

Fourth Edition

Fishermen's Direct Marketing Manual



Sea Grant
Alaska
Oregon
Washington

Fishermen's Direct Marketing Manual

Terry Johnson, Editor

Alaska Sea Grant Marine Advisory Program

Editorial assistance provided by Jeanette Johnson, Alaska Marine Advisory Program, and David G. Gordon, Washington Sea Grant. Design by Robyn Ricks, Washington Sea Grant. Mailing address: 3716 Brooklyn Ave. NE, Seattle, WA 98105. *www.wsg.washington.edu*

The Marine Advisory Program is a unit of the School of Fisheries and Ocean Sciences, University of Alaska Fairbanks, and is funded in part by Alaska Sea Grant College Program. Mailing address: 1007 W. 3rd Ave., Suite 100, Anchorage, AK 99501. *www.marineadvisory.org*.

Photos courtesy of Alaska Sea Grant College Program, Washington Sea Grant and Desire Fish Company of Bellingham, Washington.

Funding from NOAA National Sea Grant to the Alaska Sea Grant College Program, grant NA16RG2321, A/152-18.

A publication of the University of Washington, pursuant to National Oceanic and Atmospheric Administration Award No. NA16RG1044. The views expressed herein are those of the authors and do not necessarily reflect the views of NOAA or any of its sub-agencies.

WSG-AS 03-03
MAB-53
rev. 10/07

Contributors

Torie Baker

Alaska Sea Grant Marine Advisory Program

Bennett Brooks

formerly Alaska Department of Commerce and Economic Development

Liz Brown

formerly Alaska Sea Grant Marine Advisory Program

Paula Cullenberg

Alaska Sea Grant Marine Advisory Program

Greg Fisk

Alaska Sea Grant Marine Advisory Program

Sarah Fisk

Washington Sea Grant

Ginny Goblirsch

Oregon Sea Grant (retired)

Steve Grabacki

Graystar Pacific Seafoods

Pete Granger

Washington Sea Grant

Glenn Haight

Alaska Sea Grant Marine Advisory Program

Michelle Kern

Alaska Business Development Center

John Kingeter

NOAA Fisheries Office for Law Enforcement

Donald Kramer

Alaska Sea Grant Marine Advisory Program

Donna Parker

formerly Alaska Department of Commerce and Economic Development

Brian Paust

Alaska Sea Grant Marine Advisory Program (retired)

Allison "Sunny" Rice

Alaska Sea Grant Marine Advisory Program

H. Charles Sparks

University of Alaska Fairbanks

Cynthia Wallez

Alaska Sea Grant Marine Advisory Program

Table of Contents

Foreword	iii
1. Defining Direct Marketing.....	1
2. The Seafood Distribution System.....	5
3. Marketing Concepts	9
4. Finding Customers	13
5. E-Commerce.....	17
6. Planning Your Business	21
7. Accounting for Your Fish Business.....	25
8. Considering Quality	29
9. Working with a Custom-Processor	33
10. Packaging and Shipping of Seafood Products	37
11. Live Shipping.....	41
12. Setting Up Your Boat for Direct Marketing	43
13. Direct Marketing Prawns	47
14. Marketing Internationally.....	51
Appendices.....	56
A. Fisheries Business Financing and Business Assistance in Alaska	56
B. Working with the IFQ Program.....	58
C. Safety and Sanitation Requirements	61
D. Common Mistakes in HACCP	62
E. Salmon Roe	65
F. Refrigeration Considerations.....	66
G. Box Insulation Values and Gel Pack Effectiveness.....	67
H. Processing and Storage Costs.....	68
I. Alaska Seafood Marketing Institute Recommended Statewide Quality Specifications for Alaska Fresh and Frozen Wild Salmon	69
J. Permits, Licenses, Bonds, Reporting, and Taxes Required for Alaska Seafood Direct Marketers and Small-Scale Processors	72
K. State and Local Regulations in Oregon	78
L. Marketing Your Own Catch: State and Local Regulations in Washington	81
M. Sources of Information and Materials	82
N. Glossary of Seafood Business Terms.....	84
O. Business Plan Outline.....	86

Foreword

Welcome to the fourth edition of the *Fishermen's Direct Marketing Manual*.

Since the mid-1990s, commercial fishermen have used earlier editions of this publication to help them think through the issues involved in selling their seafood products further up the distribution system than the local processor. This is what we call direct marketing.

Over the years, we have distributed thousands of copies of the manual and we have heard back from dozens of users who have told us that they found it helpful. The manual is often cited as a source of reliable information on the subject and as an example of university and Sea Grant support of the fishing and seafood industries.

This edition is not only updated but also significantly expanded from previous editions. We have invited new contributors and are fortunate to be able to include work by some talented experts in their fields. We have added sections on accounting, e-commerce, working with custom processors, direct marketing shrimp, setting up a boat for direct marketing, avoiding HACCP problems and other topics.

Readers have given us suggestions on how to make it better and we have tried to incorporate those suggestions in this edition. Even if you have a copy of an earlier edition, you may want to read through this one; you'll find many changes and we hope they are improvements.

Where did the new material come from? Are your editor and writers better informed than before? Possibly, but more importantly, the industry has advanced and the working direct marketers are developing new knowledge and skills and are sharing what they know. We've brought in some new contributors. We've updated sections where regulations have changed and where technology has advanced.

In addition to the authors listed on the title page, I wish to thank Jeanette Johnson for checking contact information and Cynthis Wallesz, George Meintel, Heather Maxcey and Dr. Quentin Fong for reviewing content and providing supplementary material.

We at Alaska Sea Grant wish to thank our partners at Washington Sea Grant for the excellent content, copy editing and design work they have contributed to this publication. It truly is a collaborative effort.

This is the fourth edition of the manual but probably not the last. So if you, the reader, find errors or outdated material or can contribute additional information for the wellbeing of the industry as a whole, please send me a note and let me know. *The Fishermen's Direct Marketing Manual* is a living document and it depends on an open exchange with active participants in the industry.

Terry Johnson, Editor
Alaska Sea Grant Marine Advisory Program



Defining Direct Marketing

1

Times are changing in the fishing industry. Because of lower ex-vessel prices, boat limits, reduced tender and other services and, in some cases, a lack of buyers altogether, more fishermen are looking into direct marketing. Change can be threatening and many fishermen are worried about their futures.

Change can also provide opportunity. Development of the Individual Fishing Quota (IFQ) program, for example, has given fishermen a chance to harvest their quotas a little at a time and retain ownership of their catches to get the best value. New chilling and processing technologies are making it easier to handle, store and transport fish products. The Internet has opened up the world to sellers of all kinds of goods, including fresh and processed seafood.

Direct marketing usually means more work, greater anxiety and uncertain returns. But growing numbers of fishermen on the West Coast and in Alaska are finding that the rewards, in terms of financial success as well as greater connectedness with the food industry and the ultimate consumers, make it worthwhile. Remote locations, high catch volumes, variable species and grades and a variety of other factors still make direct marketing impractical for most fishermen. This chapter is intended to help you think through what direct marketing means to you.

What Is Direct Marketing?

In this book, direct marketing means selling a product to a user at a point on the distribution chain higher than the primary processor. The word “marketing” is used differently from the way it is used in other businesses.

Normally, a fish flows through the chain in a manner something like this: the catcher sells to a processor, who sells to an importer or regional distributor, who sells to a local wholesaler, who sells to a retailer (store) or food service operator (restaurant or hotel), who sells to the public. Sometimes secondary processors are involved, as well as brokers, shippers and so on. A fisherman who does direct marketing might sell directly to the public or to one of the wholesalers or distributors somewhere in the middle of the chain.

Some people call this “getting rid of the middleman” but, in reality, you don’t get rid of the middleman, you *become* the

middleman. You do the jobs, incur the expenses and take the risks that someone else would have, and, hopefully, you get paid those shares of the final value of the product.

■ ■ ■ **You don’t get rid of the middleman, you *become* the middleman.**

A dead fish is a raw material. Its relationship to the retail item or restaurant entrée is something like the relationship of a felled tree in the forest to a finished house, or at least to milled lumber in a lumberyard. The value of the final product is a reflection of the intrinsic value of the raw material plus the value of the labor, technology and risk involved in bringing it to the market in its finished form.

Fish is highly perishable, subject to wide variation in quality and constantly changing market demand. Risk is a large part of the value of a finished seafood product. If the product is mishandled, delayed in shipment or sold during less than optimum market conditions, it can drop in value or become entirely worthless. Each entity in the distribution chain assumes some of the risk involved in bringing the product to market, and the fisherman who becomes a direct marketer assumes a greater share of that risk, in direct proportion to the greater share of the profits he or she expects to realize.

What Kind of Direct Marketing Might Be Best for You?

The first step as a fisherman considering direct marketing is to decide what kind of operation would best for you. Do you want to sell directly to the public? If so, you become a retailer and you may spend a lot of your time sitting in a shop, on your boat in harbor or at a roadside stand, with a scale and a cash box, meeting your customers face-to-face. Even if you ship or deliver your fish to your buyers, you will have to be a salesman, talking up the quality of your product, answering lots of questions, making lots of calls.

Don’t have time for that? Maybe you want to wholesale your product, delivering to individual restaurants or fish markets. If so, you won’t have to sit in your pickup by the side

of the road, day after day, but you probably will have to meet a delivery schedule of one or several days a week. And you'll have to produce the size, quality, species and form of product your buyers demand.

Maybe you would rather sell to a wholesaler and let that person worry about making the sales, delivering the product and collecting payment. Of course, the amount you get for your fish will be lower, but your time commitment will be less.

The further up the distribution chain you choose to sell, the greater portion of the total retail value of the product you get to keep for yourself, but the more time, complexity and risk is involved. The only way to completely avoid some level of additional complexity is to sell ex-vessel to your processor and avoid direct marketing altogether.

So, What Exactly Does a Direct Marketer Do?

A fisherman who wants to take on the challenge of direct marketing must do some or all of the following:

- Obtain all licenses and permits, pay bonds, collect and pay fees, complete forms and file reports, submit to inspections and file and pay quarterly and annual taxes
- Find potential customers, sell them on the product and negotiate prices and terms. This can mean buying advertising, writing and printing promotional materials, posting Web sites, sitting at booths in farmers markets or aboard the boat at dockside or going on sales trips to distant cities
- Gill, gut, slime, wash and re-chill the fish for shipment or dockside sale
- Chill or refrigerate the catch on-board or immediately after getting to shore
- Box or package the product and physically move it off the boat
- Acquire equipment (such as a truck) to transport the product to the point of sale or delivery, arrange shipment, weigh, prepare airbills, arrange transportation and drayage, transfers and final delivery
- Purchase packaging and labeling materials and containers and, possibly, arrange backhaul of shipping containers
- Send bills, collect payment, deal with customers who don't pay and with complaints, as well as negotiate terms and specifications

A direct marketer may also want to process the catch before selling it. If so, the fisherman then becomes a processor who also is a direct marketer. This manual does not address processing. For a similar primer on basic seafood processing, see *A Village Fish Processing Plant: Yes or No?* published by the Institute of Social and Economic Research, University of Alaska Anchorage,

For some people, the idea of going into direct marketing is an emotional response to what they consider an unjust or worsening situation.

available on the Web at www.iser.uaa.alaska.edu/ResourceStudies/VillageFishProcessingHandbook/default.htm.

Some direct marketers perform or contract custom secondary processing. They make steaks, fillets or portions or produce salted, pickled, canned or smoked products. Some make up fancy packaging

with eye-catching labels. Some put on promotions and do in-store cooking demonstrations. Some open retail shops or kiosks, print mail-order catalogs, design tee-shirts and print postcards with designs that complement and promote their fish products. Some start out as direct marketers of the fish they catch themselves and end up as buyers, processors and sellers of fish they get from others. In essence, they become fish companies.

Is Direct Marketing for Me?

For some people, the idea of going into direct marketing is an emotional response to what they consider an unjust or worsening situation: "The processors are ripping us off. They're making big bucks on our fish and paying us peanuts. I'm not gonna take it anymore; I'll just sell my own damn fish."

Whatever your motivation for considering direct marketing, you need to take stock objectively of your situation. This includes an assessment of your personal strengths and weaknesses as a potential direct marketer. A good fisherman doesn't necessarily make a good fisheries businessman, and a businessman is what you are if you do direct marketing.

Cash flow is a big problem for many direct marketers. Instead of landing fish and getting paid, you are landing fish and paying money to others. Then, after paying processing, shipping, insurance, packaging, cold storage and distribution costs, you may have to wait 30 to 90 days to get your money, hope that your customers come through with that money and hope you don't have a product claim. Remember that all these cash flow considerations come on top of all the costs associated with your boat, crew, equipment and overall fish-catching operation.

How Do I Get Started?

If you feel direct marketing might be for you, it's time to start planning your new enterprise. Every business should begin with a written plan (described in Chapter 4 of this publication). In it, you need to put down what your objective is, how you will operate, how you will keep track of your income and expenses, what you project your income and expenses to be, how you intend to grow and so on. The seafood industry is constantly changing and what works today very likely will not be effective a few years down the road, so it is important to incorporate a plan for growing and for adapting to change in the market. Keep in mind also that it commonly takes three to five years for a new business to actually

Got the Goods?

What's your potential as a direct marketer? Test yourself by honestly answering these straightforward questions:

- Am I good at bookkeeping and paperwork?
- How do I feel about being a salesman, either on the phone or in person? Do I enjoy meeting and talking to people?
- Am I good at taking care of details?
- Do I need to be paid immediately or can I wait to collect my money?
- How forceful can I be at making people pay what they owe me, or otherwise do what they have agreed to do?
- Can I stick with one task, week after week, year after year, or do I quickly become bored and need frequent change?
- Am I willing and physically able to do the extra work and commit the additional time to run a direct marketing operation? Or do I prefer to put the boat away and forget about fish at the end of the day or the season?
- Is my family supportive of this change, and can they make any necessary adjustments so that I can spend the additional time and money on the business?

If you feel you're psychologically suited to direct marketing, take stock of your strengths and weaknesses in the business:

- Do you have the equipment and a boat big enough to properly handle the product?
- Do you have, or have access to, ice or chilling machinery?
- Is there regular, reliable, affordable transportation from your point of landing to the location of your potential customers?
- Is the timing and volume of your catch conducive to taking the time out to handle and transport fish and to meeting the volume and delivery frequency demands of your customers?
- Is the species mix and intrinsic quality of your catch appropriate to the market? (see *intrinsic* vs. *extrinsic* quality explanation in this manual)
- Do you have a plan for the roe (if your product is salmon) and for fish that your customers don't want because of species, size, condition or other factors?
- Do you have customers already lined up, or do you have a plan for selling your product?
- Do you have available cash for up-front operating expenses and to cover cash flow in case some customers don't pay or if, for some other reason, the operation is not immediately profitable?

become profitable, so your plan has to address cash flow and your family's financial subsistence while your business is developing. See Chapter 6 of this publication for information on how to write a business plan and where to get assistance.

The second step is to draw up a marketing and sales plan and start lining up customers. Many fisheries businesses have failed because their owners bought the equipment, hired the help and produced a quality product but couldn't find a buyer willing to pay enough to make the venture profitable. With a few exceptions, seafood products do not "sell themselves." It is up to you not only to find potential buyers but to make it clear to them why they should buy from you rather than from someone else.

Direct marketers often base their sales pitch on two things — superior quality and personal service.

The terms "sales" and "marketing" are not the same thing. Sales is the process of presenting the product to a presumably willing buyer and persuading them to exchange their money for that product. Marketing is a wide range of activities, most of which precede the actual sale, that may include networking, public relations, advertising, market research, producing samples, conducting demonstrations, developing consumer-attracting packages and labels and providing generic information to consumers about the qualities and attributes of the kinds of products you hope to sell. For some examples of marketing, look

up the Web sites of some existing direct marketers and see how they position their products in terms of flavor, purity, nutrient content, sustainability, the cultures of the harvesters and harvest locales.

You must be able to determine both who will buy your product and how much they are willing to pay for it. Pricing is one of the most important skills of small business — too low and you don't make money; too high and either no-one will buy or someone will buy initially but soon a competitor will come along and undercut you. That means market research. Before you invest very much capital and time into developing this business, you are well advised to study the current market and market trends, understand the factors that influence price fluctuations and make reasonably accurate wholesale and retail price projections for the coming season. Until you have a pretty good idea of how much you will be paid, you have no way of knowing whether the business will be profitable.

Once you're satisfied that you can find customers who will pay you a price you can live with, as demonstrated in the *pro forma* of your business plan, you need to check on all the pertinent laws, regulations and requirements. Fish is food, and when food goes into commerce, governments get involved and they tend to take very seriously their responsibility to protect public health. Depending on your type of operation, you will probably need at least one business license and you may need a processing facility permit. You may be required to obtain various state and local fisheries business licenses, you may have to post a bond, you may have to complete and submit fish tickets, and may have to pay various taxes and fees. You can't do all this halfway; many a budding small-scale fisheries business has been nipped by state and federal regulations that control, restrict or prohibit certain types of operation.

When you've figured out all the above, you may need to deal with financing. Start-up businesses that are undercapitalized — don't have enough money to buy equipment and supplies and to operate at a loss for a while — tend to fail. If you have enough money in the bank you can self-finance, but remember that you are borrowing from yourself and that money could be earning interest or used productively in some other investment (the so-called *opportunity cost* of capital). Money may be available from outside sources, but, in most cases, it is hard or impossible to borrow money to start a small-scale fishery business for the simple reason that it is risky. To borrow, you need to have your ducks in a row, so be prepared to provide financial statements, tax returns, financial references and other required information. Often collateral in the form of property is required to secure business loans. Only rarely are cash grants made to start-up fisheries businesses.

After you have successfully addressed each of the issues listed on the prior page, you have a myriad of details to attend to. You need to order packaging materials, reserve transportation space, arrange transfer from your boat to the airline, trucking company or other means of transport, secure appropriate insurance, modify your boat and equipment, and decide whether to hire help. In your "free" time you probably will be studying market newsletters, reading seafood industry journals, informing yourself on the jargon and operating procedures of transportation companies and learning about packaging and product quality assurance, credit and financing and marketing techniques.

All this is the language and practice of your new occupation. As soon as you decide to take your fish anywhere other than to your local tender or processor's dock, you are no longer in the fishing industry. You're now in the seafood industry.

It is up to you not only to find potential buyers but to make it clear to them why they should buy from you rather than from someone else.

The Seafood Distribution System

2

For a fisherman to compete in the seafood market, it is important to understand the seafood distribution system. This helps identify potential customers and potential competitors and determine where one can best be positioned to build on their strengths and capabilities.

The distribution system in the United States may seem unnecessarily complex, with too many different entities taking cuts of the product's retail value. Rest assured that in some other countries, it's even more complex. However, there are reasons that the seafood industry trades fish the way it does. The distribution system ensures adequate supply, minimizes waste, provides convenience and accountability and minimizes risk at each level of the chain.

If retailers and restaurant chefs could get fish that was just as good and get it just as reliably and for less money through bypassing the distribution chain, they would do so. In fact, some of them do — buying directly from fishermen. If selling your fish straight to the retailer or food service operator is your goal, it's important to understand what all those people who are links in the distribution chain between you and the people who eat your fish do.

The American Seafood Distribution Chain

“Chain” isn't the best word to describe the seafood distribution system, because it implies a single direct line of travel, when there are multiple routes that a fish or fish product can take from your boat to the final consumer. Some might more accurately describe this system as a web or a network, with numerous interconnected routes. However, for the sake of easeful discussion, the more commonly accepted term, chain, is used in this text.

After a fish comes out of the water, the chain begins with the processor, who sorts, weighs, grades, slimes and washes the fish and then performs *primary processing* tasks such as heading and gutting. The processor may also perform *secondary processing* tasks, such as freezing, steaking, filleting or canning. Some processors also do additional *value-added processing* tasks such as smoking, battering and breading, cutting portion-control servings, vacuum packaging and gift boxing.

Also known in the trade as **packers**, processors may sell their products to buyers at any point along the distribution chain, but, because of the normally large volumes, they usually sell to traders or distributors (described later in this section). They may also sell to supermarket chains. In some instances, primary processors sell to specialty or custom processors who do the value-added processing. In any case, processors take raw materials – dead fish – and convert them into products that can be used by the consumer at home, the supermarket seafood department, the chef in a restaurant or someone else.

Some processors have their own **in-house sales staffs**, who are employees of the processing company. They are paid a salary to make the calls, fill the orders and ensure that the company's entire pack is sold at the best possible price.

Other processors use the services of a **broker** — an individual or firm that sells products on a commission. A broker usually doesn't take ownership of the product and, therefore, has little risk, or “exposure,” and no inventory cost but receives typically only about three percent of the value of the sale, or as little as \$.05 per pound. A broker may work out of a small office with little more than a telephone, fax and a computer and probably spends most of the day on the phone. Brokers have to move large amounts of product to make a living, so they usually deal in volumes rather than specialty items. Direct marketers may find it advantageous to pay a broker to sell their fish, freeing up time for other tasks.

Brokers normally work specific geographical territories, such as the Upper Midwest or New England. For a fisherman to compete in the seafood market, it is important to understand the seafood distribution system. This helps identify potential customers and potential competitors and determine where one can best be positioned to build on their strengths and capabilities.

The distribution system ensures adequate supply, minimizes waste, provides convenience and accountability and minimizes risk at each level of the chain.

Sometimes the first buyer to take product from a broker is a **trader**. Traders buy from anyone, including fishermen, packers, re-processors and other traders. They buy at the lowest price they can and sell to anyone, at the highest possible price. They may sell to wholesalers (described below) or directly to retail and foodservice outlets. They like to buy “back-to-back,” meaning they have it sold before they take possession of the product, and they like to buy “on the float,” which means they arrange the terms of their purchase so that they have already been paid by their customer before they have to pay their supplier. The trader's role is to match the flow of product to the demand by “sourcing” from numerous suppliers and trying to supply each customer what he or she needs.

Distributors, also called **wholesalers**, actually deliver product to the users. Usually, distributors have fleets of refrigerated trucks and those trucks do the door-to-door delivery of products to restaurants and supermarkets or to central warehouses owned by or serving those restaurants and supermarkets.

Most restaurants use small quantities of fish, no more than a few hundred pounds a week of all species, and individual supermarkets don't sell much more than that. Neither has much refrigerated storage on-site, so the wholesaler's job is to provide a slow, steady flow of product to meet the buyers' daily needs. Wholesalers are buffers between the processors, who may produce millions of pounds a year, and dozens of end-users, each of whom needs only hundreds of pounds a week or a few pounds a day.

In most cases, distributors service the geographical regions where they are located. They commonly handle several lines of seafoods so they can supply their customers not only salmon from Alaska, for example, but also catfish from Mississippi, shrimp from Thailand, quahogs from New England and mahi mahi from Hawaii. They buy the product and then re-sell it at a profit, but profit margins are typically only 10 percent to 15 percent because of competition among distributors with similar or identical products. They buy from processors through their sales staffs or brokers, from customer processors, from fishermen and even from one another. To minimize risk, they prefer to buy small quantities and re-sell quickly but, because each wholesaler buys to re-sell to several retailers, their volume is greater than that of their customers. Much of the distributor's stock-in-trade is the relationship he or she has with each customer; they trust the distributor to supply consistent quality and in volumes meeting their needs and nothing more. Because they buy in large volume, distributors can add small profit margins to their costs and still sell to their customers at competitive prices.

Small distributors are sometimes called **jobbers** and run one or two trucks. Large companies, some with annual sales of tens of millions of dollars, are called **broadline** distributors, and they distribute many kinds of products besides seafood, including meats and fresh produce. They may have whole fleets of refrigerated trucks. Some distributors specialize in sales to retail outlets or foodservice, and some do both.

The trader's role is to match the flow of product to the demand by “sourcing” from numerous suppliers and trying to supply each customer what he or she needs.

Foodservice is the trade term for businesses that serve meals. The class includes restaurants, kiosks and street vendors, schools, prisons, hospitals, airline meal providers, corporate cafeterias or mess halls, entertainment venues such as sports stadiums, and special facilities such as cruise ships and lodges with meal services. Large restaurant chains account for a big part of the food service seafood consumption. Foodservice operators usually buy from distributors, although some restaurants are willing to buy directly from fishermen. Usually these are the so-called “white tablecloth” restaurants that feature very high quality fare at commensurately high prices.

The other endpoint of the distribution web are the various kinds of **retailers**, including supermarkets, fish markets, health food stores, gift shops and even certain upscale department stores. Most supermarkets in America are members of **chains**, that is, many stores owned by a single parent company. Large chains have tremendous purchasing power and move large volumes of product, which can be a good thing if you have tons of fish to sell, but a bad thing if you're trying to sell small quantities. They buy from a number of different processors and distributors. Most chains have their own central warehouses in large cities and may operate their own fleet of delivery trucks.

Supermarkets (and some other retailers) have extremely high *overhead* costs — building and space rental or purchase, maintenance, staff, advertising, etc. In addition, they experience *shrinkage*. This is the term for product value lost to factors such as in-house cutting and trimming, declining quality during storage or desiccation from exposure to air. Because of these overhead and shrinkage costs, retailers have to *mark up* their products by 30 to 40 percent or more. Retail mark-up is the largest single component of the increase in fish price between the catcher and the consumer, but, because of overhead and shrinkage involved, it isn't all “profit.”

Other retailers include those who market seafoods at the dock or from a truck beside the road, via mail order, over the Internet, by subscription and through direct home deliveries. Keep in mind that the aforementioned individuals are just the players who buy, sell, or take ownership of the product. Others are in the distribution chain include:

- Delivery services, such as Federal Express, United Parcel Service, DHL and the U.S. Postal Service
- Trucking and air freight companies, which also transport product
- Cold storage companies, which perform a variety of services, including flash freezing, holding in frozen storage, retrieving, sorting, boxing and, in some instances, certain kinds of custom processing
- Drayage firms, which pick up products at the airport and deliver them to a buyer, or *vice versa*.

Plenty of people are eager to get their hands on your fish, in hopes of making a few percent or a few cents per pound by processing, handling, sorting, transporting, delivering, preparing and selling the product. It's complicated in the U.S. but even more so in other countries. See the chapter in this manual on marketing internationally.



Marketing Concepts

3

In Chapter 1, we defined direct marketing as selling a product at a point up the distribution chain. In this section we will examine the concept of marketing.

Each business needs a marketing plan. It helps you decide how to reach and sell to your customers and much more. It helps you define and position your business. It helps you to think about your competition and how to distinguish your product from theirs. It helps you set your pricing. It helps you develop an image or identity that guides your operations.

What is Marketing?

Marketing does not mean sales, although sales is part of marketing. Marketing defines potential buyers and their needs and how to meet those needs.

Marketing includes:

- **Situation analysis** – Deciding who you are as a business and what you want to do and, then, figuring out how to accomplish it in the marketplace.
- **Market research** – finding out who your customers are, their characteristics and what they want. It may also involve identifying your competitors and how their products (or services) differ from yours.
- **Competitive analysis** – finding out who your competitors are and what they do well and not so well and how your business differs from theirs. This is part of market research. Pricing is also often part of market research.
- **Promotion** – Public relations (or PR) – getting your name out there through the press, any way you can.
- **Advertising** – usually paid advertising in newspapers and magazines, radio, and, now to a very large degree, on the Internet.
- **Sales** – making cold calls, servicing accounts, **taking** orders, billing, filling orders and collecting payment.

Could you skip any of these components? Sure, but you would risk overlooking important factors in attracting customers.

Could you get someone else to do your marketing for you? Probably not, unless you're big enough (and some of your competitors are) to hire a marketing staff; besides, no-one else knows your business and can represent it as well as you.

It's a lot more cost-effective to put the content of your advertising into a Web site than to buy a huge ad to contain it all.

Situation Analysis

This is where you decide what to call your business and how to phrase your **mission statement** or **defining statement**. In other words, you have to be able to put into a few words who you are as a business and what you sell.

Market Research

Corporations pay millions of dollars for market research that tells them who buys their products and why, who buys competing products and why, what consumers are looking for and how they make their buying decisions, how much they will pay, and so on. You need to do the same thing, on a smaller scale.

A part of market research is consumer **demographics**. Organizations like Alaska Seafood Marketing Institute can tell you who buys what kind of seafood, where they live and so on.

Another part is competitive analysis — that is, understanding who the competition is, what they offer, why people go to them and what you can do to get some of that business.

Your market research should help you decide on **marketing objectives** — that is, ways of measuring the success of your marketing. In your business' first year, you may simply want to sell some fish. After that, your objectives may be to increase sales by a certain percent or produce certain levels of revenue (income).

Pricing simply means deciding how much to charge for your product.

There are two approaches to pricing: decide how much you want to make per unit (such as pound of fish), calculate your costs and, then, add the two; or find out what others are charging for similar products and, then, charge the same, more or less, depending on your reasoning.

In general, pricing is not a good way to compete in the seafood business, for two reasons. One is that if you charge a lower price than a competitor, it can give the impression that your product is not as good. The other is that if competing businesses start lowering prices to get bigger shares of customers, they can quickly get into a **price war** and drive down the price to the point that no-one makes a profit.

Experienced seafood marketers advise that you set your price at a level where you can make a profit and then stick with it. Compete instead on the basis of quality and service.

Along with pricing, market research will help you determine **product placement**, which means getting your product before the right audience. You may want to sell directly to the consumer or you may want to sell to food services or regional distributors.

Promotion

Promotion is every way, other than paid advertising, of getting your business name and product before potential customers. Promotion can include **publicity** (just getting your name and face out there), and **public relations** (creating a positive image of your business in the eye of the public). Here are some examples:

- Press releases to newspapers, magazines, radio stations sponsorship of community events, public radio, conservation groups, etc.
- Promotional items such as pens, mugs or clothing with your company logo
- Public speaking engagements and slide shows
- Brochures, business cards and rack cards
- Magnetic signs on the sides of your truck
- Exhibiting in trade shows.
- Cooking demonstrations.

Guerilla Marketing

Some forms of promotion are expensive, others inexpensive and some free. Guerilla marketing is described as “an unconventional way of performing promotional activities on a very low budget.” Here are some approaches to guerilla marketing:

- Use your friends, relatives, community and job connections to spread the word

Sales Tips:

If you're lucky, all your marketing efforts to this point will result in some people actually buying your product. This can occur in several ways, and it's important to treat this step as carefully as all the others:

Be specific. — Make sure to clearly spell out what you are providing (species, quantity, weight, type of processing, packaging, delivery and schedule).

Specify type of payment and terms. Provide clear instructions for reaching you in case of any problems with the order.

Be businesslike. — The way you take people's money can tell a lot about your personality, professionalism and the quality of your business. Be businesslike but don't appear greedy, and, at all times, be gracious, polite and appreciative.

- Guest-write or ghost-write newspaper or magazine food columns or articles
- Use the VIP concept and reward past customers with price discounts, special treatment or gifts, such as hats and tee-shirts, with your logo
- Send bulk-mail fliers to people in the industry
- Trade Internet Web site links
- Offer cash finders' fees or other awards to people who refer customers to you.

Advertising

Although no distinct line separates guerilla marketing from advertising, we can define advertising as promotion in print (newspaper and magazine) or broadcast (radio and TV) media that you have to pay for, and also includes the Internet.

Advertising is expensive. A square inch or two in the back of a national food or hospitality industry magazine can cost several hundred dollars and a half page or full page may cost several thousand dollars each month. Furthermore, most advertising professionals will tell you that a single ad is almost worthless; you need to conduct an **ad campaign** over a period of months or years.

If you consider buying paid advertising, you need to determine a measure of **return on investment** (or ROI).

If you spend \$1,000 on an ad campaign and you can trace \$5,000 worth of sales to that campaign, then you have an ROI of \$5 per dollar invested. That may sound good but remember, that's not profit; you still have all the other costs of your business.

To determine your ROI, you need to track the sources of your customers. You can use various devices, such as e-mail or mailing addresses or phone numbers that are coded to indicate where the **prospect** (prospective client) got your contact information.

When buying advertising, the quoted rate usually is for the space (or air time, in broadcasting) and you have to supply the content. This can be a significant additional cost if you have to hire someone to make up your ad, but it may be better to pay than try to do it yourself, unless you're already a pro at writing copy and doing layout.

Increasingly, businesses are buying small print ads simply to direct traffic to their Web sites. The ad needs little more than a catchy phrase (like your defining statement) an attractive photo or logo and the Web site address. It's a lot more cost-effective to put the content of your advertising into a Web site than to buy a huge ad to contain it all.

The Internet

The World Wide Web has fundamentally changed marketing. Many small businesses now devote most of their ad budgets to Website design, optimization and maintenance.

The Web is the great business equalizer; the number of pixels a viewer sees on a page of your Web site is exactly the same as on General Motors' site.

Advantages:

- Can be accessed by virtually any computer in the world
- Relatively low cost to set up
- Continues to do its job indefinitely rather than for a single day or month
- Can include large quantities of copy and all the photos you want to post
- Can be made interactive and can be used to take bookings
- Can link and be linked to other Web sites.

Disadvantages:

- Immense competition on the Web
- Most users only look at the first few sites that show up on a search
- Viewers scan quickly so they may miss important information
- Searchers must use the correct key words to find your site

- Web sites must be maintained, and must be supplemented with other kinds of advertising to be effective.

Effective Web advertising is a mixture of art and science. Unless you're already an Internet techie, you'll probably want to hire a pro to build and optimize your site. Keep in mind, however, that people who know how to create Web sites don't necessarily know how to write great advertising copy, and more importantly, don't necessarily know how to design effective Web sites.

Here are some factors that make productive Web sites:

1. **Good site design.** Get your most important information up front, since people spend only a few seconds looking at a site unless it really grabs their interest. Ensure easy site navigation.
2. **Search engine optimization.** Web sites only work because people use search engines to find you, so your site has to be built and include the right key words and links to make it rank highly with the main search engines. The search engines change their ranking criteria from time to time, so the optimization must be renewed periodically. Use links to other sites but learn to use them correctly.
3. **Web analytics.** You can hire services that analyze your site and tell you how many "hits" your site is getting, where (what search engines) they are coming from, what key words are drawing the hits, and so on.
4. **Effective copy.** Define your product, its qualities and your service. Use simple, clear language and leave out buzzwords. Develop a personality in the site and speak directly to the prospective customer. Include a call to action (ask the reader to buy now). Be sure that the site tells the reader how to reach you by e-mail, regular mail, phone and fax.

Additional information is contained in this handbook's chapter on e-commerce.



Finding Customers

4

A few direct marketers actually are pestered by would-be customers begging for fish. But most spend a lot of time and energy finding customers and holding on to them once they've made initial sales.

Too often individuals have built small-scale processing plants, purchased expensive packaging, enlisted family and employees to help with handling the catch, rearranged their fishing schedules to put fish into their line and then, only as an afterthought, stopped to ask themselves, "Now, who is going to buy my products?"

How you go about finding customers depends a lot on what you are planning to sell. It also depends on where you expect to sell your catch and how you plan to supply your customers, once they've shown an interest.

Defining Your Product

It may seem like circular reasoning: to find customers for your product, you need to clearly define that product, and to decide on a product, you need to consider what the market wants.

Sixty years ago, most troll salmon was brined in barrels and sold as "mild cure." Cod was heavily salted and dried. You'd have a hard time selling either of those products now.

Market research comes in a variety of forms, some very sophisticated and some as simple as making a few calls and asking people what they want. But simple or complex, it's essential that you do it. If you've got alligator chums and the market wants ocean-brite reds, being the best salesman in the world isn't going to move your product. Usually the issues aren't that clear-cut, however. You might have the right species and right grade, but are the fish the right size, are they dressed or processed to the buyers' specifications, can you provide them in the right quantities and at the right frequency? You need to define clearly what you can provide and then go looking for buyers who want that specific product.

Direct marketers often have little choice in the species, grade, form and quantity they can supply, because those factors largely are determined by Nature. Custom-processing, preserving, packaging and storage may give direct marketers

some control over their offerings but at a cost of cash and operational complexity.

The same fish that may be impossible to flog headed and gutted (**h&g**) in a plastic bag might go like "hotcakes" as a smoked-side or a portion-controlled entrée in a microwaveable retort pouch.

Sometimes the easiest and most profitable thing to do is to pull the catch one-by-one out of the iced hold and sell it as-is, directly to the customers lined up beside the boat at the dock. But catcher-seller direct sale to the public only works where fishermen have access to suitable dock sites, large enough consumer populations and the time to do it. Everyone else has to go looking for customers.

Picking a Geographical Market Area

If you're planning to sell fresh fish from your boat or pickup truck, you probably already know where you will operate. Otherwise, the choice of a geographical market is part of the strategy for finding customers.

There are some widely-held beliefs about seafood demand. The West Coast, especially the Pacific Northwest and Alaska, are well-supplied with seafood. The Rockies, Midwest and Sun Belt are crying out for it. The Deep South eats a lot of seafood but less expensive products, while New England goes for the expensive stuff. There's some truth to all these views but the picture is far more complicated. In general consumers in large urban areas now have a pretty good selection of quality fish from which to choose, but those in smaller cities and rural areas still are hungry for more seafood.

If you're thinking of shipping your fish outside the region where you catch them, think about what advantages you have regarding other regions. Are you from, or do you have relatives in, another part of the country? As many direct marketers will tell you, the best way to sell fish in another region is to live there. If not, do you have friends who could put you up while

Market research comes in a variety of forms... But simple or complex, it's essential that you do it.

you're there temporarily, scouting markets? Does the airline that services the region where you land your fish have direct flights to the region where you want to sell? Is there express trucking service? This takes you back to your personal resources inventory (described in Chapter 1 of this document): do you have any advantages in a particular location that favors it over other locations and gives you a leg up on the competition?

Which Link in the Chain?

Looking back at Chapter 2 on the distribution chain, to which link do you want to sell? If you have large volumes of product, it may be best just to engage a broker or to sell to a distributor. If you have small amounts of product, you may want to sell to individual restaurants or small retailers. Some people get the greatest satisfaction (and greatest financial return) by selling directly to consumers. Keep in mind these general principles:

- The farther along the chain you go, the greater your potential return per unit of product, but the greater the risk you assume.
- Consumers have the most precise needs in terms of volume, quality, grade, etc. Generally, they buy to provide a meal for a person, a couple or a family and may want a particular item, such as a steak or filet.
- Retailers and foodservice are also pretty choosy, but they use more per day or week, and they may be able to trim imperfections, to cut h&g fish into steaks or fillets and to hold excess product for a few days.
- Distributors and traders will buy larger quantities and may be able to use different species and grades.
- Brokers work for pennies per pound, so it's not worth their time to deal with small quantities. However, they might be able to sell a large load, possibly by parceling it out to several other middlemen.
- The farther along the chain you go (with the exception of selling off the boat or out of your pickup), the more service you'll have to provide in terms of sorting and grading, packaging, transportation, delivery and maintaining communication with your buyer. If you let a broker handle the deal, or if you sell to a trader, either person will arrange some of those services.

Finding Those Customers

OK, you've decided on your product, you think you know where in the country you want to sell it, and you've decided where in the distribution chain you want to sell. What you do next depends a lot on the product and your target on the distribution chain.

If you're looking for a broker, trader or distributor, you

might want to look in one of the **seafood industry directories** for that type of business in your target geographical region. (A list is presented in Appendix M of this document.) Some agencies, such as the Alaska Seafood Marketing Institute, publish directories of brokers, traders and other kinds of buyers and also list producers, such as yourself. Be sure that, as a direct marketer, you are listed in the next edition, along with the products and product forms you plan to sell.

You can also find restaurants, supermarkets and retail fish markets in some **industry directories**, or you can use the Internet or the Yellow Pages of your local telephone directory.

... **If you find your potential customers through directories, phone books or trade journals, you are going to have to do the selling yourself.**

Industry **trade journals** such as *Seafood Business* are good sources of ads for companies that may be looking for product to buy. It's even possible to advertise in a trade journal yourself, although that's a less common way of doing business these days. It's also a good thing to subscribe to at least one seafood industry journal and any pertinent market newsletters, just to keep up on trends affecting your business.

The appendices of this book contain listings of sources for information on finding potential buyers.

Remember that if you find your potential customers through directories, phone books or trade journals, you are going to have to do the selling yourself. That usually means making a lot of **cold calls** to strangers who may or may not have the time to listen to your pitch.

If you plan to do retail sales, you're almost certain to need to do some **advertising**. Paid print and broadcast advertising can be "black holes" of cash flow, with no guarantee of success. It usually doesn't pay to buy a single ad, big or small; advertising purchases should be incorporated into an overall ad campaign that includes a message, plans for size and frequency, and a means to measure effectiveness. You may want to contract an advertising consultant or sit down with an ad sales rep from the newspaper or radio station where you plan to advertise and get them to lay out an ad campaign. You're under no obligation to buy, but you want to know whether the ad people really have a strategy for selling your product or simply want your money.

Not all promotion is expensive as paid print and broadcast ads. Among the most effective advertising is **free publicity** you may be able to garner by attracting a reporter, photographer or film crew to your site to do a story. Think Copper River salmon and the big media hype that surrounds the first catch of the year. Sometimes **press releases** are very effective at getting you ink on the printed page. A great way to advertise is to get a local or national **celebrity** to display or talk about your product to the news media. Sometimes one will do it simply because he or she believes strongly in your product; otherwise you may have to pay

a substantial amount for a celebrity's **product endorsement**.

Some kinds of advertising you can do yourself, at relatively little cost. You can print **brochures or fliers** and distribute them by hand or by mail or by posting them on bulletin boards. You can make up products like **tee-shirts and ball caps** with your product name and logo. If you're selling from your boat or truck, you may need nothing more than a large **sign board** that you hoist in your rigging or place by the side of the road. Just be sure that such advertising is legal in the jurisdiction where you intend to operate.

Some catcher-sellers find that a sign board is good but it works even better with a little paid newspaper or radio advertising. One of the principles of advertising is that the more times a message is encountered, and in the more forms, the better it is remembered and the more likely it will elicit a response.

All these kinds of advertising are intended to draw customers to your site, but it is still up to you to sell the product. To be an effective seller, you should have a neat and clean appearance, should keep a tidy site, should be well-organized with appropriate boxes, bags, receipts and change for cash purchases. Above all, you must be outgoing, cheerful and polite and present a welcoming image to would-be purchasers. It's a business for extroverts, for people who love talking to people and who don't tire of answering the same questions dozens of times each day.

Internet Marketing

People use the Internet for nearly everything, including buying and selling fish. Direct marketers who sell frozen or value-added processed fish are reaching a much wider market than any newspaper ad would ever bring them. The Internet has the advantages of worldwide distribution, potential for excellent color and graphics, capacity for large amounts of information in a single ad (Web site) and relatively low cost. It also has the potential of direct purchases through the Web site itself.

The main downside of posting a Web site is that there are many millions of them already posted, and it is a challenge to position yours in a way that it can be found by the people who are looking for your product. There are numerous tricks for making your site attractive to the search engines that potential customers use and, generally, it's best to hire a pro to *optimize* your site. Also, many of the businesses that use the Web have found that Web sites alone don't produce the results they need, so they incorporate the Internet into their overall ad campaign and use print or broadcast advertising to drive customers to their Web sites.

A Few Internet Advertising Tips

- Don't try to do it all yourself, unless you're sure you have both the skills and available time. Hire a professional Web site designer to build and optimize your site.
- Change the content periodically, and always whenever your offerings or prices change.
- You'll probably have to pay to join Web malls or to be listed with certain search engines. Talk to others in the business or get advice on which malls and search engines produce good value for your money.
- Go to a major search engine site and type in some key words that relate to your products, then open the sites that come up. You'll get some good ideas about site design and prevailing prices for similar products, plus you'll see who your competition is.

Additional tips on Internet marketing are contained in Chapter 5, E-Commerce.



E-Commerce

H. Charles Sparks, Ph.D., CPA

Associate Professor of Accounting, University of Alaska Fairbanks

Glenn Haight

Alaska Sea Grant Marine Advisory Program

5

E-Commerce

The Internet has revolutionized small-business marketing and leveled the playing field for small businesses by lowering promotional costs while concurrently expanding the businesses' reach. Few companies can ignore the Internet as a marketing tool and not suffer consequences. One of the biggest impacts the Internet has had is something called "disintermediation," which describes the reduction in the cost of direct communications between producers and consumers. This has allowed the bypassing of middlemen and expensive distribution networks.

E-commerce is the use of computers to support business activities, particularly marketing and promotion. Increasingly, e-commerce encompasses a variety of business functions, including "back office" tasks such as order-processing and fulfillment, inventory management and accounting tasks.

E-marketing describes using the internet and related technologies that assist with marketing. This includes promotion, research, advertising and a host of other activities.

The most ubiquitous e-marketing application is the business **Web site**. Web sites are beacons announcing a business' presence. Web site features can range from a simple electronic brochure to a fully interactive site that dynamically adapts itself to the needs and preferences of individual customers. Setting up a company Web site can be more challenging than a traditional brick and mortar shop.

Another e-marketing technique is e-mail promotion — e-mail directed at a specific target market. Thousands of listservs link to Internet communities with some shared interest or cause. Since listserv membership is voluntary, members receive e-mail and can view postings and announcements by other members or outsiders.

Creating a Web Presence

Give careful thought to your marketing strategy and how its goals can be met by e-marketing activities. Your Web site needs to reflect your specific marketing goals. For example, if you have targeted direct sales to consumers of your fish products, your site should be rich with product information, including recipes and

themes with fishing content. If your target market is regional distributors and wholesalers, your Web site needs different content and should handle inventory queries, order processing and shipment tracking. A well-designed Web site can function like a finely tuned sales force that works for peanuts.

Marketing defines potential buyers and their needs and how to meet those needs.

Make or Buy?

Web site design has advanced beyond the technical ability of most individuals. Give serious consideration to whether developing your own Web site is the best use of your time and talents. Many fishermen have invested the time and effort to develop and maintain their own Web sites. The principle advantage of this is saving money by not having to pay someone else. The big disadvantages could be having a Web site that is problem-ridden or is ranked low by search engines.

Success in direct marketing through a Web site depends crucially on your site's ranking by search engines. They are the primary tools that customers use to find products online. Knowledge of how search engines rank sites is specialized and reserved for the domain of professional Web designers. Sites that are well-organized, use descriptive titles and keywords and are rich in relevant content generally score higher in terms of ranks. Of course you can pay to be ranked high but this can get expensive.

Irrespective of whether you make or hire out your Web site development you should give careful thought to the following characteristics:

- **Accessibility** - Limit plug-ins or other flashy components that are unnecessary. These features can enhance the experience for some folks but may discourage the majority of people within your target audience.
- **Advertising** - Limit the clutter associated with excessive advertising. Any advertising should relate to your products. Advertising slows down the performance, overpowers your

content and can distract potential customers. Links to other sites can actually boost your ranking by search engines but should be appropriate, topical and of interest to your customers.

- **Aesthetics** - Chose a format and be consistent with it throughout your site. Contrasting elements draw visitors' attention to your content.
- **Content** - Sites full of consistent content are **informative** and achieve higher ranks by search engines. Personalized content is always preferred to copied or cloned content from other sites.
- **Navigation** - It should be easy to move around in your site. Frequent and consistent use of buttons and other navigation prompts is important. Keep them the same size, color and position so that users don't have to hunt for them.
- **Speed** - Speed is probably the most the important consideration, after content. Speed is affected by many things, but two within your control are graphics intensity and server speed. Pictures and other graphics are important but use them judiciously because they slow down the rate at which your pages load.
- **Updates** - Plan on updating your content frequently. Be sure that all the links and other advertising are current and work.

Many tools are readily available to help make your site function well. Most Web host providers offer extensive support for Web site development like shopping carts, check-out processing and other useful programs that have been tested and proven reliable, and they are available as part of the subscription or at a nominal cost.

Selecting a Web Host

Web hosting has evolved considerably over the past decade. Your Web site's performance and cost will be influenced by where your site is located and the host server computer's capacity and speed. Your Web site's performance will depend on **bandwidth** available, the reliability of the server, the host's **broadband provider** and on the operating system of the Web server.

Your Web site can be located anywhere in the world and, with the right connection and host server, it can perform as if it were in the next room. Cost and performance should take priority in the decision about where to host your Web site.

Locating your Web site on a server in rural Alaska could be disastrous because your site may perform poorly or even be unavailable to customers when there are telecommunications problems, power outages, and high internet traffic.

The following are key points when selecting a Web host: server space, data transfer allowance, tech support, CGI-Bin

access, up-time guarantee, e-mail accounts and reputation. We will briefly discuss each of these but it is recommended to independently research Web hosting in order to get current information about host performance and rankings.

Server space allocations are frequently much larger than you'll likely need. Most small business Web sites require, at most, five megabytes of space. Beware of "great deals" on excessive amounts of space.

Data transfer allowance is similar to space allocations. Data transfer occurs every time someone visits your site or requests information. The more elaborate your site is, the higher the data transfer. Even sites with elaborate pictures and other graphics will do fine with a data allowance of only a few gigabytes per month. Only sign up for what you are likely to need; you can always buy more if you need it.

The quality of a host's **technical support** may be one of the most important considerations, depending on your expertise. Judge technical support by its availability and results; it should be available "24/7" and staffed by knowledgeable folks. They should have toll-free telephone numbers with short waiting cues. Avoid hosts in vastly different time zones that only provide support during limited hours.

Even if you are starting with a simple Web site, chances are that you will grow into needing **CGI-Bin access**. These are scripts or programs that perform important tasks such as processing an order, credit card processing or updating a mailing list. Some hosts will only allow you to run their pre-installed scripts on the host sever for security reasons. These may be sufficient but if your Web site is going to need scripts, then you want to be sure that the host's scripts are compatible with your Web site's programming and needs.

Up-time guarantee is a statement about the host's confidence in their server's reliability. Poor server reliability sours the best "deal" no matter how low the price paid.. All servers are down for maintenance periodically, but such down time should be very limited and occur during off hours. A strong guarantee indicates reliable, well-managed equipment.

The **number of e-mail accounts** you'll need depends on the number of employees you'll have working with customers and others through your Web site. Excessive e-mail accounts are just a waste of money.

Finally, investigate the reputation of prospective Web host providers. You can read reviews and ranking in online forums. While many companies offer Web hosting services, they are not all the same. There are important differences in how they handle problems and complaints. It is prudent to investigate the reputation of prospective host providers by reading reviews and rankings in online forums.

Marketing on the Internet

A number of techniques are effective for marketing on the Web. Some are practical for direct marketers. Examples are **e-mail promotion** and reciprocal link advertising.

One of the Internet's biggest impacts is the reduction of cost of communication between producers and consumers. This allows the bypassing of middlemen and expensive distribution networks. A big component of communication savings is e-mail promotion. Unlike "spam," which is unsolicited bulk e-mail sent to thousands of addresses, e-mail promotion is targeted at specific markets.

For example, there are thousands of listservs that link Internet communities with some shared interest or cause. Since membership is voluntary, members receive e-mail and can view postings. Listservs consisting of people interested in gourmet foods, health foods, seafood or similar topics would be good targets for e-mail promotion.

The goal of **affiliate and reciprocal link advertising** is to generate Web site traffic that results in customers for your business. Besides the techniques discussed above to get your site noticed and ranked highly by search engines, you can use an affiliate, which basically pays other Web sites to steer Web traffic your way. You enter into an agreement with another Web site consistent with your target audience's interests. Every time the affiliate sends a customer your way through a banner ad link or "click through" it generates revenue for the referring site. Newer agreements base banner advertising fees on sales generated and not just the number of referrals.

You can generate supplemental income from your Web site by displaying banner ads from other sites. This is known as reciprocal advertising.

Direct marketers might find a cooking recipe Web site a good affiliate or reciprocal advertising partner. You could have several banners advertising your Web site and displaying pictures of your products on the recipe pages for seafood or salmon or complementary dishes.

One of the Internet's biggest impacts is the reduction of cost of communication between producers and consumers.

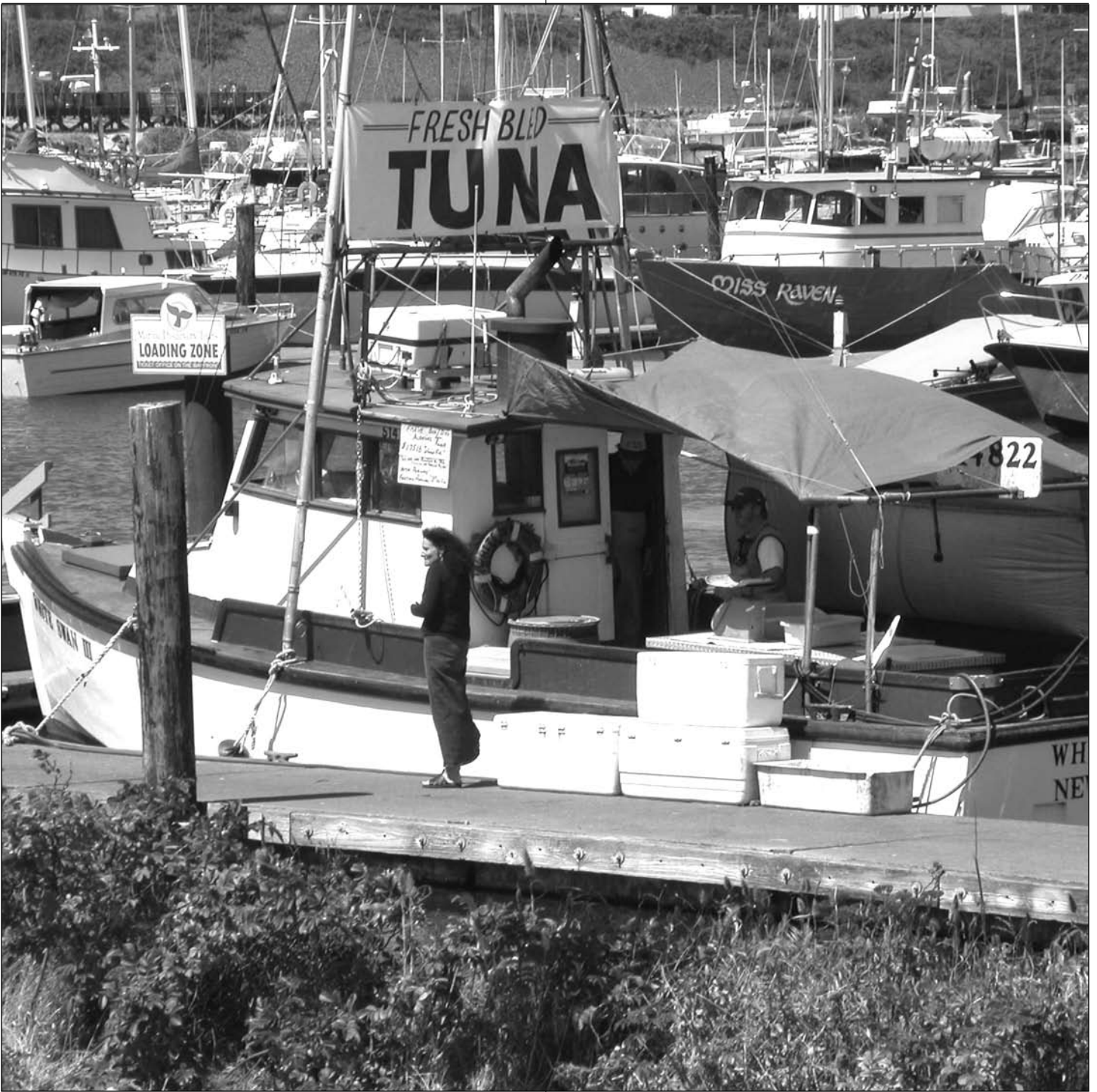
Pay-per-click is a sometimes expensive way to advertise on the Web. Advertisers bid on key words that they believe their target market might plug into search engines to shop for products. A business might buy several

key words. When the key words are entered into the search engine, the advertiser's Web site link is displayed with the search results; when the shopper clicks on the advertiser's link, that advertiser is charged the amount bid. If done properly, pay-per-click can generate significant sales and could outstrip a small company's capacity to fill orders. A number of online service providers offer pay-per-click features.

Customer Relationship Management (CRM)

It is cheaper to keep a customer than to find a new one. Keeping customers requires that you keep customers happy by communicating with them to understand their needs and how to improve your products and services. E-mails, surveys and analyzing buying habits are but a few examples of customer relationship management that help you to know your customers so that you can serve them better. Advanced e-commerce applications contain CRM modules that allow you to track your performance with respect to specific customers.

Lacking this capability doesn't mean you're off the hook. If your sales data are in a computer-usable format, you should try to identify your top customers, see what they are buying, talk to them about how they use your products and ask what features they would like that you're not currently offering. Analyze your product sales to see if you can identify trends, and use this information to prepare for upward or downward shifts in sales.



Planning Your Business

Brian Paust

Alaska Sea Grant Marine Advisory Program

Donna Parker, formerly Commercial Fisheries Specialist

Alaska Department of Commerce

Michelle Kern

Alaska Business Development Center

6

Nearly 75 percent of all start-up businesses fold within their first five years, and seafood businesses are no exception. There are many reasons. Some business concepts simply aren't viable but, in other cases, owners go broke because they lack sufficient operating capital, don't manage well enough or simply lose interest after a while. Those who remain in business succeed because they have certain skills or attitudes that help them overcome all obstacles. The following tips are gleaned from interviews with dozens of successful direct marketers and their customers.

Strategies and Plans

Consult with a variety of marketing authorities. Success as a direct marketer is dependent upon consulting with others in the business and sharing practical information. Call other direct marketers and go to one of the non-profit business development assistance programs for free or low-cost advice.

Define a target consumer population. Develop a list of products in seasonal demand in the target areas. To make direct marketing more workable, various strategies should be used, including contacting seafood brokers, making use of the services provided by other regional marketing specialists, researching printed literature, and the use of the Internet.

Differentiate your product from the competition. Why should someone buy from you rather than from someone else? Can you truly produce better quality or a better price or superior service? You probably can't deliver all three at once, but while striving to do so emphasize what you can do.

Locate buyers who are your philosophical allies. Your customers need to understand the limitations of a small operator, and be willing to work with you and at the same time to pay more for premium quality fish. Buyers who simply want the cheapest source of supply probably won't be good long-term prospects even if you are "cutting out the middleman." Buyers who are interested in product appearance, nutritional benefits, the sustainability of the resource and fishing culture are the best prospects for a small independent marketer.

Do market research. Invest time in understanding your potential markets. When possible, talk to prospective buyers and consumers in person.

Test the waters before plunging in. Try to maintain a relationship with your current processor, who may be willing to help you with your direct marketing enterprise or at least might take you back if you change your mind. You may be able to avoid burning bridges by continuing to deliver part of your catch to your processors, so long as they don't get the impression you're high-grading and just selling them the lower quality stuff. Some processors will do custom-processing for you or sell back your own catch — both possible approaches to easing your way into direct-marketing your catch.

Correctly assess your costs. It's easy to anticipate success when you see relatively high prices you can charge, but your profit is only what's left over after you pay all your costs. Remember permits, bonding, taxes, packaging, transportation, insurance, cold storage, distribution and additional boat-operating costs. Home phone bills, fuel and wear-and-tear on your truck, special clothing and equipment are all costs of doing business and should be included when projecting profitability.

React to good news. There is so much bad market news (market saturation, large carryover of previous year's products, etc.) that we often forget that positive news is present. Your business plan should exploit this information such as:

- Positive nutritional news (from infant brain development to the prevention of Alzheimer's disease in the elderly)
- Rapid development of the domestic fresh fish market
- Growing consumer awareness of seafood, due, in part, to the growth of aquaculture
- Growing preference for "wild" and organic products
- New opportunities in the frozen portion-controlled market
- The emergence of new Asian markets

Properly diversify your markets. Do not direct all of your products to a single buyer or market area. Develop markets in

Buyers who are interested in product appearance, nutritional benefits, the sustainability of the resource, and fishing culture are the best prospects for a small independent marketer.

several broad regions. As product prices in one market area begin to decline because of oversupply, promote your products in the next.

Make provisions for future growth. Plan for the growth of your business and also for your clients' growth.

Making Sales

Geographical familiarity. Locate suitable markets for seafood products and determine how to efficiently transport your products. It is important to know the geography of the region, including the available transport infrastructure present in the area.

Develop your markets. Know everything about your potential customers before making the first call. Understand the whole distribution network in your region, who the players are and where the potential customer fits into that network. Know the customer's operation and needs. Find out who in the company does the actual purchasing and arrange to talk to that person.

Call ahead for an appointment and then go prepared for an interview. Dress appropriately (Don't try to impress buyers by dressing like a fisherman fresh off the boat; dress like a businessman with a product to sell.) Take samples of your product to the interview. Provide a photo album or a brochure that describes the attributes of your product. Be prepared to tell the story of how you catch and handle your fish.

Don't promise more than you're prepared to deliver. "Under-promise and over-deliver" is the key to good business. If you over-promise, you may get the first sale but probably not repeat orders.

Try to get everything in writing, especially quantities, sizes and grades, quality standards, delivery schedules, prices and payment terms. Use fax or e-mail to confirm any verbal agreements.

Be sure to know what price the market will bear. Base prices are driven by major processors who have lower unit production costs and can get breaks on packaging and freight rates. Some buyers expect to pay fishermen less than the going rate because dealing with fishermen entails greater effort and risk on the part of the buyer. Have a strategy for responding when a competitor comes in with a lower price. Some direct marketers will lower their prices to meet competition, while others will hold the line in the belief that their quality and service are superior to that of the competition.

Be Sure You Get Paid

If possible, do a credit check on your customer and check out the company's reputation. Some companies make a habit of cheating small and remote suppliers, whom they know can't afford the time and costs involved in collection. However, word gets around, so take advantage of the grapevine.

Start off small. Never deliver large quantities of product to anyone until they've established a track record of paying promptly and in full. A common scam is to pay for two or three small shipments and then default on a large volume purchase, so build your relationship carefully.

"Under-promise and over-deliver" is the key to good business.

Set realistic payment schedules. Most corporate buyers expect to pay anywhere from 14 to 30 days (or more) after taking delivery of your fish. If you can't live with this, you need to retail for cash only. If you can negotiate payment on delivery, go for it. But that approach can greatly limit your potential market. Find out what payment schedule is normal in your market segment, then insist that your customers adhere to it.

Establish a system for verifying the quality of the product when it arrives at its destination. Consider using recording thermometers or contracting an independent agent to examine each shipment and verify that your product arrived in good condition, especially if the buyer has a reputation for rejecting shipments or not paying.

Protect yourself with insurance. Most seafood products are highly perishable and a brief delay in delivery will make them worthless. Furthermore, certain fresh and processed seafood products have the potential for causing sickness and, therefore, pose potential liability problems. Cover these risks with product insurance and product liability insurance. You can find companies providing this insurance in business directories (such as *Business Resource Guide for Alaska Fishermen*, published by Alaska Sea Grant Marine Advisory Program) and on the Internet.

Potential Causes of Failure

Inadequate capitalization. A business needs not only enough capital to purchase equipment, supplies and raw material, but also enough to pay wages and operating costs while operating for one or more years until sufficient cash flow is established.

Inadequate business planning. Some industry members have erred by assuming that a business plan need only be a brief diagram scribbled on a napkin. Hasty actions of this sort have predisposed many businesses to failure.

Failing to cope with new realities. Many processors have been unable to come to terms with changing market realities, such as lower wholesale prices for some species, higher ex-vessel prices for others and higher quality standards. Some have ceased operation.

Accounting failures. Failure to keep strict account of business finances is a chronic problem. Proper accounting practices should be used from the outset.

Underestimation of personal energy required. This is a chronic problem associated with direct marketing. Most

participants are involved in a number of fisheries. There is little time available to deal with customers, air carriers, seafood regulators and others — all of whom are essential to the success of your business. They need competent assistants on the beach. Beware of creeping exhaustion.

Insufficient credit control. Whenever possible, do not sell your product on credit. Arrange to take credit cards or insist on Irrevocable Letters of Credit if customers do not have cash. If you are convinced that credit is the only option, use a credit service to help you assess the financial status of your prospective customer. Remember, “It’s not a sale until the check clears.”

Ineffective cost control. Know all aspects of your operation, including how to control cost. The business must be simplified to its basic elements to maintain costs at a level that allows a margin of profit.

Excessive risk. Investigate all areas of risk and find solutions to various identified forms of risk.

Market volatility. Carefully consider market fluctuations when deciding to actively engage in the business of direct marketing. A rule of thumb used to be to aim for a differential of approximately \$1.00/pound above the posted ex-vessel value of the product after direct-marketing-related expenses. Anything less represented a marginal undertaking because of the extra costs and risks associated with direct marketing. As overall costs rise and your financial needs increase, this target margin also should increase.

Operating Tips

Prepare to change the way you fish. You probably will have to sacrifice volume to meet the needs of your customers. You may have to shift the species you target, or change your timing for catching them to optimize quality and meet buyer demands. Your objective is not to fill your boat, it’s to fill your customers’ needs.

Expect to become more self-sufficient. If you stop delivering to a packer, you may lose access to fuel and groceries, ice, use of a port engineer, dock space, boat storage, and a range of other services that companies provide their fishermen.

Separate the fishing and marketing functions. Many direct marketers say it is exceedingly difficult to run a catching operation and a sales operation at the same time. Many rely on a spouse, partner or employee to do the marketing, or they use a broker or sales agent. Some have formed small marketing cooperatives to ensure enough volume to support hiring a marketing person. However, few small-scale marketing co-ops have been successful.

Take good care of your catch at every step of the process. Quality cannot be overemphasized. No one can improve your fish, so it’s up to you to sustain the quality it had when it came out of the water for as long as possible. Bled and chilled is virtually assumed.

Establish communication. One of the main reasons buyers are reluctant to deal with fishermen is that it is hard to keep track of them and the product and to communicate concerns. Buyers are more likely to be responsive if you can demonstrate that you will be in regular communication with them, and that they can reach you if need be. Providing cell or satellite phone numbers is a help, as well as fax and e-mail. Some buyers will want to talk to you daily while you are fishing, so if yours is expecting to hear from you, be sure to call or be available to take their call, or they’ll soon lose faith in you.

Respond quickly to customer schedules and specifications. “If you are going to keep ‘em, you will need to please ‘em.”

Maintain proper attitude. Some direct marketers have not done well because of business and personal problems.

Learn to be civil, no matter what kind of day you are having. Project a positive, optimistic image to your customers, regardless of what is currently happening.

Be consistent in terms of product quality, delivery timing and price.

Use various means of promotion. Prospective marketers pursuing aggressive markets will need to invest in expanded promotional efforts. The use of expanded advertising and product listings may be necessary to reach business goals.

Keep it simple. Your time is not unlimited. Project complexity increases the probability of many types of risk and makes business capital more difficult to acquire.

Things to Keep in Mind about Direct Marketing

Buyers get frustrated working with fishermen. The main reason, they say, is that fishermen too often do not understand the seafood business. Study the wholesalers, retailers and foodservice businesses to understand their needs.

Buyers purchase seafood from multiple sources. If you’re selling to a retailer or foodservice business, they probably are buying from processors, distributors and other fishermen, in order to satisfy all their needs. They may buy most of their fish from a volume distributor to minimize risk and keep the price down. There may still be a place for your offering in their selection, but they probably will be in touch with bigger suppliers and will know prevailing market prices and standards.

You have to do everything yourself. The tasks and risks that someone else previously assumed are now yours alone. Many of

Buyers are more likely to be responsive if you can demonstrate that you will be in regular communication with them, and that they can reach you if need be.

them are very different from fishing and take a great deal of time and energy to address.

You can't be in two places at once. So, unless you're selling right off the boat, you probably will have to hire or contract someone to meet the plane or truck at the other end and deliver your product to the storage facility or buyer. In some cases, buyers pick up the product; however, you must specifically arrange that. Buyers ask that air bills identifying the content, weight and arrival time be faxed ahead of time. Some cold storages will deliver the product locally. Regardless, nobody (other than relatives, possibly) does anything for free. You will need to get the *tariff* (rate) sheets for the companies whose services you plan to use, calculate all the costs involved and contract for their services well in advance.

You have to get rid of it all. You have to sell all of your catch, including any inferior species, any #2s and #3s, as well as any quantity in excess of what your buyers want. In most cases, it is illegal to discard commercially caught fish, even if you can't find a buyer. You may have to sell the excess or less desirable parts of your catch at a price below what it costs to box and ship them.

Develop backup market options. What will you do if a buyer refuses a shipment, cancels an order, reneges on a price agreement or you simply find that you've caught more than you anticipated? You want backup markets that are no more than a phone call away. Relationships with brokers and traders come in handy at times like these. The only backup plan that many people use is to put the catch in a freezer and hope they can unload it later.

Middlemen and end-users normally do not buy roe. Part of the value of your salmon is in the roe, which you may find difficult to sell, or may have to market separately. See Appendix E for tips on selling salmon roe.

There will be no retros. Salmon fishermen often get a 10- to 30-percent "bump" after the season but, when you direct market, what you get is what you get.

If you succeed, expect to attract competitors. Nothing is static in the business and an exclusive arrangement with a buyer can quickly become uncertain or vanish altogether if another supplier comes along with similar quality and a lower price. Develop a strategy for dealing with competition bent on taking your market share.

Writing A Business Plan

Your business plan is a blueprint that provides an outline of your objectives, the steps in meeting those objectives and the necessary financial requirements for both a startup as well as an existing business. It explains where your operation is, where it is going and how it will get there.

A business plan will be most useful if you update it as

changes occur. These changes may be internal or external factors that may have either negative or positive effects on the company. The plan should be reviewed annually to ensure you and your plan are still moving in the same direction and to incorporate any changes that may have occurred.

Nothing is static for long in the business and an exclusive arrangement with a buyer can quickly become uncertain or vanish altogether if another supplier comes along with similar quality and a lower price.

The person best qualified to answer the questions raised in the business planning process is you. You have the information and details as to where the business currently is and where it will go in the short and long term.

There are many different business plan outlines that exist and no two plans are identical; however, there is standard information that is seen in most business plans. The idea in writing a plan is to provide as much information and detail as possible, so the reader is able to gain as much knowledge about your operation as possible.

Appendix O of this document contains a generic business plan outline that is adaptable to your operation.

Many federal, state and private resources are available to business owners for developing a business plan. Consultants with experience and knowledge can assist with business plan development, and experts in many different industries can provide technical advice.

Why Write a Business Plan?

There are three main reasons why you should have a business plan.

- A business plan provides you an operating tool for managing the business and working towards your goals and objectives.
- A business plan is a great resource for communicating the business ideas to potential financial institutions and/or investors for possible funding.
- Writing a business plan forces you to look at every aspect of the business in an objective, critical manner. In other words, it forces you to think about all the details of where the operation is and how it will move towards its goals.

Accounting for Your Fish Business

7

H. Charles Sparks

University of Alaska, Fairbanks

Many small business owners view accounting as a nuisance instead of a resource that enables them to run their businesses more effectively. An accounting system performs two essential functions:

It provides invaluable information on a business' performance, hence the nickname, "the language of business." Timely feedback is crucial for identifying and correcting problems and inefficiencies that may arise.

Accounting also assists in meeting the numerous federal, state and local tax reporting requirements. Whether it concerns taxes on a business' profits, payroll taxes, or sales taxes collected on receipts, accounting is key to meeting these obligations.

Of course, these benefits are contingent on the system being set up correctly and kept current.

Basic Accounting Reports

Let's review the three primary statements and their roles.

The income statement, or profit & loss statement, provides information about sales and expenses of a business. You can think of it as a scorecard for the business, wherein sales are compared to their related expenses or product costs and other operating expenses incurred are presented. Sales information should be identified by source (such as major products and services) and matched with related product costs. This difference — gross profit or margin — is a very important number.

Margins represent the profit available to cover other operating costs and, hopefully business profit. Other operating costs not directly associated with products include advertising, insurance, depreciation on equipment and buildings, and interest paid.

The income statement covers a discrete period of time, usually a month, quarter or year. This is somewhat arbitrary, because the operating cycle — the time it takes to buy raw materials, make products, then sell these products — varies from business to business. However, by using reasonable estimates you can produce reliable accounting reports. In summary, the income statement provides information on the direction or profits of a business and the source or sources of these profits.

The balance sheet, or statement of financial position, has a different role. It presents a longer term financial picture of a business. It provides a listing of a business' assets, its liabilities or amounts owed to outsiders and its owners' net worth at a point in time, usually month-end or year-end. Assets are simply resources controlled by the business that provide current or future benefits in terms of cash flow. Liabilities, or obligations of the business, represent unpaid bills and borrowings. These usually consist of short-term trade credit or amounts owed to suppliers, as well as long-term financing arrangements — for example, a mortgage or line of credit.

Owners' equity, or net worth, represents the owners' residual claim to the business, above and beyond the amounts owed. This amount usually represents the owners' initial investment plus the undistributed profits of the business. The balance sheet is a snapshot of a business' financial picture, or health, at a given point in time.

The cash flow statement is a report on the cash flows of a business segregated into three categories: operations, investing and financing. This statement provides useful information about where a business gets money and where it spends it. Like the income statement, it reports on activities over a period of time. For example if the business borrowed money to buy new equipment, both of these transactions would be shown on the cash flow statement — the former as a source, the latter as a use.

The statements work together as a package, with each contributing something the others can't. Only by examining each and integrating the information can the reader understand the how and why.

Underlying these reports is a key assumption that the activities of the business can be separated from those of the owners. In other words, the financial statements represent the activities, resources and obligations of just the business. This can be a challenge in small operations, where the owners' funds are sometimes commingled, or mixed, with those of the business. Great pains must be taken to separate the activities of the business, because mixing them can blur the picture of the business presented in financial statements.

Manual versus Computerized Accounting Systems

Only the smallest businesses are better off using a manual accounting system. There are a number of excellent, inexpensive accounting programs. They can provide substantial benefits for nearly all businesses.

Quicken, QuickBooks and Peachtree are examples of accounting packages specifically for small business needs. They are designed for business people and, thus, do not require specialized accounting training. They are all similar programs, so your choice should be based on availability and local support. Sooner or later, everyone has a problem or question and if you know someone who is using one of these programs, it is likely that they can help you. That said, QuickBooks is probably the best-supported and most widely used accounting program in the world.

Most instruction manuals and third-party guides for these programs recommend you round up the following basic information before you start installing the program on your computer:

- Copy of recent business tax return, if available
- Federal tax identification number
- Owner names and addresses
- Banking information, including account numbers and balances
- Information on major customers and suppliers.

For many folks, the first big barrier to setting up their system is establishing a starting point. To get the most benefit from your new accounting system it is best to start recording transactions at the beginning of the year, even if that date was 11 months ago. This means that you'll have to input sales and payments going back to the beginning of the year. But it will be worth it, because you'll be able to use all of your program's capabilities and reports.

All the programs use a "setup wizard" to prompt you for information about your company. This routine can take from one to four hours or more, depending on how extensive you want to set everything up initially. It will ask you questions about your company's products and whether you make things, perform services or do both. The purpose of this questioning is to assist the program in setting up a chart of accounts for you.

The chart of accounts is the key part of collecting and categorizing transactions, enabling you to produce useful reports. You can make changes to it later but it is much faster and easier if you can do it right the first time. The initial chart of accounts should include accounts for each of your products, both sales and their costs accounts

Adding or Changing Accounts

No matter how carefully and completely you answered the set-up wizard's questions, you will need to create additional accounts. To do this, check your program's specific instructions on how to do add new accounts.

Consider using sub-accounts. They will allow you to produce reports, using either the summary for a group of accounts or for individual accounts. For example, if you sell several varieties of smoked fish, you can create a smoked fish sales account and then create sub-accounts for each type of smoked fish you sell. Sales of each product will be kept separately in individual accounts, so that you can generate reports for each product line and, thus, analyze the success of your efforts to market and manage each.

At some point during set-up, the program will ask you for information on your accounts receivable and payables, or money owed to and by your business. Skip entering any existing balances for your customers or suppliers. Most small businesses are on a cash basis, which means it doesn't count as income or expense for tax purposes until the money changes hands. It is easier to skip entering balances as of the start of the year or whenever you are setting up your accounting program. Instead, record the amounts owed or due when you actually receive or pay money, then record the appropriate income or expense.

Using your Accounting System

Your accounting program's user interface should be very intuitive and organized around common business activities such as banking, customers, suppliers/vendors and reports. This makes it easy to perform tasks such as making deposits, invoicing customers, paying bills and generating reports.

For example, to pay a supplier's bill, all you have to do is open the banking menu and then click on "write checks." The program will prompt you for the necessary information and then post the necessary debts and credits to your accounts.

Since each accounting program is a little different from the others, it is difficult to go into all the details for these features here. Invest in a good third party user manual for your accounting program. Many of these are better written and easier to follow than the user documentation provided with the software program.

Payroll Tasks

Payroll reporting requirements are very demanding. Late reports and tax deposits carry stiff penalties, so they are best avoided at any cost. It is essential that payroll expenses are computed and recorded accurately and that all necessary reports are assembled and transmitted on time. Accounting software can

help. Also, many small businesses outsource these tasks to their accountants.

QuickBooks offers a unique sliding scale of assistance for users of its program. At one end of the scale, the business can provide a listing of employees and their hours and the software computes payroll costs, sends electronic checks for printing, maintains payroll information, makes the payroll deposits and files the required reports with both federal and state agencies. At the other end of the scale, a business submits the employee time and the program sends back electronically the amounts for checks and payroll deposits. You complete the process by writing checks and filing deposits. QuickBooks will provide detailed reports for you or your accountant to file with the required payroll tax reports or, for additional fees, will file these reports and make the required deposits right from your bank account.

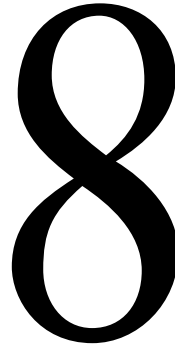
Backing Up

It is vitally important to protect your accounting system and its data files from misuse and loss. This requires some careful planning and adherence to a back-up schedule. Limit system access to only those people who have a need for it. QuickBooks and comparable programs support limiting user access to only certain tasks. Set up and use this feature to prevent unauthorized changes and transactions. The frequency of your back-up schedule depends on how often you update your system. Implement a weekly back-up schedule, usually on Fridays, where a complete copy of your files is written to a portable memory device, such as a jump drive. This device should be taken off-site until needed for making a new back-up.



Considering Quality

Stephen T. Grabacki
Graystar Pacific Seafoods



To understand the quality aspects of your product, it helps to understand who buys your seafood. There are two basic types of customers who buy seafood:

- Trade customers, who intend to re-sell the seafood. These include secondary ("value-added") processors, wholesale distributors, retailers (supermarkets, food shops) and foodservice establishments (restaurants, institutions)
- Ultimate consumers, who actually consume the seafood. They buy the seafood in retail stores or they eat it in foodservice establishments

Of the two, the trade customers are more able and willing to articulate their preferences to you. The ultimate consumers simply "vote with their wallets" by choosing one kind of seafood or its competitors. How the customers and consumers select their food directly affects your ability to sell your products.

Alaska and Pacific Northwest seafood competes with products from other sources, including Chile, Norway and Scotland, that have set high standards for quality and the ability to meet customer expectations. All seafood competes with other protein foods, such as beef, pork, chicken and turkey. In most markets, these non-seafood meats out-compete all seafood on the bases of familiarity, price, predictability of supply *and* reliability of quality.

Customer Expectations

Seafood must meet several basic customer and consumer expectations, which include, but are not limited to:

- **Purity** — Consumers prefer seafood from pristine natural environments, free of pollutants. Although some consumers prefer wild-caught salmon for that reason, not all customers are so discriminating.
- **Safety** — Consumers must be protected from harmful foods, especially contamination from physical, chemical or biological sources. The safety of your seafood is ensured by your adherence to the principles of Hazard Analysis and Critical Control Point (HACCP) and good sanitation practices.

- **Quality** — There are two ways to view seafood quality. One concerns the positive *intrinsic* characteristics of the seafood — taste, texture, color and appearance — that are biologically determined. The other concerns the *extrinsic* characteristics of seafood quality, which may be damaged by our industry's practices: bruising, blood spotting, gaping, softness and general degradation. Obviously, consumers expect all of the positive intrinsic attributes and they dislike any negative extrinsic characteristics. In other words, we cannot improve the quality of our products but can only *retard the loss of quality* until the seafood reaches the ultimate consumers.

Fish deserves the same respect as the other foods that you serve to your own family. The old maxim is more important than ever: "Keep it clean, keep it cold, keep it moving, handle it gently."

How Quality is Lost

Seafood is delicate and easily degraded. Fish have a soft muscle structure, which is easily damaged. Fish flesh contains catabolic enzymes, which start breaking down the meat as soon as the fish dies and are an ideal medium for bacterial growth. Any sort of poor handling, warm temperatures or slow transit decreases the value of the seafood by diminishing its appearance, taste, odor, texture and shelf life.

Shelf life is a measure of how long a fish can remain of good quality from the time it is captured to the time it is eaten. The longer the shelf life (as viewed by the customer), the higher the value. Any delays or deterioration on the production end (catching, holding, processing, storing, shipping or receiving) decrease the shelf life and the value of your product.

In theory, the shelf life of non-frozen high-fat fish (salmon,

All seafood competes with other protein foods, such as beef, pork, chicken and turkey. In most markets, these non-seafood meats out-compete all seafood on the bases of familiarity, price, predictability of supply and reliability of quality.

herring, sablefish) can be as long as 10 days, starting at the moment that the fish dies; the shelf life of non-frozen low-fat fish (halibut, cod, pollock, rockfish) can be as long as 14 days. However, these are theoretical maximums, which assume immediate, unchanging chilling (32° F), and absolutely perfect handling. The actual shelf life of your products will likely be less, which is why you must do everything you can to avoid shortening this time period.

Quality begins to deteriorate even before a fish is landed. A salmon trapped in a gill net is already getting squeezed and abraded by the mesh. Further damage can occur as the fish is brought aboard the boat, removed from the gear, and stored in the hold. Common mistakes include lifting or pulling the fish by the tail and dropping or squeezing the fish, which result in the formation of bruises and blood spots in the meat. Studies by Alaska Sea Grant Marine Advisory Program (MAP) have shown that these bruises can occur in dead fish as well as live ones. Rough handling very often results in internal defects that are not visible until the seafood reaches the customer.

Bacteria are present everywhere, including on and in the fish. As soon as the fish dies, the bacteria go to work, digesting the flesh and producing chemicals that destroy the texture and create odors. The higher the temperature, the faster the bacteria multiply, and the faster the fish spoils.

Fish have enzymes in their guts and their muscles. When a fish dies, the catabolic enzymes are free to degrade the flesh, from the inside out (a condition known as "belly burn"). Like bacterial action, enzyme activity increases in direct proportion to temperature.

When a dead fish is exposed to air, it undergoes dehydration and oxidation. Dehydration — the loss of moisture — results in toughening and discoloring of the meat. Oxidation is caused by the chemical reaction of fish oils with oxygen. It results in unpleasant odors and flavors. Both dehydration and oxidation are easily prevented through good temperature control, proper packaging, rapid transit of non-frozen fish and correct glazing of frozen fish.

Practices, Grades and Specifications

The best source of basic information on seafood quality is *John Doyle's Care and Handling of Salmon: The Key to Quality*, available from Alaska Sea Grant MAP offices and from the Alaska Seafood Marketing Institute (ASMI). It presents more details on the causes of quality problems, and offers excellent recommendations on practices for chilling, on-board handling, cleaning, and sanitation. Other manuals (listed at the end of this

Remember That...

The four-part mantra, "Keep it clean, keep it cold, keep it moving, handle it gently," applies to all three links of the seafood chain:

- Pre-process — Handle the fish gently on the boat and on the way to processing. Chill it well and promptly. Prevent contamination of any kind.
- In-process — Process promptly. Hold the unprocessed fish and the processed products at 32° F. Keep holding times to a minimum.
- Post-process — Package the products properly, with careful attention to insulation and chilling. Use plenty of gel-ice packs. Ship the products as soon as possible. Monitor the shipments until they reach the customers.

Your job as a seafood provider does not end until the seafood products arrive at the customer's location and the customer accepts the shipment.

chapter) cover handling of halibut, rockfish and ocean whitefish. ASMI and MAP have produced several other useful publications on practices of handling, chilling, packaging, shipping, butchering and filleting of salmon, halibut, and other species. See the list at the end of this chapter.

You can inform your customers about your quality practices in order to assure them that you are doing your best to produce and deliver top-quality seafood products.

Grades

The seafood industry uses a system of grades to indicate the quality of the product. These grades are based on extrinsic factors and indicate freshness and handling.

ASMI's Seafood Technical Program offers an excellent matrix of quality grades for salmon, including Premium, A, B and C. These grades reflect the important characteristics of quality:

- Handling — bled vs. unbled; chilling; amount of defects, including skin cuts, bruising and scale loss
- Odor — ranging from "fresh" to "slight, not offensive"
- Eyes — ranging from "bright, clear" to "milky or cloudy"
- Gills — ranging from "bright red" to "pink to buff"
- Skin — clarity of slime; net marks; scars; damage to fins and tail
- Belly Cavity — internal color; degree of belly burn; thoroughness of cleaning

ASMI's Seafood Technical Program has produced several other useful tools for grading your products:

- Skin Color Guides for sockeye, coho, chum and pink salmon
- Meat Color Guides for sockeye, coho, chum and pink salmon
- Premium Quality Specifications for king crab, snow crab, Dungeness crab and frozen whitefish fillets

ASMI can provide its documents, procedures and grades free-of-charge. See the ASMI salmon quality specifications in the appendices of this manual for examples.

Specifications

Specifications are slightly different from grades. Grades are standard measurements that can be applied to all products and accepted by all customers, while specifications are tailored to the individual preferences of each specific customer. Specifications might include:

- Product — headed and gutted, fillets, fletches, steaks, loins etc.
- Size — of whole fish or of portions
- Skin — on or off
- Bones — in or out
- Trim — for example, collar on or off, belly flaps on or off, fillet trim style
- Packing — net weight per box or carton, plastic sleeves, glazing, etc.
- Quantity — number of fish or portions, or amount of pounds
- Shipping — all the way to the customer, not just to the nearest airport
- Time — arrival of the shipment on the day the customer desires

ASMI's *Seafood Buyer's Guide* is an excellent source of basic information on seafood product specifications. It is important to remember that each of your customers will likely have their own preferred specifications, so you must take special care to understand and deliver what each customer expects.

Writing specifications is easy. Keep them simple, clear and easy to read. Make them known to each person in the distribution chain, from you and your crew to the customers and their staffs. Each customer will expect to receive seafood that

Grades are standard measurements that can be applied to all products and accepted by all customers, while specifications are tailored to the individual preferences of each specific customer.

conforms to their specified species, grade, skin color, meat color and product specifications.

Grades and specifications are critical to the success of your direct marketing business. They are the basis for the sale (and purchase) of your products, and, by minimizing mistakes and misunderstandings, they allow clear communication between sellers and buyers. Without grades and clearly understood and mutually accepted specifications, you risk the loss of future sales through customer uncertainty.

Customer Assurance

The marketplace values and rewards reliable, consistent quality. There are several ways in which you can assure your customers of the consistent quality of your products:

- **Handling Practices** — Let your customers know about the quality handling practices that you follow, on the boat, during processing and during shipment.
- **Product Grades** — Be sure that your products are of the grade that your customer expects. Inform your customers about the grading system you use.
- **Product Specifications** — Clearly understand and consistently deliver products that meet the customers specifications.
- **Third-Party Verification** — Some customers prefer that their seafood is produced in inspected facilities, and/or that the products meet their grades and specifications before shipment. This type of service is available through the National Marine Fisheries Service, the Alaska Manufacturers' Association and private-sector seafood inspectors.

Seafood will continue to be valued for its intrinsic qualities: taste, appearance, nutrition, and purity. As you produce and market your products, please keep in mind that your competitors have gained market share by delivering products of consistently high quality. Quality has never been more important.

For further information on seafood quality practices, grades, and specifications, please contact:

Seafood Technical Program
Alaska Seafood Marketing Institute
311 North Franklin Street, Suite 200
Juneau, Alaska 99801
907-465-5560
Web site: www.AlaskaSeafood.org

Alaska Sea Grant Marine Advisory Program
University of Alaska
1007 West 3rd Ave., Suite 100
Anchorage, AK 99501
907-274-9691
Web site: www.uaf.edu/MAP

Alaska Quality Seafood Program
700 West 41st Ave., Suite 205
Anchorage AK 99503
Phone: 907-565-5655
Web site: www.alaskaqualityseafood.com

The following publications for handling North Pacific fish are available through local Alaska Sea Grant MAP offices:

Care and Handling of Salmon: The Key to Quality by John Doyle
Marine Advisory Bulletin No. 45, June 1995

Handbook on White Fish Handling Aboard Fishing Vessels by John Doyle and Charles Jensen
Marine Advisory Bulletin No. 36 June 1988

Quality Handling of Hook-Caught Rockfish by Brian Paust and John Svensson
Marine Advisory Bulletin 20 February, 1986

Care of Halibut Aboard the Fishing Vessel by Donald E. Kramer and Brian C. Paust
Marine Advisory Bulletin No. 18 May 1985

Working with a Custom Processor

Torie Baker

Alaska Sea Grant Marine Advisory Program



Some direct marketers find it desirable to work with custom processors. This might be because they lack processing equipment on their boats, they need to handle bigger quantities of product, they want to offer their customers different product forms or they don't want the responsibility of conducting their own processing operation.

A custom processor can provide various value-added services such as smoking, freezing, portioning, or making jerky and other product forms. Many custom seafood processors primarily process fish catches for sport anglers. In some locations, custom processing arrangements can be made with traditional large commercial processors.

Whether you are only making a few fresh fish shipments in a season or stockpiling frozen, canned or value-added product for after-season sales, your relationship with a custom processor could be one of the most important components of your business. This relationship should be open, upfront and organized to minimize misunderstandings and maximize efficiencies for both of you.

Most custom processors interviewed for this chapter agree that receiving high-quality, well-cared-for raw material and understanding the associated costs are the two most important elements of a good business arrangement with direct marketers.

Working Out the Costs:

It is advisable to write an agreement or contract between yourself and your custom processor outlining the services to be provided (e.g., headed and gutted or frozen). This can be as simple or complex as you and your processor desire. Written contracts are not always necessary, but if you're seriously engaged in moving large amounts of even the simplest product forms, a written agreement, like a written business plan, will clarify expectations, anticipate problem areas and keep things flowing smoothly.

A custom processor can help you identify all your operational costs so you can develop appropriate selling prices that will allow you to make a profit. Take your time to understand arrangements; you may have several conversations with your processor before a full agreement is reached.

A custom processor can help you identify all your operational costs so you can develop appropriate selling prices that will allow you to make a profit. Take your time to understand arrangements; you may have several conversations with your processor before a full agreement is reached. Here are some points to keep in mind during your discussions:

- *How will my fish be handled over the dock or on a tender and how am I assured I will get my fish?* Traceability may be very important to you. Understand how your processor is tracking your fish from delivery through processing and final staging for shipping.
- *Are there dock delivery fees?* In most places, bringing commercial seafood over a public or private dock requires someone to pay a landing tax or fee. Your processor will most likely pass this fee on to you.

- *Does the custom processor have the capacity to process my fish?* This is a fundamental question. Some processors are set up to provide exclusive areas in their plant and crews for custom processing that are separated from other processing activities; others may rely on marked totes to differentiate fish ownership, and your fish will be processed as a batch, along with other fish. There are many ways to organize product flow and it is important for you to become familiar with your processor's system.
- *What product forms do you require?* You've probably come to the processor with a product. Some direct marketers find it desirable to work with custom processors. This might be because they lack processing equipment on their boats, they need to handle bigger quantities of product, they want to offer their customers different product forms or they don't want the responsibility of conducting their own processing operation.
- *Who will pay applicable taxes?* A variety of state and local taxes are assessed, depending on how you are licensed in your particular state and what form of arrangement you have with your processor. For example, if you technically sold your own fish to a processor and are now purchasing the fish back in a custom processed form, the processor may be the one paying taxes, and he will include those charges in your final bill. Check with your state revenue or tax department for details.
- *Who will provide packaging and labeling?* Some processors will use your packaging; others want to ship product in their own boxes. If you're using your own materials, ask how and when the processor wants those materials delivered to the plant. Sometimes, processors can store your materials but, often, that is not the case. Also, processors can work with you on your labeling requirements and can connect you with packaging companies.

Remember, if you're using any of the chain-of-custody certifications, such as the Marine Stewardship Council label, it's up to you and not your custom processor to ascertain compliance specifications, tracking numbers, etc. and to understand how to include that information into your labeling and packaging.

- *Have you arranged for pick up and transport to the next stop once the product is ready?* This is a very important. Most processors are just processors; they aren't warehouses or cold-storage facilities. Some, like Home Port Seafoods in Bellingham, Washington, are located near such facilities and can assist you with information on local shipping and warehousing vendors. Wherever your product is going,

make sure you understand how long you have to move the product out of the processor's facility and how best for your transporter to work with the processor.

- *What is the processor's billing cycle? What form of payment do they accept?* Some processors require payment before they will release the product and others will bill you. In most cases, you'll be required to set up an account with the processor and provide full billing information.
- *Is the custom processor required to put their name on the product or shipping label?* In Alaska, the last certified handler of a seafood product before it is released for commercial or retail sale is required to place their processor code on the shipping box or product label. This insures traceability and is a requirement that varies in other states. Discuss this point with your processor and state permitting agency before ordering packaging or labels.

Don't overlook your traditional processor as a potential partner in your direct marketing venture. Even if they aren't set up to custom-process, in more remote locations, they may help you order supplies or equipment and share shipping costs.

You're Not the Only Fish on the Cutting Table

Realize that, in most cases, your fish won't be the only concern of a custom processor. He or she will have other customers with needs similar to yours. In the case of traditional processors who are taking on occasional custom work, what seems like a doable proposition of handling your fish can quickly turn into a nightmare if the plant unexpectedly gets overwhelmed with their own purchased fish. In this instance, it's almost guaranteed that your fish will take second priority. Be prepared. Check in with your processor prior to your trip. Confirm how much poundage you estimate you'll be bringing in and when you'll be bringing it. Talk over what the processor's workload might be looking like. The processor, too, will be watching weather conditions, run timings and other factors and trying to gauge the plant's workload.

Other Considerations for Value-Added Products

Many custom processors do very basic product handling — heading and gutting, skinning, removing pinbones, trimming, freezing, vacuum-sealing, canning, etc. Most smoke and roe product services are also readily available. If you are interested in developing more complex value-added items (for example, pickled or chowder products), more questions must be addressed. Remember, re-producing large quantities of

Aunt Bee's pickled fish recipe may require modifications to the original recipe's proportions to assure you're getting the taste you desire.

In some cases, you may need to involve the services of professional food chemists to analyze your product's characteristics for batch production, shelf stability, packaging requirements, etc. These more involved products will also require different permits, ingredient disclosures and packaging and will take a longer time to develop.

Lastly, don't overlook your traditional processor as a potential partner in your direct marketing venture. Even if they aren't set up to custom process, in more remote locations, they may help you order supplies or equipment and share shipping costs.

Some processors are not interested in supporting someone who could be seen as a direct competitor, but more often traditional processors simply aren't interested in losing the fish production they would otherwise get from you as a traditional fisherman.

Many large processors are encouraging direct marketers. Often, markets you are selling into are not the same as retail customers that buy directly from larger processors, seafood distributors and brokers. Some large processors feel that the more high-quality wild seafood from any source is available to the marketplace, the better everyone in the wild seafood business will be.



Packaging and Shipping of Seafood Products

Cynthia Wallesz

Lofoten Fish Company and Alaska Sea Grant Marine Advisory Program

10

Proper shipping and handling can determine success or failure for direct marketers. Shipping is risky business and the place where you typically have the least amount of control. Careful planning of every step in the process, including risk assessments of each phase, will help shipments go smoothly and successfully. Strict adherence to proper shipping strategies and good working relationships with the shipper, carrier, freight-forwarder and customer are essential to ensure the delivery of a high-quality product and continued marketing success.

Means of getting your product to market could include travel by plane, truck and/or barge. Each method has its own unique challenges and considerations. Packaging and shipping methods may vary, depending on what type of product you have:

- Fresh Premium (high quality products such as sockeye salmon and halibut; small quantities; probably the most common product type for direct marketers)
- Frozen Premium (growing in popularity with direct marketers)
- Fresh Utility Grade (usually commodity-type species such as pink and chum salmon; larger quantities; may not be of premium quality)
- Live Products (see the discussion on live-product packaging and shipping, in Chapter 11).

Packaging for Shipping

What you will need to get started:

- Appropriate boxes to fit the items to be shipped
- Plastic liners
- Insulated foil liners
- Gel packs and/or dry ice
- Scale, certified by your state
- Box stapler
- Packing tape
- Rubber bands or staples
- Permanent marker or computer labels
- Strapping system
- Truck or other transportation to deliver your shipment to the freight carrier

Proper packaging is necessary to maintain fish quality, as it protects the fish from physical damage and temperature stress during transport. Containers must not leak, as fluids can damage transport vehicles and aircraft and greatly upset important personnel. There are many different types of cartons available for shipping; these can be divided into containers for fresh or frozen shipments.

As a general rule, use the proper-sized box to fit the fish, as opposed to cramming the product into an undersized box. Use boxes you can physically manage. Always handle your product and packaging materials with care and keep everything clean throughout the process to ensure a high-quality end-product. Check with your carriers, as they probably have box size and box weight specifications. For larger shipments, contact your carrier to use pallets, totes or other suitable containers.

Containers and Packaging for Fresh Seafood

The Container: Fresh seafood is commonly shipped in **wax-impregnated wetlock boxes**. These are typically brown but heat-reflected colors (such as white) are also available. The wax imparts strength and repels water but it also makes the box brittle, so the box can easily rupture if dropped.

Check the box bottoms for a testing seal describing box burst strength of at least 250 pounds. Wetlock fish boxes are available in various capacities: 10-pound, 25-pound, 50-pound, 80-pound and 100-pound. Most air carriers require that wetlock boxes have gusseted corners. The box should have at least three staples per corner to maximize box strength. Do not use strapping tape in place of staples.

Other Packaging Materials: Once you have your wetlock box stapled, the inside of the box should be lined with a **plastic poly liner** or **foil-insulated liner**. Plastic liners protect against leaks and come in thicknesses from 1.25 to 4.0 mil.

Foil-insulated liners help maintain temperature and are very useful when shipping to warm climates or places where you

Proper packaging is necessary to maintain fish quality, as it protects the fish from physical damage and temperature stress during transport.

think there might be shipping delays. The foil material reflects radiant outside heat and the inner bubble layer is an effective air barrier that is beneficial for insulation. The inner, white polyethylene liner part is FDA-approved for food use. Foil liners are an effective, inexpensive insurance and are available in five sizes, most of which are designed to fit into wetlock boxes.

Gel packs or **dry ice** protects the product from outside heat and should be used when shipping fresh seafood. Generally, dry ice is hard to find and prohibited in boxes shipped by air; check with your carrier for specific requirements.

Gel packs are commonly available and very effective. Use gel packs that are food-safe in case the packs leak during shipment. Most direct marketers will find the 1.5-pound packs most useful, although packs are available in many weights and sizes. Keep in mind that gel ice is intended to slow the inflow of heat into the box's interior space, containing the pre-chilled product — it will not lower the temperature of the contents. Packs must be thoroughly frozen prior to use.

Containers and Packaging for Frozen Seafood

Insulated boxes normally are used for shipping frozen seafood, because they help keep product temperature consistent. One of these containers includes an insulated box with an insulated lid and a cardboard overwrap. The containers are available in many shapes and sizes.

If you expect delays in your shipment or are shipping to a warm climate, consider adding a foil-insulated liner (described above) to the inside of your insulated box. These liners are designed to fit wetlock boxes but can be used for insulated boxes as well. The use of gel packs (or dry ice, if you can get it and it's approved for use by your carrier) is good insurance that your product will arrive at its destination in the expected frozen state. Gel packs are especially recommended for smaller shipments, for locations where there may be shipping delays (such as remote areas) and for shipments to warm climates

Loading the Boxes

Whether shipping fresh or frozen product, it is important to maintain proper temperatures throughout the packaging process, in order to protect product quality. Keep the product and any packed boxes in the cooler or freezer until the last possible moment before transport. Pack your fish or product carefully, as the visual quality of the received container is very important to most customers. When your customer opens their boxes, you want them to be pleased and impressed. Be sure to ask your clients about any product shipping specifications they may have.

- If shipping fresh, chill the product to approximately 32°F before boxing. Pre-chilling can be accomplished using slush ice, properly applied flaked ice, chilled sea water (CSW), refrigerated van or cold storage. Advantages and disadvantages of these methods are discussed in Appendix

F. If shipping frozen product, freeze the product thoroughly in a blast freezer before packaging or retrieve your frozen seafood directly from your freezer or cold storage facility.

- Pick the size and type of box that is appropriate for its contents. On the outer part of the box, write or use a computer label that contains the shipper's full address with phone number, the receiver's full address with phone number, the seafood species inside, box number and whether the product is fresh or frozen.
- Put the desired liner (plastic, foil or both) into the box.
- Put a box on the certified scale and carefully place each fish or product into the box. Make use of all the space you can; the more product density, the better insulated your product will stay throughout the shipping process. Fill your container with product or add as much weight as you have planned with your customer. Add gel packs, dry ice or other coolants; you may want to scatter them throughout your container. Note net product weight for billing and record-keeping purposes.
- If using a plastic liner, tightly close the liner with a stapler or rubber band. Secure foil liners with packaging tape. If there is room inside the box, add any additional insulation, such as newspaper, so your product doesn't slide around when handled.
- Close the container (if cardboard, tape closed); strap all boxes with banding material in at least two places, depending upon the size of your container.

Take your loaded containers and boxes directly to your freight company or place the packed boxes into a cooler or freezer until shipping time. Monitor your shipment at every step of the way, until it arrives safely in the hands of your customer. It is not uncommon to have to call a freight company mid-shipment to verify the boxes' handling and/or destination. Follow up with your customer to make sure your product arrived as expected.

Table 1.

Effects of temperature on shelf life (days)

Storage Temp (Degrees F)	High-Fat Fish*	Low-Fat Fish**
32	10	14
40	5	7
50	2.5	3.5
60	1.5	2
70	1.2	1.7

* High-fat fish includes salmon and sablefish

** Low-fat fish includes halibut, cod and pollock

Shipping Considerations

Ask the following questions when planning shipments:

- Which carriers serve the area where the product is being shipped? Which of these companies has the best reputation for handling premium seafood? Are personnel competent when it comes to the handling of sensitive shipments?
- Does an air carrier offer freight-only flights or is the product shipped on passenger jets?
- Are the schedules convenient to both shipper and receiver?
- Are direct flights available or must the product be transferred between planes or air carriers? How many transfers will be needed to get the product to its destination?
- How long are the layovers if the product must be transferred? Which carriers have cool rooms or cold storage facilities where the product can be held during layovers and at its final destination?
- What arrangements must be made to assure that the product is shipped on a particular flight? Must cargo space be reserved in advance, and how far in advance of departure must the product be delivered to the freight office? When will the product arrive at its destination?
- How is the product to be shipped? Will each discrete shipment be in individual boxes or will individual shipments be contained in a large unitized container?
- Will the product be held at the airport or shipping company yard for pickup or will it be delivered to its final destination? Who is responsible for the delivery? What local freight forwarding companies have good reputations with fresh seafood shipments?
- What information must be on the box to assure uninterrupted shipment and delivery?
- What additional regulatory documentation must be provided for the shipment?
- Does the shipment need to be insured? What are the types of insurance coverage, limits and costs? Does the carrier provide insurance for customers?
- What packaging precautions are needed to ensure product quality? Are extra gel packs needed? Should the box contain supplemental insulation? Is extra packing material needed to prevent shifting?
- When does the customer prefer the product to arrive? Are communications channels with the air carrier, customer and freight forwarders well-established, so that everyone involved knows the schedule and arrangements? Is a computerized freight tracking service available?
- Does the customer have special packaging requirements?



Live Shipping

Sunny Rice

Alaska Sea Grant Marine Advisory Program

11

Live seafood products can bring in prices that are significantly higher than traditional fresh or frozen products. You “purchase” that value, however, with the greatly increased risk, regulatory concerns and logistical difficulties that accompany live marketing. This section, adapted from the proceedings from the 1999 Marketing and Shipping Live Aquatic Products conference, raises some questions a potential live-shipper should address.

Is your species viable?

A trip to area seafood markets reveals some species commonly marketed live: lobsters, various species of crabs, geoducks, mussels, oysters and other bivalves. Specialty markets may even include finfish. If someone else is already selling your species live, you know that it is possible to land, package and ship that species in a healthy live state. Keep in mind, however, that your product must be in *extremely* good condition when it is landed on your vessel.

In some cases, live product will be killed shortly after it reaches its destination, but many markets want to continue to hold the product alive until it is sold to the final customer. Does your catch method deliver this caliber of product?

A second early question to ask is whether it is legal to land and transport your species alive. Regulations for live seafood processing and transport differ from those for fresh product.

Although there is no processing involved with live products, other sanitation concerns arise with live shellfish, such as paralytic shellfish poisoning (PSP) and amnesiac shellfish poisoning (ASP).

In addition, some states prohibit exporting certain species live (see sidebar), while others have regulations to protect them from the accidental introduction of non-indigenous or invasive species that might enter the state through importation. So it is important that, early in your planning process, you research the export laws in your home state, as well as the import laws in the state where you intend to market your fish.

How will you keep it alive?

When you switch to live marketing, you should be aware that, most likely, you will need to change the way you fish. You may need to decrease your set or soak times to ensure the product is alive and in good condition when you land it.

Shorter trips may be required. You may also need to time your trips with the weather or fish in calmer waters to keep your product from getting overly stressed during transport from the fishing grounds.

Finally, you will most likely need to fish more slowly to accommodate the increased care needed to keep the product in optimum condition. Will this decreased volume be offset by a sufficiently increased price?

Also consider the modifications you will need to make to your vessel. Will you need to reconfigure your

No matter how healthy your product is when you land it, improper packaging or shipping problems can be lethal. Specialty packaging may be required and will most likely increase your costs.

Attention Alaska Seafood Shippers

The Alaska Board of Fisheries passed a regulation that prohibits the transportation of live finfish from the state. The regulation allows for holding pens for herring and salmon prior to processing under a Commissioner’s permit. However, the held fish may not be removed from the region from which they were harvested.

For more information, contact the Alaska Department of Fish & Game Division of Commercial Fisheries, 907-465-4210.

hold? If you will be doing any packaging on board your vessel, will you need to make modifications to comply with sanitation requirements? Will modifying your fishing gear allow the product to be landed in better condition?

Packaging and shipping present some of the biggest difficulties with direct-marketing live products. No matter how healthy your product is when you land it, improper packaging or shipping problems can be lethal. Specialty packaging may be required and will most likely increase your costs.

Because shipping time is of the utmost importance, good cooperation and communication between you and your buyer is vital to successful live marketing. Because shipping times are so crucial, you may want to limit your markets in the beginning to destinations served by direct flights from your landing port. If this is not possible, you may need to find a place to recondition the product at intermediate stops. This may also increase your costs.

How does the live market differ from fresh or frozen market?

In addition to higher prices offered by the live market, there are several other differences between live and fresh or frozen markets. The best live markets may be overseas, bringing with them the additional complications of shipping internationally (see Chapter 14 for a discussion about this). Your buyer may require more frequent but smaller shipments, which will increase your total shipping costs. Finally, customers want their live products in the best condition possible, so cosmetic issues may play a larger role than with other products.

It is doubly important to have excellent communication and a cooperative and trusting relationship with your buyer when doing live sales. You need to be certain that the buyer is honestly assessing the condition of your product when it arrives and that he or she is properly equipped to deal with your product when it gets there. You'll need to agree on how to address issues pertaining to dead-loss. For these reasons, using a broker may be an attractive option when direct marketing live products.

In conclusion, realize that switching from fresh or frozen product to live will impact almost every part of your business, from your catch methods, to shipping and packaging, to the kind of relationship you have with your buyer. The amount of work, attention to detail and risk required will increase dramatically. Make certain the increased price you'll receive for your product is sufficient to cover these changes.

The amount of work, attention to detail and risk required will increase dramatically. Make certain the increased price you'll receive for your product is sufficient to cover these changes.

Live Seafood: The Next Value Added?

Some markets in the world will pay considerably more for live seafood over fresh and frozen seafood. In April 2007, the Hong Kong's Fish Marketing Organization's Web site listed the wholesale prices for live yellow-trimmed sea bream, \$4.40/lb (HK\$72/kg), while fresh sold at \$2.04/lb (HK\$35/kg). Similarly, live rabbit fish sold for \$1.98/lb (HK\$34/kg) while fresh sold for \$0.67/lb (HK\$11.55/kg).

Pacific Northwest seafood exporters have long-recognized the value of live shellfish over processed shellfish. Following changes to PSP testing protocol by the Alaska Department of Environmental Conservation in 2003, which allowed for more shipments of live geoduck to leave Alaska, the ex-vessel price per pound went from \$0.72/lb in 2002 to \$3.48/lb in 2004. With relatively no difference in harvest quantity, this increased the value of the geoduck dive fishery from \$280,000 to \$1,250,000 for harvests between 2002 and 2004.

Setting Up Your Boat for Direct Marketing

Greg Fisk

SeaFisk Consulting and Alaska Sea Grant Marine Advisory Program

12

Using your boat for direct marketing can be pretty simple. Retailing your catch at the dock may not require much change at all to your basic fishing operation.

Direct marketing from your boat can also be complex. For example, setting up to process salmon or prawns on board a “direct-market vessel” can entail considerable investment, and you’ll have to jump through a lot of regulatory hoops.

The one thing all good direct-market set-ups have in common is plenty of forethought. Legal requirements governing direct marketing and onboard process activities vary from place to place. Your first task is to contact the relevant state and local agencies where you plan to operate.

Dockside Sales

The most basic form of direct marketing is retailing your catch to the public directly from your fishing boat. Technically, you may not need to alter your boat at all. You can haul a fish out of the hold and hand it directly to your customer. But, practically speaking, there are things you should do to improve your set-up. Help make your customers’ trip to the dock to buy seafood an enjoyable experience and they will be more likely to seek you out again.

Try to moor in an easily accessible place. Long walks to the end of a float can discourage customers — particularly if they have to lug a heavy load of fish back to their car. Work with your harbormaster to establish a service-oriented experience for seafood consumers at your harbor.

Keep your boat shipshape and clean. Extra care is warranted when retailing to the public. A processor may be perfectly understanding of a lot of gear on deck, and fish coming out of bloody slush ice, but many retail customers will be put off. Fish ready for sale should look as good as those at a seafood counter.

No pets. It’s unsanitary having dogs and cats running around where you are selling food. It’s also unwise to allow rambunctious kids to play around on deck. If the kids aren’t taking part in selling product, you should confine them to the wheelhouse or the dock.

Maintain a covered area. In some places, it’s required. A cover protects product from what regulations refer to as “avian fecal contamination.” If you can set up a cover that also offers your customers standing on the dock a little shelter from the rain, that’s a big plus, too.

Keep enough change on hand. If you are hoping to sell somebody a couple of nice fat salmon for \$25 apiece — or more — be prepared to break a \$100 bill. A lot of dockside fish sales are made on weekends, when banks are closed, so think about this in advance. Having a cash box makes things easier. If you have policies like “Local Checks Only – ID Required,” it’s a good idea to post them where they can be easily seen.

Use nice signage. A scrap of cardboard with a hastily scribbled note in marker pen doesn’t speak well of your business. Make some decent signs. If you can’t print neatly or spell properly find a friend, relative or fellow fisherman who can. Include a price list. A chalkboard can look very nice and allow you to make changes as needed. For directional signs and other signage off the boat, be accurate and clear. Don’t forget to check with the harbormaster and other authorities about posting signs in public areas.

Bags or boxes. Customers need a way to get their purchases back to their car in some sort of packaging that won’t leak fish juices all over everything. Whatever you use, make sure you have enough on hand. Waxed boxes are great and people are often willing to pay for them, rather than have the carpets of their new BMW slimed.

Carry the fish to the customer’s car. This is a nice touch if you can break away to do it. Two or three big cohos in a 33-gallon plastic garbage bag can be a real load. Obviously, you have to weigh this against being away from the boat. This is the sort of service that’ll get you remembered and referred to other potential customers.

Be a good Scout – In your personal compartment and

Help make your customers’ trip to the dock to buy seafood an enjoyable experience and they will be more likely to seek you out again.

the way you do business, it helps to be “Trustworthy, Helpful, Friendly, Courteous, Clean,” as per the Boy Scout Oath. Treat customers honestly. Be prepared to answer questions. Do your best not to be surly — “sirs” and “ma’ams” don’t hurt — and don’t look or act like a slob. You’re going to get some customers who are stupid, unpleasant or even downright hostile. Be prepared to tough them out with a smile. Finally, be business-like.

So, You Want to Process and Direct-Market Your Catch?

Welcome to the club. This has been a dream of lots of fishermen who want to improve the return they get from their catch. Some sell their catch to regular processors on shore — many freezer trollers for example. But, for many, the motivation is direct marketing. For all such operations, a few basic concepts apply.

Space - Get as much room as you can afford. If you are starting from scratch, buy the biggest platform you can afford. If you are constrained by your existing boat, be realistic in your expectations and do all you can to free-up space.

Think out your process from start to finish. How is the catch landed and moved around the boat or facility? What will happen to the catch, and where? How will it be stored?

The specific regulations you will have to follow vary from one jurisdiction to another. The suggestions made here are only general. There is no substitute for reading and understanding the regulations yourself. Talk with the responsible authorities before setting up your vessel or small shore operation for direct market processing. Regulatory authorities want to help you succeed and often can supply a lot of good advice but, remember, their first responsibility is to ensure public food safety.

Surfaces - The surfaces that come into direct contact with your product must be of **food-grade materials** — that is, materials that are easy to clean and sanitize, do not impart tastes or odors and do not promote bacterial growth and contamination. Regulations in your area may allow properly treated wood surfaces, but non-porous metal and food grade plastics are your best bets, and, when it comes to metals, go stainless if you can. A lot of operations use aluminum tables, but aluminum corrodes and pits easily. Good-quality stainless steel is durable, easy to clean and resistant to chemicals and corrosion. It’s expensive but bargains may be found by shopping at restaurant supply houses. Often standard restaurant shelving, cutting tables and sink set-ups can be used directly or customized to work on your boat.

Non-food contact surfaces in your processing area must also be addressed. First, processing functions need protection from the elements and from outside sources of contamination.

Many boats use converted bait sheds for processing purposes. Aluminum bait sheds can work just fine, but pay attention to:

- **The interior framing**, to make sure surfaces drain well, don’t readily accumulate dirt and contaminants and are easy to reach with cleaners and sanitizers. These principles apply to processing shelters made of other materials as well. In an ideal situation, on-board processing areas should be lined with impervious, easy-to-clean, non-porous paneling, just like that used in on-shore processing operations.
- **Possible sources of contamination**, such as fuel or hydraulic lines, which should be re-routed and/or shielded to prevent drips or leaks contaminating product or product contact surfaces. This may include running such lines through protective conduit or routing lines below or outside processing areas. For hydraulics, consider switching to food-grade fluid if re-routing is difficult or costly. You may have to do this anyway if you are using hydraulic power in your processing line, for instance, to power a conveyor or similar machinery.
- **The floor of your processing area**, which should be designed to drain well and be easily flushed, cleaned and sanitized. False decks that are common on many fishing boats can readily accumulate gurry and contaminants. Grating should be easy to lift and clean.

Lighting - Your processing area should be bright. This is important for properly working product and for effective cleanup and sanitation. Regulations may prescribe required illumination levels. Lighting in processing areas should be with safety-type fixtures suitable for marine environments and designed to prevent breakage and contamination of product and surfaces.

Water supply - Regulations in your area are likely to be quite specific about process water supply. Clean seawater may or may not be acceptable for primary rinsing, product transport and initial product processing operations. Check regulations. In any case, you should always:

- Avoid any highly turbid or nearshore waters;
- Never use water taken from inside a harbor;
- Stay away from other vessels while processing;
- Do not flush your head or pump out sanitary holding tanks while drawing processing water. (Your water and sanitary systems should have valves that physically prevent this possibility, even if that is not a requirement of regulations in your area.)

Regulatory authorities want to help you succeed and often can supply a lot of good advice but, remember, their first responsibility is to ensure public food safety.

- Make sure that your processing water system is segregated from any other pumping system. Cross-connections with bilge pumps and other non-sanitary systems are not permissible.

Systems are available to provide continuous treatment of processing water with chlorine or other agents, including acidified chlorine dioxide and ozone. Such systems work well and may be required in your area. Batch chlorination of final rinsewater may be an acceptable alternative, if allowed by regulation. If using batch chlorination, give products a thorough final rinse in the chlorinated solution, keep careful tabs on residual chlorination levels (such checks are likely specified in regulation) and change the solution frequently.

Effective cleaning and sanitizing starts with good organization. Your processing area should be simple and uncluttered.

Cleaning and Sanitizing - "Cleanliness is next to godliness" and nowhere is that more important than in seafood processing. You simply must keep your processing area clean. Effective cleaning and sanitizing starts with good organization. Your processing area should be simple and uncluttered. Eliminate hard-to-clean nooks and crannies and keep processing surfaces accessible. Bleeding tanks, cutting tables and other processing areas should be flushed regularly and kept free of excessive build-up of blood and gurry while processing.

Cleaning and sanitizing should begin immediately after you have finished processing. Start with a good washdown with plenty of clean water. Follow with a good scrubbing of all surfaces with a detergent that is approved for food processing areas. Do not use phenolic cleaners such as Lysol® or PineSol®. Keep a good set of scrub brushes on hand, specifically for these cleaning purposes. Brushes and plenty of elbow grease can do a fine job. Remember to give a little extra effort to those hard-to-reach places that can harbor bacteria. Thoroughly rinse off all detergent. Next, apply sanitizing solution throughout the processing area. An effective sanitizing solution can be prepared with simple household bleach and clean water.

Pressure washers are excellent for cleaning and sanitizing and can significantly reduce your workload. Pressure washer units designed for marine use are available at reasonable prices. They can be mounted in your engine room, with outlets conveniently located on deck, where they are needed.



13

Direct Marketing Prawns

Greg Fisk

SeaFisk Consulting and Alaska Sea Grant Marine Advisory Program

In recent years, the spot prawn fishery has seen a lot of growth in direct marketing activity. In North America, there are active prawn fisheries from southern California to Southeast Alaska.

Spot prawns lend themselves to direct marketing for several reasons:

- Catch rates are modest, so the physical burden of handling and the amount of space needed is not great.
- Pot or trap gear is standard in the fishery, so costs of gearing up are pretty reasonable and the gear is fairly easy to fish.
- Prawns are in high demand and supply is quite limited, so prices are high.
- Marketing opportunities exist with several product forms — live, fresh tails, frozen tails and whole frozen.

Spot prawns are much sought-after in Japan. They are often served as sashimi and are commonly referred to as *botan-ebi*.

Japan dominates the market for West Coast spot prawns, with roughly 90 percent of British Columbia's production and 50 percent of Alaska's production being exported to Japan. Nearly 75 percent of all West Coast production ends up in Japan in a typical year. The domestic market is also dominated by Asian-American ethnic markets in the cities of San Francisco and Los Angeles.

In ethnic seafood markets in Los Angeles and San Francisco, high percentages of prawns are sold live. Ex-vessel prices are in the range of \$10.00 to \$13.00 per pound, and retail prices can be astronomical. There are also strong markets for live prawns in Seattle and Vancouver.

Prawns are temperamental but can be successfully held for a number of days on board the fishing vessel with a good circulating tank. Temperature, oxygen and salinity must be carefully monitored. Keeping prawns at a lower than ambient seawater temperature slows down metabolism and seems to help reduce mortality. Water to replenish circulating systems should be drawn from well below the surface to avoid thermal shock and low-salinity surface water that can quickly kill the prawns. However, the best practice is to get the live prawns delivered as soon as possible.

Most prawn fishing takes place in British Columbia and Alaska in areas remote from major live markets. Whole prawns deteriorate very rapidly after death because of enzymes in these animals' gut and thorax. Quality of the valuable tail meat can be extended by quickly removing the tails and chilling them. For this reason, fishermen have been "poppin' heads" on shrimp for decades. In Alaska, it is common for fishermen to fill five-gallon lidded buckets with shrimp tails and to immerse the buckets in slush ice. This works well to keep tails fresh somewhat longer, but the tails still deteriorate rapidly, compared to most fish. Processors often charter floatplanes to remote fishing locations to pick up the buckets of tails.

Selling fresh tails at dockside is fairly common, but a high percentage of "fresh tails" are sold to shore-based processors who freeze them for later wholesale. This results in the lowest price to the fisherman, however. Processor prices for fresh tails have been in the range of \$4.00 to \$5.00 in recent years. With tails yielding roughly 50 percent, that means a price of \$2.00 to \$2.50 per whole pound.

Many fishermen have responded to that price / quality dilemma by freezing at sea and direct-marketing their catch. Direct marketing takes several forms – retailing to the general public, selling to stores and restaurants, or simply bypassing processors and selling through specialized brokers.

Frozen tails can easily yield double the price of fresh tails sold to a processor, which makes it worthwhile to invest in the freezing equipment, packaging and extra production and sales effort.

Another big step in value can be taken by freezing whole, sushi-grade prawns onboard. Prices for whole frozen have been in the range of \$6.00 to \$9.00 in recent years. Since this is effectively three to four times the value of fresh tails sold to a processor, the allure of whole-frozen to the fisherman is obvious. However, processing sushi-grade prawns is labor-intensive and requires careful attention to detail.

Spot prawns for Japan are graded according to a generally accepted standard. The grades are counts of whole prawns per kilogram.

S	Small	40+
M	Medium	34/40
L	Large	25/33
XL	Extra Large	20/24
XXL	Extra, Extra Large (or Jumbo)	15/19
XXXL	Jumbo (Extra Jumbo)	10/14

Careful size grading is very important, as buyers are looking for uniformity within grades. Most Alaska production falls within M, L and XL grades, with a small amount of XXL. Very few Extra Jumbos are seen, and the mesh size restrictions on pots pretty much eliminate the S grade.

After size grading, live prawns are dipped in an anti-oxidant solution. This solution helps preserve the color of the prawns after they are frozen. Most buyers provide their preferred compounds. Some are legal for sale in the U.S., others are not,

so if you are thinking of selling part of your catch to domestic sushi bars make sure you use a solution that is US government approved.

Right after the dip, the prawns are carefully “finger” packed. The 1 kg prawn box is standard on the West Coast. The boxes are then placed in the flash freezer. Once frozen, the boxed prawns are then be packed in master cartons (12 boxes per carton) and held at a constant -30° Celsius (-22°F) onboard.

All this requires a substantial investment in top quality freezing systems, processing set-up, and materials. It also means more manpower. Nonetheless, the great majority of the vessels fishing prawns in British Columbia are equipped to freeze on board, and fully 80 per cent of the BC catch is produced in this manner. An additional 10 percent is produced in the same product form but is done in shore plants where fishermen can deliver live product. The remaining 10 percent goes to the live and fresh markets in Vancouver, with some of that being shipped live to California. In Alaska, roughly 50 percent of production is now done for the Japanese market.

The trader's role is to match the flow of product to the demand by “sourcing” from numerous suppliers and trying to supply each customer what he or she needs.

Product	Price	Round Weight Equivalent	Comments
Live	\$7.00 - \$15.00	same	Los Angeles, San Francisco, Seattle, and Vancouver support substantial live markets, but if you are not fishing within quick trucking distance these are not practical alternatives. Your local area might support limited sales off your vessel.
Fresh Tails	\$4.00 - \$5.00	\$2.00 - \$2.50	Whole fresh is an alternative in the big urban areas, but isn't practical for most fishermen because of rapid spoilage. Fresh tails are a better bet. But the major market for fresh tails is to processors who freeze the tails for later sale.
Frozen Tails	\$8.00 - \$15.00	\$4.00 - \$7.50	A good alternative for many fishermen. Basic freezing systems will do, as frozen tails are not as demanding as sushi-grade. Readily accepted product form for domestic consumers. Market readily absorbs all available production.
Whole Frozen	\$6.00 - \$9.00	same	Top dollar for frozen product, limited down time from fishing, greater operational flexibility. But “nit-picky” production requirements and competition from other “sweet” shrimp sources make the market a bit variable.

Processing frozen prawn tails at sea is less “nit-picky” than doing Japanese pack but still requires some care. Some fishermen sell “ocean run,” but most do at least basic grading into large, medium and small sizes. Typical packs are individually quick-frozen (IQF) in bags or frozen in boxes.

IQF product is usually done on freezer pans, spray glazed after freezing, then packed in Ziploc-type bags — typically two pounds per bag. IQF product is convenient for consumers to use but the glazing usually is not as effective and the product is more prone to freezer burn. Most boxed product goes into standard one-kilogram prawn boxes.

Once frozen, the boxes are opened, quickly dipped in glaze and drained. This results in a durable glaze but the product is more of a block and a bit less convenient. A popular glaze is made with clean, fresh water and corn syrup. The corn syrup adds flexibility and staying power to the glaze.

In Alaska, the number of prawn freezer boats and the proportion of frozen at-sea product are both increasing steadily. Trollers who had already equipped their vessels to freeze salmon have adapted their systems to also freeze prawns. However, increasing numbers of fishermen are investing in systems designed primarily for prawns. Deck- or hatch-mounted single-contact plate freezers are popular, and hatch-mounted blast freezing units are also available.



Marketing Internationally

Pete Granger

Washington Sea Grant

Bennett Brooks

formerly with Alaska Department of Commerce & Economic Development

14

You've had some experience and success in marketing your seafood to domestic markets and you've heard that export markets may be more profitable. Or, you have an opportunity to exploit a specialty product that is sold only into an international market. Be prepared to encounter a variety of new opportunities and challenges.

Frozen-at-sea trollers in Oregon and Washington have created opportunities in selling under 10-pound king and under six-pound coho salmon to Japan. Pacific cod longliners have a ready market for their product in the Far East. Divers for sea cucumber in Southeast Alaska ship their product to Hong Kong. Coastal Oregon fishermen are experimenting with live shipment of crab and rockfish to Taiwan.

The challenges are found in dealing with the 17-hour time difference with the Far East and the foreign languages, international trade regulations, changes in packaging and different business practices to be encountered when entering the export market.

Exporting means selling your seafood products in new markets, often in new ways or new configurations. There is much that will be unfamiliar to first-time exporters. Gaining success in the midst of this "newness" means a substantial amount of work requiring new commitments and resources. For those of you facing the decision whether to export, we offer a list of some of the issues commonly faced in deciding if exporting is the right choice for your seafood operation at this point in time:

- Do you have someone you can hire or contract who is familiar with seafood export procedures? *Traders and brokers with a long history of international sales abound in Washington, Oregon and Alaska. Larger foreign buyers have company representatives with offices in Seattle.*
- Can you afford to dedicate the time and energy required for an export project? *If you are part of your fishing operation, are you willing to come ashore and tackle the selling and marketing of your product?*
- Do you have the production capacity to accommodate export sales? *Domestic niche markets can often accommodate less-than-truckload (LTL) sales. Products*

such as live shellfish and fresh salmon also can be exported via air freight in LTL quantities. But foreign markets for such commodities as frozen salmon, bottomfish, and crab demand sales in vanload quantities.

Exporting means selling your seafood products in new markets, often in new ways or new configurations. There is much that will be unfamiliar to first-time exporters.

- Do you have the capital to invest in developing export markets? *If you do not have your own dollars or those of a financial backer, selling to a trader who is familiar with the export market and is willing to take possession of your product is an option.*
- Are you willing to do things (product configuration, including boxing and labeling, production, selling, etc.) in new ways? *Often, you must find a custom processor or packer who is familiar with export requirements or must be taught by you or your representative those requirements.*

When you have considered these issues and feel you are ready to move forward, there definitely is a steep learning curve.

Five Steps To Success

Step 1: Selecting Possible Markets:

You must make choices of export markets that suit your product. To do that, you need to ask several questions, including:

- Which markets are importing fish like ours? *There are some standards, such as medium coho to France, chums to England and Germany, cod to Spain and Eastern Europe, sockeye to Japan and specialty shellfish to the Far East. However, there are emerging markets in China, Russia and other locales, where a burgeoning middle class is just acquiring tastes for salmon and halibut and can pay for them.*

- Where are our competitors selling their products? *You have to gauge whether a market is not already saturated or if someone is already there and needs more product. Perhaps it is more to your advantage to partner and combine production capabilities with a fisherman who has already pioneered a market.*

- Where do we have a cost advantage? *You need to figure out the following costs for your product and then compare them to dock prices for similar product to see whether there is enough margin for you to make it worthwhile*

Processing costs, including grading, boxing and cold storage

Insurance, financing and transaction costs

Loading, transfers and overseas freight

Certification or inspection fees

Documentation

Customs duties, tariffs and taxes

Exchange rate differences (if applicable)

Sales brokerage (if applicable)

Product testing (if applicable)

Additional overhead, such as your time spent on this new venture.

- Where do we have a product quality advantage? *This may be the most important advantage you have — the one that sets you apart from the competition and gets you the extra profit you are seeking. How do you maintain that product integrity for the long journey overseas?*

- Which markets have contacted us? *Should you be so fortunate as to be approached by a foreign buyer or a trader or broker looking for product, by all means investigate and decide if you should exploit that market with them or on your own.*

Step 2: Investigate Foreign Regulations and Trade Barriers

There is the story of a salmon fisherman who shipped a short vanload of frozen coho to Japan and added two boxes of kings as a gift to his buyer. Japan customs agents seized the entire load, thinking the fisherman was misrepresenting his product. By the time the buyer and his legal representative had untangled the mess, all of the fisherman's profit had been sucked out of the shipment in legal fees. His letter of credit expired in the process and payment was delayed another two months!

Doing business across borders is a tangle of regulations and paperwork. Precision counts and mistakes — particularly when shipping fresh seafood — can be costly. Most important, you

must be aware that exporting your seafood involves a series of bureaucratic hurdles, with laws and requirements that vary from country to country.

Every shipment of seafood you send abroad must be accompanied by several documents, regardless of country of destination. At a minimum, these include a **certificate of origin**, **commercial invoice** and a **packing list**.

Many countries require a general **certificate of wholesomeness**, issued by a state or federal agency, depending on the shipment's origin. This is especially true if the product is live shellfish. Others may require more specific testing, depending on the type of product, especially if it is live shellfish.

For example, if you want to ship seafood to the European Union (EU), you will first need to be approved by either the US Department of Agriculture (USDA) or US Food and Drug Administration (FDA). Once you are approved, you are then registered by FDA on a list that is sent to EU for validation. Once you are validated by EU you are assigned an FDA number. This number, together with the catch area where the product was harvested, and the commercial and Latin name of the product, has to be included in a document, such as an invoice. This is done to ensure a perfect traceability of the product. Moreover, specific labeling, inspection, and document requirements are applied to different product categories such as fresh, frozen, canned, etc. Further, each individual country within the EU may have specific documentation requirements.

It is not impossible for you to handle these requirements by yourself. However, with all the other worries of your business, you would be advised to seek help from freight expeditors, customs brokers and your financial institution.

You must also consider tariff rates — the tax imposed by each country on imports. These tariffs vary greatly and must be considered in pricing your product, so as to cover this added cost and provide a profit margin as well. The Web site of NOAA Fisheries (formerly National Marine Fisheries Service) contains information on tariff schedules for various countries and the European Union at www.nmfs.noaa.gov/sfal/PartnershipsCommunications/tradecommercial/tariffs.html.

Step 3: Learning Foreign Business Practices

You've identified a market and learned what paperwork is needed to qualify and ship your product. Now you need to familiarize yourself with the culture and business norms of your product's international destination. It is also important to know any trade terms used in international circles. Some of these are defined in Appendix N of this manual.

As simple a notion as sending faxes on time will go a long way toward cementing relationships with others, including buyers in Japan. Late replies to faxes will send a signal to would-be customers that you may not be trustworthy. Even

Resources for International Marketing Assistance

State Marketing Officials

(for expertise, statistics, foreign offices and contacts, and knowledge of regulations)

Federal Marketing Officials

- Department of Commerce NOAA/NMFS Office of Constituency Services
Commercial Fisheries Specialists
European Markets (Belgium Office)
Stephanie Vrignaud: Stephanie.Vrignaud@mail.doc.gov
Tel: 011-32-2-508-28-42
Fax: 011-32-2-513-12-28
- *Asian Markets (Japan Office)*
Tom Asakawa: Tomohiro.Asakawa@mail.doc.gov
Tel: 011-81-33-224-5077
Fax: 011-81-33-589-4235

State Marketing Programs

- Alaska Seafood Marketing Institute, www.alaskaseafood.org, 800-806-2497
- Fisheries Development
Department of Commerce, Community & Economic Development
907-465-5464, 907-465-5085 Fax
www.commerce.state.ak.us/oed/seafood/seafood.cfm
- Washington Office of Trade & Economic Development, www.cted.wa.gov/contactitd, 206-256-6100
- Oregon Department of Agriculture, Export Service Center, www.oda.state.or.us/lab/esc.html
agmarket@oda.state.or.us
503-872-6600, 503-872-6601 Fax
www.oregon.gov/ODA/ADMD
- World Trade Center Alaska, www.wtcak.org, 907-278-7233
- Washington Department of Agriculture, International Marketing & Export Assistance, www.agr.wa.gov/marketing/International, 360-902-1915.

Trade Publications and Web sites

- Worldcatch – The Wave, www.waveonline.com
- Intrafish, www.intrafish.com
- Pacific Fishing Magazine, www.pfmag.com
- Seafood Business, www.seafoodbusiness.com
- Infofish, www.infofish.org
- Globefish, www.globefish.org
- National Fisherman, www.nationalfisherman.com

Other

- International Boston Seafood Show, www.bostonseafoodshow.com
- Western U.S. Agricultural Trade Association (which covers seafood products as well), www.wusata.org/
- European Seafood Expo, www.euroseafood.com
- China Seafood Show, www.chinaseafoodshow.com
- Northwest Trade Adjustment Assistance Center, www.taacenters.org

more than in domestic U.S. markets, good relationships with foreign buyers spell the difference between failure and success. Once you've established a trustworthy relationship — one based on honesty and fairness — with a buyer in the Far East or Europe, that sales option for you will last a long time. After they've established such a relationship, foreign buyers tend to be far less fickle than domestic customers.

One of the ways to build relationships is to observe and bridge some of the cultural differences while doing international business. For example, if you have a potential customer from China, it will not hurt if you make sure that they have at least one or two meals served with white rice or noodles. Many Chinese are not used to having western meals with large portions of potatoes and meat. A simple gesture like that can help foster life-long business relationships.

Step 4: Financing Your Transaction and Covering Your Risk

Marketing your fish internationally adds several layers of risk and expense that must be considered when putting together your business plan and calculating your costs.

Extra costs can involve such things as additional time and energy overseeing the operation, international travel to make arrangements and meet customers, and shipping and insurance to cover contingencies that occur once the product leaves the U.S.

You must be prepared for any and all contingencies. For example, what if your fresh shipper left your shipment of sockeye on the tarmac at Seattle-Tacoma International Airport and it spoiled? What should you do if your product arrives in Taipei and the buyer backs out of the deal — or worse, they pick up the product and refuse to pay? You obviously need to take protective measures to deal with these and a myriad of other contingencies. These include: proper product, transport and customs insurance; secure payment methods, including **Irrevocable Letters of Credit** (most big regional or national banks have international business departments that handle these); and establishing a trustworthy relationship with the buyer before any transactions occur.

Pay particular attention to how you are getting paid. Is payment in U.S. dollars or foreign currency? What is the exchange rate at time of transaction? Is the selling price quoted covering your freight and insurance costs to destination (CIF – fish cost, insurance, freight or C&F – fish cost, freight) or does foreign buyer cover those costs (FOB – free on board)?

Marketing Intentionally: Top Seven Suggestions

- Be patient, persistent, committed. Short-term wins in international trade are the exception. Be ready to spend years developing a market
- Start small and don't promise more than you can deliver. Your credibility as a reliable supplier is essential.
- Develop an international marketing plan that focuses on just one or two countries. Don't chase orders from around the world.
- Pay attention to your overseas buyers, even when the domestic market booms. Long-term, stable relationships are critical.
- No two markets are alike. Be willing to modify your product's processing, packaging, etc. to meet the needs of your foreign buyer.
- Know the import laws and norms of your buyer's market and don't deviate. If necessary, hire experienced intermediaries such as expeditors, brokers and traders, to ensure you are satisfying all regulations.
- Communicate frequently and clearly with your buyer. Be prompt in answering all queries.

Step 5: Choosing Partners

After you have identified some target markets that fit your seafood product and have learned about the different regulations, business practices and financial aspects of exporting, you are still going to need some assistance from partners or direct representatives who can help with sales, transporting and financing. We've already discussed the benefits of freight expeditors, customs brokers and financial institutions. However, if you really are committed to exporting and simply don't have the time or expertise to initiate all this by yourself, you need to engage a sales agent or partner. Sales agents can help answer these critical questions:

- What are the habits of consumption? How do they differ from your home market?
- What do consumers expect from the products?
- What is the pricing for these products?
- What are the trade margins?
- How are the products packaged?
- What will be the cost of product adaptation?

Two types of sales partners are available to you: traders and brokers. Traders buy your product, usually at your place of processing or storage in the U.S. By taking possession of the product, they remove the financial and product quality risks. However, the price they pay you will reflect their assumption of those risks as well. Traders will generally keep your product in your packaging and promote it as such when it reaches its destination market.

Brokers are sales agents who sell a seafood product for you on commission. Usually brokers do not buy or acquire ownership of your product. They generally handle much of the paperwork, including arranging the financial instruments, for a fee that is negotiable. On seafood, this fee ranges from two to five percent of the sales price, but it can also be on a cents-per-pound basis.

Once you've used a sales agent or broker to get your export business started, there may come a time when you want to take over that function yourself.

Appendix A

Fisheries Business Financing and Business Assistance in Alaska

Sunny Rice, Alaska Sea Grant Marine Advisory Program

Many business owners get started without commercial financing by borrowing from friends and relatives. However, commercial banks, cooperative lending institutions and government loan programs are sources of small business financing and are good places to begin the search for capital.

Consider contacting a lender to describe the business plan prior to completing any formal application. A business lender will provide helpful feedback about the business and the environment in which it will operate. Developing a relationship with a loan officer is a useful step toward becoming a successful business owner.

State and federal governments also offer a variety of loan programs for small businesses. Some of these programs are offered exclusively to Alaska Natives, veterans, women and minorities.

Not all business assistance programs offer loans but may provide technical assistance to help you prepare loan applications and qualify for financing. The following is a list of resources for loans and for technical assistance.

See also the Alaska Sea Grant publication *Business Resource Guide for Alaska Fishermen* for a more comprehensive list of business, technical and financial resources.

Technical and Financial Resources

- **Alaska Business Development Center, Inc. (ABDC)**

3335 Arctic Blvd, Ste 203
Anchorage, AK 99503
Phone: (907) 562-0335
Toll Free: (800) 478-3474
Fax: (907) 562-6988
www.abdc.org

The Alaska Business Development Center, Inc. (ABDC) is a nonprofit corporation that offers personalized technical and financial services to Alaskan small businesses, with a specialized focus on Alaskan commercial fishermen and seafood businesses. ABDC also offers workshops for business training in various topics such as cash flow management, loan packaging and strategic planning.

- **Alaska Department of Commerce, Community and Economic Development (DCCED)**

550 W. 7th Avenue, Suite 1770
Anchorage, AK 99501
Phone: (907) 269-5734
Fax: (907) 269-8125
www.dced.state.ak.us

Facilitates economic development and employment opportunities, particularly in rural Alaska. Offers specialized assistance in tourism, fisheries and minerals sectors.

- **TCC Business Development Center**

122 1st Avenue, 2nd Floor, Suite 202A
Fairbanks, AK 99701
Phone: (907) 452-8251
Fax: (907) 459-3957
www.tccbusinessdevelopment.com

Dedicated to improving economic growth in Alaska by expanding lending opportunities made available to small businesses. The BDC provides capital that will improve economic growth by creating and maintaining jobs.

- **Alaska Regional Development Organizations (ARDORs)**

Office of Economic Development
550 West 7th Ave., Suite 1770
Anchorage, AK 99501
Phone: (907) 269-8104
Fax: (907) 269-8125
www.commerce.state.ak.us/oed/ardor/ardor.htm

ARDORs were created as means for the state to work with communities to stimulate economic development. These nonprofit organizations are located throughout the state and provide assistance with business plan writing, business workshops and technical assistance.

- **Alaska Village Initiatives (AVI)**

1557 C Street, Suite 304
Anchorage, AK 99501
Phone: (907) 274-5400
Toll Free: (800) 478-2332
Fax: (907) 263-9971
www.alaskavillageinitiatives.com

AVI is a nonprofit membership based rural community development corporation that offers a variety of business assistance and loan programs to both members and nonmembers. These programs include business education and development, various loan funds, demonstration economic development, computer training and assistance and cooperative development programs.

- **Alaska DCCED Division of Investments**

P.O. Box 34159
Juneau, AK 99803-4159
(907) 465-2510 or (800) 478-5626
(907) 465-2103 Fax
investment@commerce.state.ak.us
www.dced.state.ak.us/investments

The Division of Investments' primary responsibility is to administer seven "state loan" programs, each of which is designed to promote economic development in a particular segment of the state's economy. Of possible interest to fisheries direct marketers is the Commercial Fishing Revolving Loan Program, although others may pertain in some cases.

- **Alaska DCCED Office of Fisheries Development**

P.O. Box 110804
Juneau, AK 99801-0804
(907) 465-5464
(907) 465-5085 Fax
debbie_maas@commerce.state.ak.us
www.commerce.state.ak.us/oed/seafood/seafood.cfm

Office of Fisheries Development provides a variety of information and services pertaining to fisheries, seafood marketing and related matters. Staff can help fishermen locate sources of financing and can point to other sources of information. OFD maintains a large fisheries-related website.

- **Bureau of Indian Affairs (BIA)**

P.O. Box 25520
Juneau, AK 99802
Phone: (907) 586-7103
Toll Free: (800) 645-8397
Fax: (907) 586-7037
www.doi.gov/bureau-indian-affairs

The Credit and Finance Office of the BIA offers business assistance and referrals for Alaska Native-owned and -controlled new and expanding businesses. BIA contracts with tribes and regional nonprofits to provide credit and finance services. BIA also provides loan guarantees for small business owners on loans made by a commercial bank.

- **Commercial Fishing and Agriculture Bank**

2550 Denali Street, Suite 1201
Anchorage, AK 99503
(907) 276-2007 or (800) 544-2228
(907) 279-7913 Fax
www.cfabalaska.com

CFAB is a member-owned lending cooperative that specializes in fishing, agriculture, tourism and other resource-based industries. It is a major lender in the Alaska commercial fisheries, making loans for vessels, permits, quotas, gear, processing equipment and shore-based facilities.

- **Small Business Administration (SBA)**

510 L Street, Suite 310
Anchorage, AK 99501
Phone: (907) 271-4022
Toll Free: (800) 755-7034
Fax: (907) 271-4545
www.sba.gov

SBA is a federal agency that offers financing, training and advocacy for small businesses. SBA has multiple programs that assist small businesses in becoming successful. Many of these programs focus on minority-owned businesses. SBA also offers online training in short format or week-long seminars.

- **Alaska Sea Grant Marine Advisory Program (MAP)**

1007 W. 3rd Avenue, Suite 100
Anchorage, AK 99501
Phone: (907) 274-9691
Fax: (907) 277-5242
<http://seagrants.uaf.edu/map>

MAP has a marketing specialist, a fisheries business specialist and several seafood quality specialists, and has publications written for commercial fishermen on preparation of financial statements, on borrowing alternatives and completing loan applications. MAP agents are also located in Ketchikan, Petersburg, Juneau, Cordova, Homer, Dillingham, Bethel, Kodiak, Nome and Anchorage. Six MAP agents helped produce this marketing manual.

- **University of Alaska Small Business Development Center (SBDC)**

430 West 7th Avenue, Suite 110
Anchorage, AK 99501
Phone: (907) 274-7232
Toll Free: (800) 478-7232
Fax: (907) 274-9524
www.aksbdc.org

The University of Alaska SBDC offers business assistance and provides workshops and programs focused on Alaskan small businesses. SBDC has offices located in various communities throughout the state as well as a Rural Business Outreach Program.

Appendix B

Working with the IFQ Program

John Kingeter, Assistant Special Agent in Charge of Alaska, NOAA Fisheries Office for Law Enforcement

Fishermen who legally harvest halibut and sablefish under the IFQ program may direct-market their catch, provided that they comply with all the pertinent state and federal regulations. The Federal regulations are summarized below.

IFQ Permits: An IFQ permit authorizes participation in the fixed-gear commercial fishery for Pacific halibut off Alaska and most sablefish fisheries off Alaska. IFQ permits are issued to persons and are not specific to vessels. Permits are issued annually, at no charge, to persons holding fishable Pacific halibut and sablefish quota.

IFQ Card: Any individual who commercially harvests halibut or sablefish with authorized gear must have a valid IFQ card issued pursuant to an IFQ permit, be aboard the vessel at all times during the fishing operation, sign any required fish tickets, and sign the IFQ landing report. IFQ cards are not specific to vessels except for hired skipper IFQ cards which authorize named individuals to harvest IFQ fish on one particular vessel only.

Processing: Processing definition includes cooking, canning, smoking, salting, drying, freezing but does not mean icing, bleeding, heading or gutting. It is unlawful to possess processed and unprocessed IFQ species on board a vessel during the same trip except when fishing exclusively with IFQ derived from vessel category A quota share (QS). Only category A sablefish may be processed at sea. Halibut may not be processed at sea except that only category A halibut IFQ cardholders may freeze whole halibut at sea. All halibut must be either gutted and gilled or headed and gutted only. Halibut may not be filleted or further processed on a vessel.

Fish other than IFQ halibut or IFQ sablefish may be processed on a vessel, as long as no persons aboard the vessel are authorized to harvest IFQ halibut based on allocations of IFQ resulting from QS assigned to vessel categories B, C, or D. In other words, no processing of any fish may take place on a vessel when any person on board is authorized to harvest halibut that cannot be processed at sea.

Prior Notice of Landing (PNOL): The operator of any vessel making an IFQ landing must notify NOAA Fisheries Office for Law Enforcement (OLE) no fewer than 3 hours before landing IFQ halibut or IFQ sablefish. This PNOL must be made to the OLE Data Clerks at 800-304-4846 (select option 1) between the hours of 0600, Alaska local time, and 2400 hours, A.I.t. A PNOL must contain information as listed by the regulations.

Transshipment Authorization: In addition to the PNOL and landing report requirements, to transship frozen IFQ halibut or processed IFQ sablefish ("A" category QS only) between vessels, vessel operators must obtain authorization from a local OLE Officer or Special Agent. Authorization must be obtained for each instance of transshipment at least 24 hours before the transshipment is intended to commence. Vessel operators must submit information as listed in the regulations.

The purpose of the PNOL and Transshipment Authorization is to facilitate enforcement monitoring and auditing of offloads to verify

accuracy of catch reports. In addition, PNOLs facilitate biological sampling by the International Pacific Halibut Commission.

A Registered Buyer Permit is required for any person to receive IFQ halibut or sablefish or CDQ halibut from the person that harvested the fish. It is unlawful to make an IFQ halibut or sablefish landing other than directly to (or by) a Registered Buyer. Permits are non-transferable, issued annually, on request, and at no cost by NMFS RAM Division.

Nothing in the regulations prevents a fisherman from obtaining a Registered Buyer Permit and becoming his own permitted receiver of IFQ fish. In fact, this permit is required of any person who harvests IFQ halibut or sablefish or CDQ halibut and transfers such fish in a dockside sale, outside of an IFQ regulatory area or outside of the State of Alaska. A fisherman who legally harvests IFQ halibut or sablefish may transfer (including selling) his catch to entities other than permitted fish processing facilities if he has a Registered Buyer's permit and complies with the recordkeeping and reporting requirements of that permit.

Once one IFQ fish is offloaded, all fish of that species (halibut or sablefish) must be offloaded from the vessel at that site, weighed, and debited from the IFQ permit holder's account under which the catch was harvested. The vessel operator is legally responsible for the act of offloading fish. Once landing operations have commenced, the IFQ cardholder and the harvesting vessel may not leave the landing site until the IFQ account(s) is properly debited. The offloaded IFQ species may not be moved from the landing site until the IFQ landing report is received by OLE and the IFQ cardholder's account is properly debited. If a fisherman wishes to transfer or sell only a part of his or her load (either halibut or sablefish) to one Registered Buyer, he or she must offload, weigh, and report the entire load. The remaining catch may then be put back aboard the vessel and held for subsequent transfer to other receivers. If IFQ fish are loaded back onto the harvesting vessel after landing, they must be recorded as "retained" on the IFQ landing report or the Registered Buyer must submit a Product Transfer Report (See PTR section below) prior to the transfer back to the vessel.

Landing Report: The Registered Buyer must report an IFQ landing within 6 hours after all such fish are landed, prior to shipment of said fish away from the landing site, and prior to departure of the delivery vessel from the landing site. An IFQ landing may commence only between 0600 hours, A.I.t., and 1800 hours, although there is no regulatory limit on how much time is taken to complete the offload once it is commenced (begun), regulations require the offload to be continuous in a manner that does not defeat enforcement monitoring.

Electronic landing reports must be submitted to OLE. NMFS now offers two electronic options by which Registered Buyers may report IFQ landings and CDQ halibut landings: Automated Transaction Machines (ATMs) or the Internet. It is the responsibility of the Registered Buyer to locate or procure an ATM and report as required. Or, if reporting the landing via Internet, it is the responsibility of the Registered Buyer to obtain at his or her own expense, hardware, software and Internet connectivity to support Internet submissions and report as required.

The IFQ cardholder must initiate a landing report by using his or her own magnetic card and personal identification number (PIN) as well as supplying the area of harvest information. The Registered Buyer must accurately submit the rest of the information for the

landing report as listed in the regulations.

An IFQ landing report must be completed and the IFQ account(s) properly debited within 6 hours after the completion of the IFQ landing. If unprocessed IFQ halibut or IFQ sablefish is offloaded from a vessel, the scale weight of the halibut or sablefish actually measured at the time of the offload is required to be reported on the IFQ landing report.

If processed IFQ sablefish or frozen IFQ halibut ("A" category quota share only) is offloaded from a vessel, the scale weight of the halibut or sablefish processed product actually measured at or before the time of offload may be reported on the IFQ landing report. If the product scale weights are taken before the time of offload, then the species and actual product weight of each box or container must be visibly marked on the outside of each container to facilitate enforcement inspection and auditing during offload.

After the Registered Buyer enters the landing data and a receipt is printed, both the IFQ cardholder and the Registered Buyer's representative must sign the receipt to acknowledge the accuracy of the landing report. Legible copies of the receipt must be retained by both the Registered Buyer and the IFQ cardholder.

Nothing in regulation specifically prohibits the transfer of IFQ catch to tenders for delivery to processors. However, an electronic landing report must be filed, IFQ accounts debited, and signatures obtained on-site at the time of offload. As of mid-2003 no operators had successfully devised a way of filing electronic landing reports from tender vessels at sea. So, from a practical perspective, the practice of tendering IFQ fish is prohibited until a reliable system of legally filing electronic landing reports at sea is operational.

Dockside Sales: Dockside sale means the transfer of IFQ halibut or IFQ sablefish from the person who harvested it to individuals for personal consumption, and not for resale. A Registered Buyer's Permit is required of any person who harvests IFQ halibut or sablefish and transfers such fish in a dockside sale. A Registered Buyer conducting dockside sales must issue a receipt in lieu of a shipment report, that includes the date of sale or transfer, the Registered Buyer Permit number, and the fish product weight of the IFQ sablefish or halibut transferred to each individual receiving IFQ halibut or IFQ sablefish. All IFQ fish must be off-loaded, weighed, and a landing report submitted as described earlier before transferring them in a dockside sale.

IFQ Departure Report: A vessel operator who intends to make an IFQ halibut or IFQ sablefish, or CDQ halibut landing outside of Alaska must submit an IFQ Departure Report, by telephone, to OLE at 800-304-4846 (select option 1) between the hours of 0600 A.l.t., and 2400 hours, A.l.t. The vessel operator must submit the Departure Report after completion of all fishing and prior to departing the waters of the EEZ adjacent to Alaska when IFQ halibut, CDQ halibut, or IFQ sablefish are on board. The vessel operator submitting an IFQ Departure Report must also have an IFQ Registered Buyer Permit and must submit landing reports for all IFQ halibut and sablefish on board at the same time and place as the first landing of any IFQ species. The vessel operator submitting an IFQ Departure Report must ensure that one or more IFQ cardholders are on board with enough remaining IFQ balance to harvest amounts of IFQ halibut, CDQ halibut or IFQ sablefish equal to or greater than all IFQ halibut, CDQ halibut and IFQ sablefish on board. The vessel operator must provide the information on the IFQ Departure Report as listed in the regulations.

IFQ Fees: A Registered Buyer that also operates as a shoreside processor and receives and purchases IFQ landings of sablefish or halibut must submit annually to NMFS a complete IFQ Buyer Report not later than October 15 following the reporting period in which the IFQ Registered Buyer receives the IFQ fish. The Registered Buyer must submit information as listed in the regulations. The Cost Recovery percentage is set annually. In 2002, it was set at 2.0 percent of the ex-vessel value of IFQ harvests. Fee Summaries (billings) are mailed to IFQ permit holders in November. Payments are due by January.

State Sablefish Fisheries: Federally permitted IFQ sablefish fishermen commercially fishing for sablefish in the State of Alaska's Prince William Sound fishery or under a State of Alaska limited entry program are not subject to the IFQ regulations requiring their accounts be debited. However, in all other State sablefish fisheries (such as North Gulf or Aleutian districts), all sablefish caught must be debited against an IFQ account if any persons on board the vessel currently holds IFQ sablefish quota shares, IFQ sablefish permits, or IFQ sablefish cards during the fishing trip regardless of the IFQ area in which they hold quota share and regardless of their remaining account balance. Note: fishermen holding only halibut IFQ quota share, IFQ permits, or IFQ cards and fishing in these State sablefish fisheries are not thusly restricted.

Vessel Activity Reports: Catcher vessels greater than 60 ft L.O.A., all catcher/processors, and all motherships holding a Federal fisheries permit and carrying fish or products onboard must complete and submit a Vessel Activity Report (VAR) by FAX or electronic file to OLE before the vessel crosses the seaward boundary of the EEZ off Alaska or crosses the U.S.--Canadian international boundary between Alaska and British Columbia. The vessel operator must submit accurate information as listed in the regulations. If a vessel is carrying only IFQ halibut or IFQ sablefish, or CDQ halibut onboard and the operator has submitted a Departure Report, a VAR is not required.

Groundfish

Any person or vessel that receives unprocessed groundfish must have a Federal processor permit (FPP) and must comply with the recordkeeping and reporting requirements. Consult the regulations for descriptions and requirements for recordkeeping and reporting. Requirements could include the following:

- Catcher vessel Daily Fishing Logbooks (DFL)
- Catcher/processor Daily Cumulative Production Logbooks (DCPL)
- Buying Station Reports
- Shoreside Processor Electronic Logbook Report (SPELR)
- Product Transfer Reports (PTR) see below
- Check-in/check-out reports
- Weekly Production Reports (WPRs)
- Daily production report (DPR)
- Commercial Operator 's Annual Report (COAR)

Product Transfer Report (PTR): Except as specifically exempted, federally permitted processors and IFQ Registered Buyers must complete and submit to the NOAA Fisheries Office for Law Enforcement (OLE) a separate PTR for each transfer of groundfish, IFQ and CDQ fish from their possession. PTRs must be completed within two hours of transfer and must be submitted by FAX (907-586-7313), or electronic file a copy of each PTR to OLE in Juneau by noon on the Tuesday following the end of the applicable weekly reporting period (Sunday through Saturday) in which the transfer occurred. Office of Law Enforcement phone number is 907-586-7225.

PTR Exemptions:

- 1) Exemption: Bait sales (non-IFQ groundfish only). See regulations.
 - 2) Exemption: Retail sales. For one day's retail sales weighing less than 10 lbs. each may be aggregated record on one PTR during the calendar day.
 - 3) Exemption: Wholesale sales (non-IFQ groundfish only).
 - 4) Exemption: Dockside sales (IFQ only). A person holding a valid IFQ permit, IFQ card, and IFQ Registered Buyer permit may conduct a dockside sale of IFQ halibut or IFQ sablefish to a person who has not been issued an IFQ Registered Buyer permit. An IFQ Registered Buyer conducting dockside sales must issue a receipt to each individual receiving IFQ halibut or IFQ sablefish in lieu of a PTR. This receipt must include the date of sale or transfer, the IFQ Registered Buyer permit number, and the weight by product of the IFQ sablefish or IFQ halibut transferred.
 - 5) Exemption: Transfer directly from the landing site to a processing facility (IFQ only). A PTR is not required for transportation of unprocessed IFQ species directly from the landing site to a processing facility for processing the IFQ species, provided the following conditions are met: A copy of the IFQ Landing Report receipt accompanies the offloaded IFQ species while in transit, is available for inspection by an authorized officer, and the IFQ Registered Buyer still completes a PTR for each transfer of IFQ halibut and IFQ sablefish from the processing facility.
- For detailed explanation of any of the above requirements, contact your nearest NOAA Fisheries Office for Law Enforcement.

Appendix C

Safety and Sanitation Requirements

Dr. Donald Kramer, Marine Advisory Program, University of Alaska Fairbanks

HACCP Requirements

A federal regulation designed to assure safety of seafood produced in or imported into the United States became effective December 18, 1997. The regulation is 21 CFR Parts 123 and 124 Procedures for the Safe and Sanitary Processing and Importing of Fish and Fishery Products; Final Rule. This regulation was established by the U.S. Food and Drug Administration (FDA) and requires use of the Hazard Analysis and Critical Control Point (HACCP) system for all seafood processing operations. Many states, including Alaska, Washington and Oregon, have adopted HACCP as part of their state regulations.

There is a training requirement in the federal regulation. Persons who develop HACCP plans, reassess or modify HACCP plans, and perform HACCP record reviews must be trained. Training can be accomplished by completing a course that uses a curriculum recognized as adequate by the FDA or by gaining qualification through job experience.

The University of Alaska Marine Advisory Program teaches the three-day course developed by the Seafood HACCP Alliance. A certificate of completion of this course is given by the Association of Food and Drug Officials (AFDO). For a listing of courses taught in the United States, go to the University of California Davis Web site at <http://seafood.ucdavis.edu/haccp/training/reg-cal.htm>.

The availability of HACCP courses in Alaska can be found on the Alaska Sea Grant web site at <http://www.uaf.edu/MAP/haccp.html>. For more information on these courses, contact Donald E. Kramer in the Anchorage Marine Advisory Program office phone: (907) 274-9695, fax: (907) 277-5242, email: afdek@uaa.alaska.edu.

In Washington, contact Richard Dougherty, Food Processing Specialist at Washington State University at (509) 335-0972 and dougherty@wsu.edu. North West Food Processors Association co-sponsors some HACCP training conducted by Dr. Dougherty. Contact Connie Kirby at (503) 639-7676 and ckirby@nwfpa.org. Another Washington source is Bart Cox at Surefish, at (206) 284-2686 and bart@surefish.com. Surefish also does training in Oregon and other states.

The first two days of the three-day Seafood HACCP Alliance course can be taken as an internet course through Cornell University. To access the Internet course, go to <http://seafoodhaccp.cornell.edu> to review course structure and requirements. Completion of the internet course does not qualify for the AFDO certificate. To obtain this certificate, you need to attend the third day of the three-day course or a Segment Two One-Day Training Course.

Sanitation Requirements

The federal regulation which requires the implementation of HACCP to ensure seafood safety also requires that each processor have and implement a written sanitation standard operating procedure (SSOP) detailing how the following eight sanitation conditions and practices will be met and monitored.

1. Safety of the water that comes into contact with food or food contact surfaces, or is used in the manufacture of ice.
2. Condition and cleanliness of food contact surfaces, including utensils, gloves and outer garments.
3. Prevention of cross-contamination from unsanitary objects to food, food packaging material and other food contact surfaces, including utensils, gloves and outer garments, and from raw product to cooked product.
4. Maintenance of hand washing, hand sanitizing and toilet facilities.
5. Protection of food, food packaging material, and food contact surfaces from adulteration with lubricants, fuel, pesticides, cleaning compounds, sanitizing agents, condensate and other chemical, physical, and biological contaminants.
6. Proper labeling, storage, and use of toxic compounds.
7. Control of employee health conditions that could result in the microbiological contamination of food, food packaging materials and food contact surfaces.
8. Exclusion of pests from the food plant.

There is not a training requirement for the sanitation monitoring activities mandated by the federal regulation. However, the Seafood HACCP Alliance has developed a one-day course to assist seafood processors in developing the SSOP and setting up the monitoring program.

Appendix D

Common Mistakes in HACCP

Liz Brown, Alaska Sea Grant Marine Advisory Program

Federal and state laws require all processors to conduct a hazard analysis for each of their products and, in the State of Alaska, the hazard analysis must be a written document.

Catcher-sellers do not fit the definition of “processor” under these laws, as no processing of seafood is allowed. Other classes of direct marketers will fall under the requirement if they process, package or handle their products prior to sale to the public. If processing, packaging and handling are done by a third party covered by a Hazard Analysis and Critical Control Point (HACCP) program, the direct-marketer need not duplicate that effort.

If, as result of a hazard analysis, it is determined that a hazard is reasonably likely to occur, a critical control point must be identified and proper monitoring and record-keeping must be set forth in a HACCP plan.

The following are common mistakes in HACCP that may pertain to direct-marketers. The complete set of PDF documents, Common Mistakes in HACCP, for different subjects may be found at the Alaska Sea Grant online bookstore, <http://seagrant.uaf.edu/bookstore>. This information is intended to supplement HACCP training, which is available through the Alaska Sea Grant Marine Advisory Program at <http://uaf.edu/map>.

Occasionally, regulations are changed and they are subject to interpretation by consumers and agencies.

Mistakes Pertaining to Hazard Analysis

Not having a written hazard analysis

The federal regulation says to perform a hazard analysis but does not require a written document. The Alaska regulation requires a written document.

Missing hazard analysis parts

There are three essential parts of a hazard analysis. The *product description* should include the species (using the scientific name will avoid confusion – the FDA “Fish List” of acceptable names is at <http://www.cfsan.fda.gov/~frf/seaintro.html>), form (i.e., frozen, cured, fresh) and the intended consumer. A flow chart should be drawn, based on different parts of the plant, individual machines and the addition of anything that touches the product, including packaging material, ingredients, process water, ice, etc. A *narrative description* of the flow chart should include additional information. It is acceptable to combine products in one hazard analysis only if the hazards, critical control points, critical limits and production methods are identical.

Too many or too few critical control points

The two common mistakes when performing a hazard analysis on your product both arise from ignoring the Hazards and Control Guidance (www.cfsan.fda.gov/~comm/haccp4.html). You may have many monitoring points in your product flow, where the information

may or may not be recorded, but these should not be defined as critical control points. Go through the Hazards and Control Guidance and note which hazards are associated with your product in both the species list and the product form list, then address those hazards. In every product form, metal inclusion and allergens are listed as potential hazards. Your hazard analysis should mention both of these, even if only to explain why they are not likely to occur.

Combining different processes of the same species in the same hazard analysis

It is permissible to combine products in the same hazard analysis if the hazards and control methods are identical. However, you will want a combination like this only if the process is similar enough to be entered in the same flow chart. For instance, cod fillets and headed and gutted cod are processed in the same fashion, with one step added for fillets, while salmon fillets and salmon roe are processed very differently.

Not updating your hazard analysis

The regulation requires you to reassess your hazard analysis after any substantial change, such as new equipment or a new recipe, to your plant or process. If you have a HACCP plan, you are required to reassess it every year and after such changes.

Not signing the document

If you have a HACCP plan, it must be signed and dated by someone with authority to represent the firm, who is generally the plant manager or somebody higher in the corporate structure. The signature and date will show that the plan has been reassessed annually, as required.

Not reviewing and signing the records

If you have a HACCP plan, the records must be reviewed and signed within a week by a HACCP-trained (or equivalently knowledgeable) person. You should review the records more quickly, however, because if there is a problem, you will want to discover it as soon as possible.

Mistakes Pertaining to Agency Jurisdictions or Requirements

Thinking you are required to have a HACCP plan

You are required to perform a hazard analysis on each of your different species and processes. You need a HACCP plan only if your hazard analysis reveals hazards that are reasonably likely to occur. A hazard analysis is not the same thing as a HACCP plan.

Thinking you need a certificate of training

Attending HACCP training is one way to become familiar with HACCP information. You do not need a certificate confirming that you have attended training, but you *do* need to demonstrate to your inspector that you understand the concepts of HACCP. There is one exception: if your company is a participant in the U.S. Department of Commerce HACCP/ Quality Management Program, you will

be required to have someone in the facility who has successfully completed HACCP training.

Not having a HACCP-trained — or equivalent — person reviewing your HACCP records

The person who reviews the HACCP records is required to be knowledgeable about HACCP, whether through training or self-taught, as previously described. HACCP records must be reviewed within one week of the day that the records are made. Unless your vessel is heading back to port that often, you need someone on board who understands HACCP.

Not reading the regulation

Reading the six pages of regulations will answer many of your questions. The regulations are in 21 CFR parts 123.6-12, which can be found at www.cfsan.fda.gov/~lrd/searule3.html, along with the rest of the Procedures for the Safe and Sanitary Processing and Importing of Fish and Fishery Products.

Not reading the Good Manufacturing Practices

These sanitation guides are 21 CFR part 110, which can be found at www.cfsan.fda.gov/~lrd/cfr110.html.

Being confused about the agencies who deal with seafood HACCP

- FDA — The Food and Drug Administration resides under the U.S. Department of Health and Human Services, a federal agency. The FDA is authorized to enforce the federal Food, Drug and Cosmetic Act, which regulates the production and distribution of seafood. The FDA's mandatory seafood HACCP rule is about seafood safety only.
- USDA — The U.S. Department of Agriculture, another federal agency, is responsible for inspecting meat (but not seafood products), as authorized by the Federal Meat Inspection Act. There is a separate HACCP program for meat.
- NOAA Fisheries — The National Oceanic and Atmospheric Administration is within the U.S. Department of Commerce. Formerly called the National Marine Fisheries Service, NOAA Fisheries provides a fee-for-service seafood inspection program that includes economic integrity, quality and wholesomeness along with seafood safety in its voluntary seafood HACCP program.
- EPA — The U.S. Environmental Protection Agency is concerned only with HACCP in that it sets tolerance levels for certain food contaminants.
- ADEC — the Alaska Department of Environmental Conservation has adopted the federal HACCP rule as well as imposing several rules unique to Alaska. They issue seafood processing operating permits, enforce regulations, and approve any new processes and technology. Safety inspection agencies in other states perform these functions.

Mistakes Concerning Sanitation Standard Operating Procedures (SSOP)

Not having a written SSOP

The federal regulation requires a written sanitation plan while the Alaska regulation says you to have a plan. Neither one says you *shall* have a *written* plan (note the difference between "should" and "shall") but it's pretty clear that you should.

Not keeping sanitation records

Both federal and Alaska regulations require that you keep sanitation monitoring records.

Not reading the regulation

You can find SSOP requirements at www.cfsan.fda.gov/~lrd/searule3.html — it's CFR 21, Part 123, Section 11

Ignoring additional aspects of water safety

It's easy to claim that your process water is safe if you have a valid disinfection program but don't forget that you'll need to check periodically (and keep records) that no cross-connections have arisen and that you have adequate back-flow prevention devices where necessary.

Ignoring your SSOP

The whole point of having a sanitation plan is to help make sure your plant gets cleaned to your standards. Your SSOP is a method for expressing your intentions to your employees and for them to respond to you. If the plan doesn't match the procedures in the plant, or the records are grudgingly kept only because they are required, it's a waste of time.

Not updating

Your SSOP should reflect what you actually do in the plant. You should have the person who is in charge of cleaning go through the SSOP periodically to check that they are actually doing what is in the plan, which includes keeping current the brands and instructions of cleaning chemicals in use.

Not including the eight points

A typical sanitation plan is a list of equipment and areas to help your cleaning crew be efficient. This would address the second of the eight sanitation points. Your sanitation plan also needs to address the other seven points.

- (1) Safety of the water that comes into contact with food or food contact surfaces or is used in the manufacture of ice;
- (2) Condition and cleanliness of food contact surfaces, including utensils, gloves and outer garments;
- (3) Prevention of cross-contamination from insanitary objects to food, food packaging material and other food contact surfaces, including utensils, gloves and outer garments, and from raw product to cooked product;
- (4) Maintenance of hand-washing, hand-sanitizing and toilet facilities;
- (5) Protection of food, food packaging material and food contact surfaces from adulteration with lubricants, fuel, pesticides, cleaning compounds, sanitizing agents, condensate and other chemical, physical and biological contaminants;
- (6) Proper labeling, storage and use of toxic compounds;
- (7) Control of employee health conditions that could result in the microbiological contamination of food, food packaging materials and food contact surfaces; and
- (8) Exclusion of pests from the food plant.

Appendix E

Salmon Roe

Terry Johnson, Alaska Sea Grant Marine Advisory Program

More fishermen are looking into the prospects of separately extracting and selling what often is the highest value component of their catch — the eggs. Salmon roe values remained relatively stable during times of declining fish prices and new markets internationally are developing.

Salmon roe may be processed into either of two high-value food products. One is *ikura*, or salmon caviar, which is lightly-salted individual eggs. The other is *sujiko*, or roe in the intact skeins. *Ikura* is roughly twice as valuable per pound as *sujiko* but is made with very mature large eggs, and requires more expensive and demanding processing. Several steps are involved, including brining and rubbing on specially-sized screens to separate the eggs from the connecting tissue. The best *ikura* traditionally is made with chum eggs, but quality eggs of any of the five species can be used. Much of the *ikura* currently produced in Alaska comes from terminal area fisheries and hatchery cost-recovery fish because of the ideal state of maturity. However, the bulk of the total salmon catch produces roe of a quality or state of maturity not suitable to *ikura* production, so most roe goes into *sujiko*.

Little *ikura* or *sujiko* is sold in domestic markets. Most *sujiko* and much of the chum *ikura* goes to Japan and nearly all the rest to Europe, Russia and Israel. Specifications, packaging and marketing are very specific to the demands of those markets. Immigrant communities inside the U.S. — particularly Japanese, Jewish and Russian, consume small but growing amounts of salmon caviar.

Bait

A third roe product is fishing bait. Several companies buy roe and process it for use by trout, salmon and steelhead anglers. Bait processors pay relatively low prices for “green” (unprocessed) roe but will take lower quality eggs than processors who make *ikura* or *sujiko*. Bait processing is something that individual fishermen can do on their own, without concerns about processing permits and other regulations that pertain to human food products. However, the bait markets generally are well-supplied so a direct marketer is advised to research the demand and the price structure for bait before making the commitment to bait processing.

Caviar Considerations

Processing of caviar and even *sujiko* is not practical for most direct-marketers because of the need for a permitted processing facility with specialized equipment, and for extensive training and experience to make a product acceptable to the market. Some fishermen with larger vessels — for example, purse seiners with freezers — could do processing on board if they got the equipment and a processing permit.

Most fishermen currently dealing in eggs are selling green roe, extracted from the fish, to processors. For trollers and those gillnetters who already dress their fish it is a relatively easy step to remove the roe and sell it separately. For other salmon fishermen the shift requires some planning and additional effort. Following are some considerations:

- DEC considers roe extraction to be processing, and requires a processing permit.

- You have to do something with the carcasses. It is a violation of Alaska’s wanton waste law to remove the roe and dump the carcasses. Some processors will not purchase fish from which the roe has been removed, especially mature chums and humpies. Some buyers may take low grade carcasses for use in inexpensive smoked products, fertilizer, or garden mulch. The law doesn’t require use for human food, only for something. It is important to establish a market or use for the rest of the fish before you attempt to market the roe.
- Quality control is essential. Green roe buyers pay based on the grading report on the roe, and pay nothing for roe that is poor quality. Temperature and time out of the water are critical parameters, as is cleanliness of containers. Buyers generally won’t take roe that’s more than two or three days old. Roe flies pretty well and some fishermen successfully send roe to processors from remote landing ports, but they have to maintain strict temperature control.
- The demand for green roe is limited, and only a few companies process it, so it is essential to establish a relationship with a processor before starting to fish. The processor will issue strict guidelines for handling and shipping the roe, and the fisherman’s financial success hinges on strict adherence to those guidelines.

Quality Tips

While the specifics of handling, packing and shipping will have to come from the buyer, following are some general tips about handling salmon roe.

- Fish should be bled when they come on board and dressed as soon as possible. Be careful to avoid cutting into the guts while dressing the fish and removing the roe.
- Wash the roe with clean seawater or a brine solution. Green roe should never come into contact with fresh water.
- Store roe in specified five-gallon plastic buckets kept in slush ice. When full, seal the buckets. Flake ice and RSW are not suitable. Keep an insulated tote of slush for storing the roe buckets.
- The fisherman should sort the roes by species and keep them separated. Dark or soft roe should be discarded and never allowed to mix with good roe.

Caviar processors generally only take roe from fish harvested in terminal fisheries, not from outer coasts where fish are feeding or migrating on to distant spawning districts, because roe likely is too immature. On the other hand, some in-river fisheries produce roe that is already separated and has hard shells, which also is undesirable.

If you’re flying out roe buckets, stay in the airport until you see them put into a cooler (not a freezer). If temperature increases at any point prior to processing, quality is seriously degraded.

Carefully sanitize buckets with the prescribed solution, and be alert to possible sources of contamination. Roe can pick up *salmonella*, *listeria*, and *E. coli* bacteria from the environment or from the fish guts, and can cause serious illness.

(Thanks to Sissy Babich, Norther Keta Caviar, for assistance with this content. – Ed)

Appendix F

Refrigeration Considerations

Brian Paust, Professor Emeritus, Alaska Sea Grant Marine Advisory Program

Pre-chilling Systems

The systems used for chilling fresh seafood prior to air shipment include chilling rooms, cold storage blast freezers, slush ice, flake ice, chilled sea water (CSW) tanks and others. These systems can be classified as dry chilling (chilling rooms, vans and blast freezers) and liquid chilling (slush ice and CSW). Each has its advantages and disadvantages.

Dry Chilling

Dry chilling methods consist of putting the product in a cold room, refrigerated van, blast freezer or similar system until the temperature is reduced to 32° F or slightly lower. This type of chilling has several disadvantages that may reduce product quality. Cooling is slow because air has a low heat transfer coefficient. Air circulation in vans and blast freezers can dry unprotected product surfaces - causing wet loss and dehydration. Using blast freezers for product cooling is discouraged because partial freezing can occur, damaging flesh texture. For the small shipper, these systems are expensive since they require mechanical refrigeration and adequate space for the cooling equipment. However, dry chilling can be effective if the product is properly protected and carefully monitored.

Liquid Chilling

Liquid systems are more suitable for chilling fresh seafood. Slush ice consists of a container of ice and water in which the product is immersed until the temperature is reduced to 32° F or slightly lower. A variation to this method involves simply placing product in a melting layer of ice.

A CSW system uses an air pump and air distribution grid to agitate the slush ice mixture for rapid chilling. Chilling is much faster and more uniform. Liquid chilling systems can be set up anywhere and do not require expensive equipment, but do require a source of ice.

A simple slush ice system can be prepared using a fish tote, water and ice. Sufficient ice should be added to initially attain the temperature of 32° F and maintain this temperature during the chilling process. Product should be added in increments to prevent crushing and to properly distribute product in the chilling liquid. Chilling will occur rapidly, usually within 30 minutes, depending on the size of the items to be chilled and volume of product. Internal product temperatures should be taken to assure the desired temperature is reached.

A refrigerated sea water (RSW) system uses sea water with a mechanical refrigeration unit to keep it cold. Most RSW systems have a shell- and-tube heat exchanger in which refrigerant circulates through the tubes and sea water circulates around the tubes. RSW eliminates the need for ice and a lower storage temperature can be used. With adequate capacity, the same refrigeration system can be used for brine immersion freezing.

A disadvantage of the liquid chilling is that the water must be drained from the product before it is packed to prevent extra weight and the presence of unwanted water. Also, unless the chilled water is replaced often and containers frequently sanitized, liquid can introduce bacteria into product, particularly into the body cavity of cut fish, accelerating spoilage. It is recommended that chilled sea water be used for whole fish, not for fish that are dressed or partially dressed.

With the exception of a good high-capacity RSW system, these liquid chilling systems are not capable of commercial quality freezing. Only high capacity blast and plate freezers should be used for seafood products not intended for further processing. Equipment such as home freezers and walk-in freezers are designed to only maintain in a frozen state products that have already been frozen. Their freezing capacity is very low and even within that capacity, the rate of freezing is so slow that ice crystals form within the tissue cells, causing mushy texture and drip loss on thawing.

Appendix G

Box Insulation Values and Gel Pack Effectiveness

Brian Paust, Professor Emeritus, Alaska Sea Grant Marine Advisory Program

Three factors influence temperature control during transit. The first is ambient conditions, including air temperature, contact surface temperature and degree of insulation (direct heat input from the sun). The second is the insulation level of the container. The third is the heat absorbing value of gel packs.

What is the insulation or R value of wetlock and other types of boxes? How useful are gel packs in keeping seafood cold? In tests, shipping containers were evaluated for their insulation rating and gel packs for effectiveness.

Box Insulation Values

In a laboratory test 50 pounds of salmon, prechilled to 32° F, were loaded into wetlock boxes - one uninsulated and the other insulated with a 3/8-inch polystyrene insert. The boxes contained no gel packs and were held in a 60° F environment. The temperature of the fish in the uninsulated wetlock box rose to 40° F in six hours. In the insulated box, the temperature rose to 40° F in 12 hours. Adding insulation doubled the maximum transit time for the product. With the data from these experiments, R values were calculated. Similar tests were done on polystyrene boxes ranging from 25-pound to 125-pound capacity.

Adding Styrofoam or other insulating materials to any container is very effective in maintaining temperature. Generally, the polystyrene boxes have better insulation characteristics than wetlock. The thicker the wall of the polystyrene box the higher the R value. Keep in mind that effective alternatives to the use of polystyrene are now available, and polystyrene is falling out of favor in many places due to environmental concerns. Check with your box distributor.

Gel Pack Effectiveness

The positive effect of gel packs has also been tested. The test was similar to the box insulation test, except that 1.5-pound gel packs were placed in the top and bottom of each container. The gel packs were effective in intercepting heat and slowing the warming of the product. In about nine hours, the product warmed from 32° F to 40° F with gel packs in the uninsulated wetlock. This was a 50 percent increase in potential transit time when compared to the box without gel packs. The temperature inside the insulated wetlock with gel packs rose to 40° F in a little less than 21 hours - a 75 percent increase in storage time. Whenever possible, favor the placement of gel packs in the top portion of containers when using insulated containers.

Conclusion

These studies indicate that the general use of insulation and gel packs greatly extend the time seafood can be kept at acceptable temperatures. The use of high quality packaging makes possible the shipment of the highest quality seafood to discerning markets worldwide.

(See the chapter on packaging and shipping in this manual for more on insulation. – Ed.)

Appendix H

Processing and Storage Costs

In some cases direct marketers can do everything necessary to get their product directly from the boat to the buyer. Usually they must pay to have some of the work done for them, and they must use services such as cold storage to keep the product during part of the process. Furthermore, even if the fisherman does all the work, his or her labor has a value that should be included in the profit/loss calculations.

Following is a sample of the common services involved in direct marketing, and sample rates charged for providing those services, derived from the tariff of a major cold storage company. Keep in mind that these rates have been charged by a large company that deals in large volumes and has good economies of scale. Actual charges at local facilities may be significantly higher.

Processing

all rates based on finished product weights

Salmon and Sablefish	\$/lb.
Western cut dress and freeze	.26
Wash and freeze H&G	.105
Western dress/layer ice in totes	.17
Fresh packing in boxes or totes	.11
Fresh heading	.025
Domestic pack (frozen)	.085
Export pack (frozen)	.12
Excess grading	.015-.03
IQF fresh salmon fillets and tote	.18
Frozen salmon heading	.035
Un-bagging frozen salmon	.018
Packing in 10# (fillet only)	.18
By-product disposal	.03
Fresh Halibut	
Heading	.05
Wash and freeze	.075
Grade	.12
Packing in totes or boxes	.085
Van unloading	.03

Frozen Halibut	
Trim, grade, glaze and tote	.08-.10
Pack H&G (random weight)	.05
Re-glaze and tote	.04-.055
Re-grade	.025
Trim, glaze and pack	.11-.12
Layer ice in totes	.035
Poke ice	.02

Other Services	
Fresh bottomfish fillets and tote	.37
Apply labels	.16 each
Print labels	.16 each
Van cleaning, de-icing	hourly @ \$36/hr
Inspection and glaze testing	hourly @ \$73

Overtime is 1.5 times the regular rate. Prices do not include bags, cartons, liners, film or other materials. Additional charges for orders less than 5,000 lbs; minimum charge of \$55.

Warehousing, Storage and Handling

Rates based on gross CWT (hundredweight)

	Handling	Storage per month
Salmon, halibut,sablefish		
Toted	\$2.00	\$1.23
Boxed – under 100 lb	2.50	1.29
Boxed – over 100 lb	2.40	1.26
Shellfish, including crab		
Bulk pack - over 40 lb	1.92	1.42
Finished pack < 40 lb	2.03	1.60
Whole cooked	2.08	1.88
IQF steaks, fillets, portions	1.87	1.28
IQF shrimp or scallops	1.90	1.35
Block, shatterpack bait, roe	.97	.89
Across dock rates		
Sorted, palletized, unload and load		2.00
Sorted, palletized, unload or load to van crew		2.82
Van crew offload to van crew load		3.64
Minimum charge		47.00

Appendix I

Alaska Seafood Marketing Institute Recommended Statewide Quality Specifications for Alaska Fresh and Frozen Wild Salmon

Part I: Description

Section 1: Product Definition

Alaska Fresh or Frozen Wild Salmon is the food prepared from only the species of salmon listed in Section 2; these species may be sold fresh or frozen, and shall be reasonably protected from oxidation and/or dehydration.

Section 2: Species

The Species which can be designated Alaska Wild Salmon are:

Species	Common or Usual Name(s)
<i>Oncorhynchus tshawytscha</i>	Chinook, King
<i>Oncorhynchus nerka</i>	Red, Sockeye
<i>Oncorhynchus kisutch</i>	Coho, Cohoe, Silver
<i>Oncorhynchus gorbuscha</i>	Pink
<i>Oncorhynchus keta</i>	Keta, Chum

Section 3: Styles of Preparation

A. Dressed, Head-off: The belly of the salmon is split from the anus to approximately one inch before the throat (isthmus of the nape); the split may also continue through the throat. The viscera and kidney (backblood) are removed leaving the cavity free of blood and pieces of membrane. The head is removed leaving the nape cut free of gill. Water used during processing or rinsing shall be sanitized in accordance with Alaska Department of Environmental Conservation requirements, 18 AAC 34.080(c).

B. Dressed Head-on: The belly of the salmon is split from the anus to approximately one inch before the throat (isthmus of the nape); the split may also continue through the throat. The viscera and kidney (backblood) are removed leaving the cavity free of blood and pieces of membrane. The gills may be removed; the head and gill cover remain intact. Water used during processing or rinsing shall be sanitized in accordance with Alaska Department of Environmental Conservation requirements, 18 AAC 34.080(c).

C. Whole (Round) Fish: Water used during processing or rinsing shall be sanitized in accordance with Alaska Department of Environmental Conservation requirements, 18 AAC 34.080(c).

D. Other: As defined by a buyer/seller relationship. This category may include a variety of styles and cleaning/processing techniques depending upon the form in which the product is marketed. Water used during processing or rinsing shall be sanitized in accordance with Alaska Department of Environmental Conservation requirements, 18 AAC 34.080(c).

Part II: Recommended Quality Grades and Characteristics

Section 1: Quality Grades

Salmon are categorized in the following grades:

Premium Grade

Grade A

Grade B

Grade C

Section 2: Quality Characteristics

- A. All salmon will exhibit the following characteristics in order to meet the **Premium Grade**.
- HANDLING:** All Premium fish will be bled and chilled upon harvest. There will be no skin or internal cuts or tears. There will be no punctures or bruises. Meat will be resilient when subjected to finger pressure. Scale loss will not exceed 15%. Scale adherence will be uniform. Some scale loss due to method of harvest handling can be expected.
 - ODOR:** Odor will be sea-fresh. There will be no off-odor.
 - EYES:** Eyes will be normal in appearance, bright and clear.
 - GILLS:** Gills will be bright red, and will smell sea-fresh and odorless.
 - SKIN:** Skin color will be characteristic of fresh fish that is typical of the species, sexual maturity, district of harvest, and time of year it was harvested. (Refer to ASMI Skin Color Evaluation Guide for Pacific Salmon). Skin will be bright, shiny, and not hold wrinkles when bending fish slightly. There will be no skin indentations, perforations or scars. Slime will be clear. There will be no tail damage or fin loss.
 - BELLY CAVITY:** Color will be bright and natural. There will be no belly burn or protruding ribs. The belly will be free of viscera and the collar free of gill membrane.
 - MEAT COLOR:** Meat color will be characteristic of fish that is typical of the species, district of harvest, and time of year harvested. (Refer to ASMI Meat Color Guide for Wild Alaska Salmon).
 - PHYSICAL SHAPE:** Physical shape will be characteristic of the species at its stage of sexual maturity.
Deviations from the above characteristics are cause to downgrade salmon from **Premium Grade**.
- Grade A.** Same as Premium Grade with the following exceptions: Bleeding will be optional. Scars may be present if less than 1" and well healed. There may be one skin cut less than 1". Scale loss will not exceed 25%. There may be up to 2 protruding ribs.
 - Grade B.** Same as Grade A with the following exceptions: Smell may be neutral. Eyes may be dull, but not milky or cloudy. There may be slight to moderate indentations, scars up to 1.5" in size, and one skin cut up to 1.5". Scale loss may not exceed 40%. There can be no tail damage and fin loss will not exceed 50%. There may be slight fading of belly lining natural color and slight discoloration. There may be slight belly burn with up to

6 protruding ribs. There may be internal cuts not to exceed 0.5" total. There may be no viscera, but traces of blood acceptable.

3. **Grade C.** Same as Grade B with the following exceptions: There may be slight odor, eyes milky or cloudy, and gills pink to buff. Slime may be dull and copious. Scars and punctures will be allowed. Cuts and scale loss may be more than Grade B. Tail damage may be present and fin loss may be more than Grade B. Belly cavity discoloration may be more than Grade B. Bruising, belly burn, and cuts, may be more than Grade B. Viscera traces and blood more than Grade B.

B. Any, or a combination of the following defects are cause to downgrade a frozen salmon from Premium, depending upon the severity:

1. **Improper handling:** A salmon which has been frozen in a misshapen or severely deformed position or one which has experienced any tail damage. This does not apply to minor changes in the symmetry which may occur during freezing.
2. **Natural defects and improper workmanship:** Any of the defects listed in the fresh fish grading criteria which are determined, upon nondestructive examination, to exist in frozen fish.
3. **Dehydration/freezer burn:** A fish which has readily discernible dehydration present on the nape and/or in the belly cavity that is not adequately trimmed.
4. **Scale loss:** A salmon exhibiting over 15% scale loss, if other defective conditions are apparent

**Typical Weight Grades for Wild Alaska Salmon
(in pounds)**

Chinook (King)	4 to 7	7 to 11	11 to 18	18 and up	
Chum	4 to 6	6 to 9	9 and up	or 9 to 12	12 and up
Coho (Silver)	2 to 4	4 to 6	6 to 9	9 and up	
Pink	2 to 3	3 to 5	5 and up	or 5 to 7	7 and up
Sockeye (Red)	2 to 4	4 to 6	6 to 9		

Alaska Seafood Marketing Institute Recommended Quality Grades for Wild Alaska Salmon

Characteristics Handling	Premium Grade	Grade A	Grade B	Grade C
bled	yes	optional	not applicable	not applicable
chilled	yes	yes	not applicable	not applicable
skin cuts	no cuts	one cut less than 1"	one cut up to 1.5"	more than grade B
internal cuts	no cuts or tears	no cuts or tears	not more than 0.5" total length of cuts and tears	more than grade B
punctures	no punctures	no punctures	no punctures	punctures allowed
bruising	no bruises	no bruises	slight bruising acceptable	more than grade B
scale loss	not to exceed 15% loss	not to exceed 25% loss	not to exceed 40% loss	more than grade B
ODOR	fresh smell	fresh smell	neutral	slight, not offensive
EYES	bright, clear	bright, clear	dull, not milky or cloudy	milky or cloudy
GILLS	bright red	red	pink	pink to buff
SKIN				
color**	**	**	**	**
slime	clear	clear	cloudy	dull and copious
net marks	no indentations or skin perforations; no broken backbones	no indentations or skin perforations; no broken backbones	slight to moderate indentations	may have moderate indentations; skin may be perforated
scars	none	less than 1", well healed	up to 1.5", well healed	scars permitted
tail/fins	no tail damage or fin loss	no tail damage or fin loss	no tail damage; fin loss to 50%	more than grade B
BELLY CAVITY				
color	bright natural color	bright natural color	slight fading of natural color; slight discoloration acceptable	more than grade B
belly burn	none; no protruding ribs	none; up to 2 protruding ribs acceptable	slight belly burn, up to 6 protruding ribs	more than grade B
cleaning	thorough; no viscera of any kind; collar trimmed,	thorough; no viscera of any kind, collar trimmed	thorough; no viscera of any kind; traces of blood ok	more than grade B
MEAT COLOR*	*	*	*	*

** **Skin Color:** Wild Alaska salmon skin color is variable depending on species, location of harvest, sexual maturity, and is not correlated with grades. Users are referred to the ASMI Color Evaluation Guide for Pacific Salmon.

* **Meat color:** Meat color is variable depending on species, location of harvest, sexual maturity and is not correlated with grades. Chinook salmon have both red and white meat. Coho salmon meat color ranges from pinkish-red to pale pink. Sockeye salmon meat color is red. Chum and Pink salmon users are referred to the ASMI Meat Color Guide for Wild Alaska Chum Salmon, and Meat Color Guide for Wild Alaska Pink Salmon.

Appendix J

Permits, Licenses, Bonds, Reporting, and Taxes Required for Alaska Seafood Direct Marketers and Small-Scale Processors

Sunny Rice, Alaska Sea Grant Marine Advisory Program

Disclaimer: Requirements and regulations pertaining to seafood processing, handling and sales are complicated and subject to change, due to legislation or regulatory interpretation. The agencies regulating the industry use different terms specific to their regulatory requirements. Sometimes similar terms can have different meanings for different agencies. Terms in common use—such as “direct marketing”—may have specific regulatory meaning that differs from common use.

Note: This appendix does not address the processing and sale of “shellfish,” such as clams, oysters, geoducks and mussels. Some of the regulations covered herein apply, but there is a different set of shellfish-related sanitation and processing regulations. However, “shellfish” in this context does not refer to crabs and shrimp, which are covered by the regulatory provisions outlined in this appendix.

This appendix is a summary of pertinent Alaska and federal requirements as of spring 2007. Use it for general informational purposes only. Consult with each of the relevant agencies for detailed and up-to-date instructions before engaging in seafood processing or sales activities.

While the regulating agencies have attempted to simplify the permitting process for many activities, you may still have questions as you complete the applications. It will save considerable time if you **contact the agencies early in the process with questions**. Establishing a good working relationship with the agency will help you more easily resolve any problems that may arise later in the process.

Once you do anything with a fish other than deliver it to a tender or processor's dock, you are in the food business, and food is a highly regulated industry. Direct marketers are required to comply with a number of license, tax, inspection, and reporting requirements depending on the precise nature of their operation.

Each state has its own agencies and requirements; in Alaska most activities will require that you comply with regulations of three main entities:

1. The Alaska Department of Fish and Game (ADF&G), which regulates the take of fisheries resources, and issues Fisheries Business licenses.
2. The Department of Environmental Conservation (DEC), which ensures the safety of food products.
3. The Department of Revenue (DOR), which collects fisheries business and other taxes.

You may also need to work with the following agencies:

- National Marine Fisheries Service, if product comes from a federally-managed fishery. A Federal Processor Permit, endorsed for either Shoreside Processor or Stationary Floating Processor, is required if you do any processing.
- Division of Measurement Standards. Scales used to weigh product must be certified.
- Local city governments for local vendors licenses, regulations, and city sales taxes if you sell within a local municipal jurisdiction.
- U.S. Food and Drug Administration (FDA) for:
 - mandatory one-time registration as a food processing facility
 - random processor inspection for sanitation, HACCP compliance
 - nutritional labeling on any retail size packaging that may be used
- U.S. Department of Commerce in some cases for services under voluntary inspection and certification programs.

What is “processing”?

Both DEC and DOR make an important distinction between operations that **process** seafood products and those that do not.

By DEC definition, **you are a processor if you:**

1. Head or butcher product
2. Recover roe
3. Shuck
4. Pickle
5. Cook in water/steam
6. Hot or cold smoke
7. Salt/Brine
8. Dry
9. Do mixing/formulating
10. Freeze
11. Make surimi
12. Create retorted thermal packaging

DEC also considers it to be processing if you package and transport product from your boat to another location.

The definition of processing does not include: gutting, gilling, sliming, icing, or decapitating shrimp if performed on a vessel while on the fishing grounds.

Complying with agency requirements

Your first step in determining which permits, licenses, reports, bonds and taxes you will be required to complete is to determine which of the following kinds of operations you will be running. Following are classes of operation, based on state agency criteria:

- A. **Catcher/Processor** – Catches and processes and sells processed seafood products, and includes:
1. **Direct Marketer**, 65 feet or less in length - May only process own fish.
 2. **Catcher/Floating Processor** (>65 feet) – Floating processors can buy or custom process, but Catcher/Processors cannot buy fish to process and sell, or custom process.
 3. **Roe Recovery Only** - Recovers roe for sale as a product for human consumption. **Note** - Under DEC interpretation, salmon fishermen such as trollers who gut their catch and sell the roe after it has been removed from the fish, even to the same processor who buys the fish, are engaged in “roe recovery” and need to be licensed as such.
- B. **Catcher/Seller** – Sells his or her own catch as unprocessed and unpackaged fishery resources in Alaska at the dock directly to the consumer, or to food establishments that have a DEC Seafood Processing Waiver. If you sell to food establishments with a DEC Seafood Processing Waiver, they must pick up the product off the boat or you must have a DEC permit to transport the product to the establishment. Catcher/Sellers can also sell product for use as bait.
- C. **Exporter** – (“Export” means transporting product out of Alaska to another state or country) Includes:
1. **Catcher/Exporter** -Catches and transports unprocessed fish out of the state to a processing facility under the regulatory oversight of a governmental health regulatory agency.
 2. **Buyer/Exporter** - Buys unprocessed seafood product from harvesters for transport out of the state to processing facilities under the regulatory oversight of a governmental health agency.
- D. **Processor** - Processes or places seafood products in commerce and includes:
1. Inshore Floating Stationary Processors
 2. Floating Processors greater than 65’ in length (>65’). A vessel of less than 65’ that buys and process on board can also be licensed as a processor if it meets all the DEC requirements.
 3. Shore-based Processors
 4. Canneries
 5. Selling live (Dept. of Revenue considers lives sales to be “processing”)
- E. **EEZ Only** – Processes only in the federal Exclusive Economic Zone (between 3 and 200 miles from shore).

- F. **Waivered Buyers** – Markets, restaurants, groceries or lodges who have a DEC processing waiver. May buy up to 500 lbs./week from catcher/sellers for sale or use in their establishment.
- G. **Independent Buyer** – Buys from fishermen to sell to licensed processors or exporters who have the product processed in a facility under the regulatory oversight of a governmental health agency.
- H. **Transporter** – Transports and sells salmon, herring or Pacific cod, and legally taken by-catch species in those fisheries, as an agent of the fishermen who caught the fish. They do not buy or process fish.

Your operation may fall into more than one of these categories. If you are unsure which permits are required of you, contact the agencies directly. Contact information is at the end of this appendix. Some consultants provide assistance in securing seafood-related permits, licenses, bonds, etc., and can be located in trade publication advertisements and in the *Marine Yellow Pages* under “consultants.”

The scope of this *Direct Marketing Manual* covers only these categories:

- Catcher/Floating Processor
- Direct Marketer
- Catcher/Exporter
- Roe Recovery
- Catcher/Seller.

Category A - State of Alaska Requirements for Catcher/Processors

1. **Alaska Direct Marketing Fisheries Business License Application and Intent to Operate.** This application covers both the Department of Revenue and Department of Fish & Game license requirements for individual fishermen who process, export, or have their own catch custom processed. To qualify for this license you must:

- Hold a limited entry or interim use permit, or IFQ quota shares, and
- Own or lease a commercial fishing vessel not exceeding 65’ in length.

If you don’t meet these requirements, or if you purchase catch from other fishermen, you should apply to these agencies with the standard Alaska Fisheries Business License Application and Intent to Operate, available at www.cf.adfg.state.ak.us/geninfo/permits/intent/sfpe_app.pdf.

The Department of Revenue charges a \$25 license fee for both the Direct Marketing Fisheries Business License and the standard Alaska Fisheries Business License.

Important Change in 2007: *The joint “Direct Marketing” and “Alaska Seafood Processor and Exporter License and Permit Application” no longer exists. Direct marketers need to apply to the Department of Environmental Conservation separately from the Department of Fish & Game and Department of Revenue application. You can find the DEC application at www.dec.state.ak.us/eh/forms.htm.*

2. Alaska Commercial Operators Annual Report (COAR)

A Commercial Operator’s Annual Report, accurately and completely summarizing your activities for the past year, must be submitted to ADFG no later than April 1 of each year. Forms are available online or at your local office. Most who file an ADFG Intent to Operate must complete this form, whether you engaged in the proposed activities or not. Catcher/Sellers are not required to file a COAR.

3. Fish Tickets

ADF&G also requires that fish tickets be completed for each landing of fish. You apply for a number code plate and blank fish tickets with your Intent to Operate or Direct Marketing Fisheries Business License application. You may then either purchase your own stamping machine or arrange with your local ADFG office to stamp your completed tickets in their office after your trip. Completed tickets generally must be submitted within seven days to the local ADFG office. Operators in some fisheries have additional reporting requirements and may be required to report more frequently.

4. Fisheries Business Tax Return

The Alaska Department of Revenue (DOR) is responsible for collecting taxes on fishery products. A Fisheries Business Return must be filed every year by March 31. When you sell your fish to a processor, these taxes normally are paid by that company. In most cases, you become responsible for those taxes if you direct marketing your own product. As a direct marketer, you may face one or more of five different taxes:

- a. Fisheries Business Tax must be paid by the first processor of a fishery product. If the product is not processed, but is exported from the state, the exporter must pay the fisheries business tax. As a direct marketer, the first processor or exporter is likely to be you. If you have your product custom processed, you are responsible for paying the tax. If you sell your catch to a processor, even with the intention of buying some of it back later, the processor is liable for the tax.

Current rates are:

Floating processor (including catcher/processor)	5.0%
Shore-based processor.....	3.0%
Canned Salmon.....	4.5%
Direct Marketer	3.0%

Rates are lower for “developing species.” Contact the DOR for a current list of these species.

- b. Landing Tax is paid on fisheries products caught and processed outside Alaska state waters (three mile limit) and first landed or transferred inside Alaska or within state waters. The assessment rate is 3% based on the unprocessed value.
- c. Salmon Enhancement Tax is paid by fishermen where regional aquaculture associations exist. The tax is 1 to 3% depending on the region’s self-assessment. Licensed buyers must collect this tax and remit it to the state. Salmon Enhancement taxes are listed on fish tickets. This tax is reported and remitted monthly to the

DOR. Catcher/Sellers and fishermen operating under a Direct Marketing Fisheries Business License selling to unlicensed buyers must pay this tax directly to DOR but are allowed to remit yearly. Contact DOR for more information.

- d. Seafood Marketing Assessment is paid by processors handling more than \$50,000 worth of product annually. Processors must pay .3% of the ex-vessel value of all seafood processed to fund the activities of ASMI.
- e. If you are selling your product within the limits of a city or state that has a local sales tax, you will be required to collect this tax on all sales of your product. Contact the city or local government for information concerning reporting and payment requirements.

Note: The Department of Revenue has a “Frequently Asked Questions” page (www.tax.state.ak.us/programs/fisheries/faq.asp) that you might find helpful in determining your tax and bonding requirements.

5. Tax and Other Surety Bonds

All people, firms, or corporations that process fish in Alaska, or export unprocessed product from Alaska, must secure their estimated Fisheries Business Tax liability in advance. Catcher/Processors and Catcher/Exporters are not required to prepay or post bond if their estimated tax liability is \$500 or less.

You may prepay your estimated tax or secure your credit by submitting:

- A Letter of Credit in the amount of the estimated tax,
- A Time Certificate of Deposit in the amount of the estimated tax,
- A Fisheries Tax Bond equal to twice the estimated tax, or
- Verification of lienable real property valued at a sum equal to at least three times the estimated tax liability.

Surety bonding is required if you purchase fisheries resources from other fishermen or if you have an Unemployment Insurance Contribution obligation for any of your employees. Operations that process more than 30,000 lbs. of raw product annually are required to post a \$10,000 bond. Those that process less than 30,000 lbs. annually are required to post a \$2,000 bond. You may secure your credit for this bond in any of the ways listed above.

6. ADEC Seafood Processors Permit Application

This application covers requirements of the Alaska Department of Environmental Conservation for processors.

Annual DEC fees levied on processors are based on the type and amount of processing being permitted. Fees in 2007 are:

Shore-based facility processing <5000 lbs./day	\$ 795
Shore-based facility processing ≥5000 lbs./day	\$2094
Cannery processing <5000 lbs./day	\$1120
Cannery processing ≥5000 lbs./day	\$2094
Direct Marketing Land-based	\$ 200
Direct Marketing Vessel <65’	\$ 325
All Other Vessels	\$2094

If your proposed operation involves any form of processing, as defined above, be prepared to submit scale drawings of your vessel or facility with the processing permit application. These drawings must indicate location of toilet and hand-washing stations, plumbing lines, locations and types of processing equipment, how processing waste will be discharged, where you will get approved water for processing, and other specified information.

DEC will review your application and, depending on what and how you plan to process, may require any or all of the following additional permits:

- Plan Review and Approval of Sewage or Sewage Treatment Works
- Air Quality Control Permit to Operate
- Wastewater Disposal Permit
- Solid Waste Management Permit
- Plan Review and Approval of Public Water Systems
- National Pollutant Discharge Elimination System Permit from the U.S. E.P.A.
- Food Service Permit

Processing these applications can take up to eight weeks and it is not legal to operate without having received initial issuance of the appropriate permits.

7. HACCP Plan

Federal Hazard Analysis Critical Control Point (HACCP) regulations require each processor to conduct a hazard analysis to identify significant hazards in the species and processing method. If significant hazards to sanitation or wholesomeness are present, you must specify in a HACCP plan the critical control points, critical limits, and where and how they will be monitored. DEC includes HACCP inspections as part of their regular seafood processing facility inspections. See the section on HACCP elsewhere in the appendices of this manual.

8. Certification of Measuring/Weighing Devices

Certification of Measuring/Weighing Devices (from the Division of Measurement Standards) is required for scales used to weigh fish for sale. The device must be checked annually and bear an inspection sticker. The fee is based on the capacity of the scales.

9. Federal Laws Enforced by the National Marine Fisheries Service (NMFS)

If you are marketing halibut or blackcod (sablefish) caught under provisions of an individual fishery quota (IFQ) or community development quota (CDQ), you must comply with applicable federal laws. See Appendix B, which addresses direct sales of fish caught under the federal IFQ program.

Category B - Requirements for Catcher/Sellers

1. Catcher/seller application

Catcher/Sellers are those fishermen who sell only their own catch, unprocessed, directly from their boat to the public in Alaska. The required application is available online at www.cf.adfg.state.ak.us or

at your local ADF&G office.

2. Fish Tickets

See Category A above for details

3. Certification of Measuring/Weighing Devices

See Category A above for details.

4. Fisheries Business Tax Return

Catcher/Sellers are liable for payment of salmon enhancement taxes. See Category A above for details.

5. Federal Laws Enforced by the National Marine Fisheries Service (NMFS)

See Appendix B for details.

6. Mobile Vending License

This license is required by DEC if your product will be transferred to a cart, car, or truck for sale.

Category C - Requirements for Catcher/Exporters

1. Alaska Direct Marketing Fisheries Business License Application and Intent to Operate

See Category A above for details.

2. Seafood Processors Permit

This permit can be held by a custom processor that you have handle your seafood product for you, or an "approved source"/ Permitted Processor to which you sell your product. (If you sell it before it leaves the state you are not an exporter.) If you do have the product handled by a custom processor, you will need to become an approved source/Permitted Processor yourself by filling out the ADEC Seafood Processors Permit Application. See Category A above for details.

3. Alaska Commercial Operators Report

See Category A above for details.

4. Fish Tickets

See Category A above for details.

5. Certification of Measuring/Weighing Devices

See Category A above for details.

6. Fisheries Business Tax Return

See Category A above for details.

7. Tax and Other Surety Bonds

See Category A above for details.

8. Federal Laws Enforced by the National Marine Fisheries Service (NMFS)

See Appendix B for details.

9. Exporting salmon in the round

A special law applies to the exportation of salmon in the round. Contact Department of Revenue for details. Exporting of any seafood product, if not from an approved source/permitted processor, must be to a processing facility under the regulatory oversight of a governmental health agency.

Requirements for all other categories

Categories D-G are not within the scope of this manual. Operators in these categories should begin by contacting ADFDG, DEC, and DOR to determine which permits, licenses, taxes, or bonds are required. Fees, taxes and permits other than those listed may be required.

Category H – Transporters need a Fish Transporter Permit, issued by ADFG, as well as a valid commercial fishing vessel license from the Commercial Fisheries Entry Commission. See **Instructions for Fish Transporters** for full information on permits, operating requirements, fish ticket reporting requirements and other regulations, available at www.cf.adfg.state.ak.us/geninfo/permits/transporter_app.pdf. Transporters are exempt from posting bonds, paying fish processing taxes, and from filing a Commercial Operators Annual Report.

U.S. Food and Drug Administration (FDA) Requirements

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 requires that all food processors, including fisheries enterprises in Alaska that meet the definition of seafood processing, be registered with the FDA. Exempted are fishing vessels that head, gut, or freeze fish solely to maintain their quality while aboard the vessel for delivery to a processor. Registration can be done on-line at www.access.fda.gov, by mail using Form 3537, or by CD-ROM, for which the PDF can be downloaded at www.cfsan.fda.gov/~furl/papercd.html.

Processors whose product goes into interstate trade are subject to mandatory, unannounced FDA sanitation and HACCP inspections. FDA contracts with the state's DEC to do most of its processing vessel inspections.

Seafood products sold in retail-size packaging are required to have nutritional content labels. Nutritional content information, for individual fish and shellfish species, is available at www.nal.usda.gov/fnic.

Addresses and Web Sites

Alaska Department of Environmental Conservation (ADEC)

Division of Environmental Health, Seafood Section
555 Cordova Street
Anchorage, Alaska 99501-2617
Phone: (907) 269-7640
Fax: (907) 269-7510
www.state.ak.us/decl
Email: manny_soares@envircon.state.ak.us
Seafood Processors Permit Information: (907) 269-7501

Alaska Department of Fish and Game

Alaska Department of Fish and Game (ADF&G)
Division of Commercial Fisheries
P. O. Box 25526
Juneau, Alaska 99802-5526
Phone: (907) 465-4210
Fax: (907) 465-2604
www.cf.adfg.state.ak.us
Email: cfweb@fishgame.state.ak.us
Intent to Operate and Catcher/Seller Permit Information: (907) 465-6131

Division of Measurement Standards

Section of Weight and Measures
12050 Industry Way, Building O
Anchorage, Alaska 99515
Phone: (907) 345-7750 Fax: (907) 345-2313
Email: jamesecomiskey@dot.state.ak.us
www.dot.state.ak.us
Juneau office: (907) 789-9763

Alaska Department of Revenue

Tax Division
P.O. Box 110420
Juneau, Alaska 99811-0420
Fishery Business License Information: (907) 465-2371
Fax: (907) 465-2375
www.revenue.state.ak.us

National Marine Fisheries Services

Restricted Access Management Division
P. O. Box 21668
Juneau, Alaska 99802-1668
Phone: (907) 586-7221
Fax: (907) 586-7131
www.nmfs.noaa.gov
Email: Alaska.webmaster@noaa.gov

Many permits are available online:

NMFS Registered Buyer Permits are available at www.fakr.noaa.gov/ram/reg_buyer_app_inst.pdf

NMFS Federal Processor Permits are available at <http://www.fakr.noaa.gov/ram/applications.htm>

Alaska Seafood Processor Permit Application forms are available at www.dec.state.ak.us/eb/forms.htm under “Seafood and Shellfish Permits.”

Alaska Direct Marketing Fisheries Business License Application and Intent to Operate forms are available at www.cf.adfg.state.ak.us/geninfo/permits/plf_home.php. This packet includes applications to the Department of Revenue and Department of Fish & Game. You can also apply online at www.tax.state.ak.us/fish. You will need to create an account with “my Alaska” which is also used to apply for the Permanent Fund Dividend online, to use this feature.

Alaska Fisheries Business License Application and Intent to Operate forms can also be found at www.cf.adfg.state.ak.us/geninfo/permits/plf_home.php or at www.tax.state.ak.us/fish.

Appendix K

State and Local Regulations in Oregon

Commercial fishermen, accustomed to fluctuations of supply and demand, often look for new ways to market their catch. Some consider selling directly from their boat, truck, or small roadside stand.

Such a decision requires giving careful thought to potential problems: regulations, licenses, transportation, cold storage, price monitoring, packaging, sale location, and time away from fishing. In the long run, you might decide it's to your advantage to sell your catch to a processing plant so you can spend more time fishing.

If you decide to sell your catch directly to the public, you will need to obtain a number of licenses and forms—from several different state and local agencies—and pay the necessary fees. This fact sheet lists the required forms, licenses, and fees. Remember, fees (current as of 2003) are subject to change.

Here are the agencies you'll need to contact.

Oregon Department Of Fish And Wildlife (ODFW)

3406 Cherry Ave., Salem, OR 97303.

Licensing: 503-947-6100.

It's important that all commercial fish landed in Oregon be documented. That's why Oregon law requires that all commercial fish landed in the state be sold to a wholesale fish dealer and reported on a fish ticket. The only exception is that a fisherman may sell fish from his or her boat under a limited fish seller's permit and report total trip sales on fish tickets. The dealer, or limited fish seller, is responsible for landing fees for any salmon sales of 3.15% of the ex-vessel value plus \$0.0575 per pound dressed weight (or \$0.05 per pound in the round) and 1.09% of the ex-vessel value for all other fish and shellfish. Additional fees are paid directly to one or more of the four commodity commissions, depending on the species sold from the boat.

If you want to sell your own catch, you have three options.

1. Limited Fish Seller's Permit

A limited fish seller's permit is a limited retail permit that authorizes you, as a licensed commercial harvester, to sell from your boat, food fish and shellfish caught by your boat. You can sell the fish only to the final consumer, defined as the person who will consume the fish. At this time, a restaurant is considered a final consumer. You cannot sell away from the boat, nor can you appoint anyone else to sell your fish in your absence. Furthermore, you cannot sell under the permit to anyone who will resell the fish (for example, a fish market or a grocery store).

After you have sold the fish to the final consumer and have recorded the sale on a numbered receipt, you may conduct or allow loining or filleting of the sold fish on your boat. Check with the Oregon Department of Agriculture for sanitation recommendations.

You must make a numbered receipt for each sale (you must keep the receipts on your boat for six months and make them available for inspection for three years). You must record your sales on fish tickets and send the tickets to ODFW. You need to prepare monthly reports

for ODFW and pay landing fees to that agency. Furthermore, you must pay commodity fees to the commodity commissions. You do not need a retail license from the Department of Agriculture.

Costs and equipment: \$20 fee, \$200 refundable deposit, a certified scale, and numbered receipt books. ODFW furnishes fish tickets, fish ticket envelopes, and monthly report forms.

2. Wholesale Fish Dealer's License

A wholesale fish dealer's license is required if you process your fish or sell it to retailers. It is a license for one specific, fixed business location, often your home. No other dealer may be licensed at that location. If you receive any fish at a location other than the licensed location, you must buy a buyer's license, which costs \$150.

If you have a wholesale fish dealer's license and a buyer's license, you can—like the limited fish seller—sell fish caught by your boat directly from your boat. However, if you sell retail away from your boat, you will need a retail license from the Department of Agriculture unless you are selling at a farmers' market.

Costs and equipment: \$350 fee (wholesale license only); \$1,000 bond, assigned savings, or refundable deposit; certified scale and receipt books or invoices. ODFW furnishes fish tickets, fish ticket envelopes, and monthly report forms.

3. Selling Fish To—Then Buying Fish Back From—A Wholesale Fish Dealer

If you sell fish to a wholesale fish dealer and then buy fish back from the dealer, you in turn can sell only to a final consumer. You cannot sell the fish from a commercial fishing boat, and you cannot sell to a retailer. The wholesale fish dealer must record the sale of your landing at current market price on the fish ticket. In turn, the wholesaler will need to recover from you the landing and commodity commission fees as well as other ex-penses. No license is required from ODFW. However, you need to keep very good records.

To buy fish from a wholesaler and then resell to a retailer, you will need a license from the Department of Agriculture, unless you are selling at a farmers' market.

Oregon Department Of Agriculture (ODA)

635 Capitol NE

Salem, OR 97310

Contact: Administrator, Food Safety Division, 503-986-4720

1. No ODA license is required if you sell only raw agricultural products (whole or dressed fish) directly from your boat. Guidelines for safe fish filleting are available from ODA. Inspection is not required.
2. If you sell from a vehicle or stand, an ODA retail license (\$75 minimum) is required. A food processor's license (\$75 minimum) is required if you do any processing, except for filleting raw fish for the final customer. If you have the product processed in an ODA-licensed facility, you do not need a processor's license.
3. You must use an ODA-approved scale for all sales (see Measurement Standards Division).

4. Keep the temperature of your catch under 40°F at all times. Proper icing should be sufficient.
5. Except for boats that sell raw fish only, sales locations are subject to provisions of the retail Food Code.

Measurement Standards Division

503-986-4670

1. You can purchase new or used scales that are legal for trade (known as Class III weighing devices) from a reputable scale dealer. You won't find these in your local hardware store. Several companies listed under "scales" in Portland offer them. Be sure to determine that a scale is accurate and certifiable by the Oregon Measurement Standards before you buy it.
2. Obtain a scale license application from the ODA Measurement Standards Division. Once you have filled out the application and sent it in with the annual (July 1–June 30) fee (\$30 for scales up to 400 pounds capacity), you may use the scale if it is an accurate Class III weighing device. Appointments for scale testing can be made at the Salem metrology lab at 503-986-4672. You do not need to have the scale tested before you use it if it is a licensed, accurate, Class III device. A license certificate will be mailed to you.

Oregon Driver And Motor Vehicle Services (ODMV)

1. If you transport your catch to another location, no special license is required if your gross vehicle weight (loaded) is under 8,000 pounds.
2. If your loaded vehicle weighs more than 8,000 pounds, contact the ODMV about licensing and permit requirements. You can contact your local ODMV office, or call the central customer assistance line at 503-945-5000.

County

Courthouse

1. Check the county planning department regulations on zoning requirements for selling from a vehicle or stand on the public right-of-way. Also, obtain permission from the appropriate body (state Highway Division, county road office) before setting up a stand.
2. If you want to sell from private property, get permission from the owner and check with the county for zoning regulations.

City

City Hall

1. If you want to sell from a vehicle or stand within a city limits, check to see if you need a business license, a vendor's license, or both. Prices vary considerably from town to town.
2. If you want to sell on private property, be sure to get the owner's permission, buy a business license, and make sure you meet city zoning requirements.

Other

Additional requirements for individual species:

1. Crab: Obtain poundage fee forms from the Oregon Dungeness Crab Commission. P.O. Box 1160, Coos Bay, OR 97420; 541-267-5810. www.oregondungeness.org
2. Albacore: Obtain poundage fee forms from the Oregon Albacore Commission, PO Box 983, Lincoln City, OR 97367, Phone # 541-994-2647. www.oregonalbacore.org/
3. Salmon: Obtain poundage fee information and forms from the Oregon Salmon Commission, P.O. Box 983, Lincoln City, OR 97367; 541-994-2647. <http://oregonsalmon.org>
4. Bottomfish, shrimp, scallops (trawlcaught): Obtain first purchaser's report forms from the Oregon Trawl Commission, P.O. Box 569, Astoria, OR 97103; 503-325-3384. www.ortrawl.org/
5. HACCP: You do not need to have an FDA/ODA HACCP or sanitation plan unless you are processing on board (not including troll-dressing salmon). Processors may place HACCP-related requirements on albacore boats.

For Further Information

Oregon Sea Grant and the OSU Extension Service offer many publications that may be useful to fishermen wishing to market their own catch.

Please order by publication number; when fees are charged, prepayment is required.

The following publications are available from Oregon Sea Grant Communications

Oregon State University

322 Kerr Admin. Bldg.

Corvallis, OR 97331-2131

Phone: 541-737-2716

Also available on the Web at <http://seagrant.oregonstate.edu/sgpubs/index.html>

Oregon Sea Grant Publications Directory

No charge.

Albacore Tuna: A Quality Guide for Off-the-Dock Purchasers

ORES-U-95-003. 50¢. Also on the Web at

seagrant.oregonstate.edu/sgpubs/onlinepubs/g95003.pdf

Ensuring Food Safety . . . The HACCP Way: An Introduction to HACCP & a Resource Guide for Retail Deli Managers

T-030. \$1.

Hazard Analysis and Critical Control Point Applications to the Seafood Industry

ORES-U-92-001. \$4.

Preparation of Salt Brines for the Fishing Industry

ORES-U-99-002. 50¢.

Quality Control and Quality Assurance for Seafood

(Conference proceedings.)

ORES-U-93-001. \$15.

Understanding and Controlling Histamine Formation in Troll-Caught Albacore Tuna: A Review and Update of Preliminary Findings from the 1994 Season

ORES-U-01-001. No charge.

Also available on the Web at <http://seagrant.oregonstate.edu/sgpubs/index.html>

The following publication is available from Extension and Experiment Station Communications, Oregon State University, on the Web at eesc.orst.edu/agcomwebfile/edmat/SG79.pdf

Parasites in Marine Fishes: Questions and Answers for Seafood Retailers

Appendix L

Marketing Your Own Catch: State and Local Regulations in Washington

Sarah Fiskén, Washington Sea Grant

Fishermen in Washington may sell their catch themselves by either obtaining a *Direct Retail Endorsement* or a *Wholesale Dealers License*, in addition to meeting other requirements. With both of these options, start with the Department of Fish and Wildlife Department Licensing Division, (360) 902-2464.

Tax Registration Number

Because the state collects taxes from the sale of fish, you are required to have a tax registration number. A tax number valid for the duration of the business is available for \$15 (a temporary tax number, valid for up to 30 days, is also available at no charge) from the Department of Revenue, 1-800-647-7706.

Direct Retail Endorsement

This applies only to current holders of salmon or crab licenses. Salmon must be sold uncut and unprocessed except for gutting and removal of the head. Crab must be sold live. Below are general requirements. Please contact the state Department of Fish & Wildlife and your local health department for any additional requirements.

Requirements:

- Only the person who owns the license may apply.
- The applicant must obtain a letter from their county health department certifying that their method of operation (transporting, storage and display of product) meets county and state standards for a food service operation. This letter must be presented to the Department of Fish & Wildlife before a direct retail endorsement will be issued.
- Holders of direct retail endorsements must complete fish/shellfish receiving tickets. This procedure is similar to that required of wholesale dealer license holders.
- Any salmon or crab caught by the holder of a direct retail endorsement must be landed in the round and documented on fish tickets, as provided for by the Department of Fish & Wildlife, before further processing.
- The fee for this endorsement is \$50.
- The applicant must also obtain a food and beverage service worker permit, available from their county health department.

Wholesale Dealers License

A Wholesale Dealer's License is available from the Department of Fish & Wildlife Licensing Division at an annual fee of \$250. An additional fee may be required if your operation is a company or corporation.

Washington Department of Fish & Wildlife
Licensing Division
Mailing Address: 600 Capital Way N.
Physical Address: 1111 Washington St. SE
Olympia, WA 98501
(360) 902-2464

A Surety Bond of \$2000 is required to make certain that fish receipts are reported in a timely and accurate manner. Information and forms are available from the Department of Fish & Wildlife Licensing Division.

Inspected & Approved Scales

The scale you use for weighing your product must be accurate. It must be certified annually by the Washington State Department of Agriculture, Division of Weights & Measures, Olympia, (360) 902-1857.

City or County Business Licenses

Contact your local city or county licensing department or clerk to find out if you need a business license to operate in your chosen area.

Additional Requirements or Regulations

Some counties require additional permits and regulations for selling seafood. Please contact the appropriate county:

Pacific County

Pacific County Health
Department Courthouse
South Bend, WA 98586
(360) 875-9356
Health Inspector, Faith Taylor

Jefferson County

Environmental Health
615 Sheridan St.
Port Townsend, WA 98368
(360) 385-9436
Larry Fay

Grays Harbor County

Grays Harbor County
Environmental Health Division
100 W. Bdwy., Suite 31
Montesano, WA 98563
(360) 249-4413
Janna Denning, Food Program
Coordinator

Seattle-King County

Environmental Health
2124 4th Ave.
Seattle, WA
(206) 205-3485

Bremerton –Kitsap County

Environmental Health Division
109 Austin Dr.
Bremerton, WA
(360) 337-5235/5726
Bonnie

Whatcom County

Environmental Health
509 Girard St.
Bellingham, WA 98225
(360) 676-6724

Clallam County

223 East 4th St.
Port Angeles, WA 98362
(360) 417-2589
Joe Graham

Appendix M

Sources of Information and Materials

The following is a partial list of sources for information, services and materials that may be of use to direct marketers.

Inclusion does not imply endorsement by the Alaska or Washington Sea Grant programs, nor does it indicate that authors have investigated or tested the products or services offered by the companies listed.

Sources for Information on Potential Markets

Alaska Seafood Marketing Institute.

Directory of Alaska Seafood Suppliers, sales aids and literature catalog. www.alaskaseafood.org
(800) 478-2903

Chain Store Guide.

Directories of chain and independent restaurants, food service distributors and wholesale grocers. www.csgis.com.
(800) 927-9292

ContactDirect.Com.

On-line directories of food and beverage industry companies. www.contactdirect.com.
(757) 599-4644

Food Logistics.

Business journal of food shipping industry
www.foodlogistics.com.
Circulation (920) 563-1743

Marketplace Classified Advertising Sales

Ross Johnson
(920) 563-1723
(920) 568-2244 Fax
ross.johnson@cygnusb2b.com

Seafax Yearbook.

Seafood industry financial information
sales@seafax.com.
(800) 777-3533

Seafood Business.

Publishes Seafood Business (monthly journal of the seafood industry) and Seafood Handbook (a buyers guide).
www.seafoodhandbook.com.
(207) 842-5682.

Urner Barry Publications, Inc.

Seafood market newsletters, business directories, wall charts, fish- and seafood-related books.
www.urnerbarry.com.
(800) 932-0617

Sources of Shipping, Insulating and Related Materials

American Thermal Wizards International, Inc.

Insulated shipping packaging.
www.ATW-International.com.
(866) 568-3289.

A. Mindle & Associates.

Tray packaging for processed products.
www.amindle.com
(831) 425-6627

Beck Pack Systems Inc.

Shipping packaging and liners.
www.beck-liner.com
(206) 575-3037

Eastern Seaboard Packaging.

Insulated shipping containers and container insulation
info@thermashield.net,
info@easternseaboardpackaging.com.
(704) 895-7277

Ketchum Manufacturing Inc.

Seafood and aquaculture tags, merchandizing products.
www.ketchum.ca.
(613) 342-8455

Packaging Products Corporation.

Shipping boxes, insulation, and gel packs.
(800) 225-0484

Packagemasters Inc.

Packaging supply and design, vacuum pouches, labels.
(800) 938-7511

Peterson Pack Systems Inc.

Shipping packaging and liners.
www.beck-liner.com.
(206) 575-3224 Fax

QuickLabel Systems.

Product package labels
www.quicklabel.com.
(877) 757-7978 (401) 822-2430 Fax

Sensitech Inc.

Temperature data loggers.
(800) 843-8367
(978) 921-2112 Fax
www.sensitech.com

Stock America Inc.

Packaging systems
www.stockpackaging.com.
(262) 375-4100

Stoffel Seals Corporation.

Product package labels.
www.stoffel.com.
(770) 574-2382

Victory Packaging.

Boxes, bags, plastic wrapping, shipping supplies.
(800) 790-8457

Yerecic Label.

Product package labels.
www.yereciclabel.com. (800) 245-2700

Sources of Shipping, Handling, Logistics and Cold Storage**LIFOAM.**

Shipping containers, insulation, and gel packs.
www.lifoam.com.
(800) 638-1471 (800) 937-3626 Fax

Old Dominion Freight Line.

Product shipping and logistics services.
www.odfl.com.
(800) 432-6335

VersaCold.

Seafood product freezing, shipping, and warehousing.
(360) 354-2138 (360) 354-1304 Fax
dshuler@versacold.com
www.versacold.com

United States Cold Storage.

Cold storage services, refrigerated and logistical services.
www.uscoldstorage.com.
(856) 354-8181 (856) 354-8199 Fax

AmeriCold Logistics.

Refrigerated product logistics services, warehouses, consolidation.
www.americold.net.
(888) 808-4877

Global Perishable Logistics Group.

Air and sea freight, storage, distribution, and logistics.
www.gplg.org.
(617) 5599-2333 (Australia)

Oceanair, Inc.

Perishable logistics services, inventory management, containers, freight and insurance services, etc.
(781) 286-2700 (781) 286-3095 Fax
sales@oceanair.net
www.oceanair.net

Seafreeze Cold Storage.

Cold storage.
(206) 767-7350
www.seafreeze.com.

Astra Information Systems.

Seafood distribution, importing and processing technology
sales@astrainfo.com
(800) 305-5567 ext. 111

DeltaTrak.

Temperature recording produces, in-transit data management
www.deltatrak.com
(800) 962-6776

Sources of Insurance, Inspection and Credit Services**Alaska Manufacturers' Association.**

Quality seafood program. Consulting, grading, inspection.
www.alaskaqualityseafood.com,
seafood@alaskamfg.com.
(907) 565-5655

Capitol Risk Concepts, Ltd.

Product insurance and produce liability insurance
(914) 946-7161 (914) 683-8048 Fax
john.keane@crclimited.com
www.crclimited.com

InsureCargo Insurance Services, Inc.

Cargo insurance.
www.insurecargo.com
(888) 286-5647

Northeast Analytical Laboratory Services.

Product quality testing and assurance.
information@nealab.com.
(518) 346-4592

Seafax.

Business reports, creditors index, company credit reporting, collection service, credit insurance.
See Seafax, above.

Shorepoint Insurance Services.

Cargo insurance, business and product liability insurance
www.shorepointinsurance.com.
(800) 350-5647.

Surefish.

Seafood inspection, chain-of-custody certification, HACCP audits, training.
(206) 284-1472 (206) 282-6288 Fax
surelab@surefish.com
www.surefish.com

U.S. Department of Commerce Seafood Inspection Program.
Product inspection services. Federal Standards for Fish Plants. Policy for Advertising Services and Marks (800) 422-2750

Appendix N

Glossary of Seafood Business Terms

Accrued expenses – An expense incurred but not yet paid.

Amortization – The gradual reduction of a debt by means of periodic payments sufficient to meet current interest and extinguish the debt at maturity.

Assets, capital – Those assets which are not readily convertible into cash and in the ordinary course of business are not so converted, more often termed *fixed assets*.

Assets, liquid – Those assets, generally current, which may be quickly turned into cash.

Break-even analysis – A method used to determine the point at which the business will neither make a profit nor incur a loss. That point is expressed in either the total dollars of revenue exactly offset by total expenses; or in total units of production, the cost of which exactly equals the income derived by their sale.

Broker – An agent who sells a product for the owner, for commission. Usually brokers do not buy product or acquire any ownership. Fees usually are 3 percent to 5 percent of the sales price.

Business plan – An objective, written review of your business to identify areas of weakness and strength, pinpoint needs and begin planning how you can best achieve your business goals.

Cash flow – The sources and uses of a company's cash funds over a designated period.

Cash position – The percentage of cash to total net assets indicates relative cash positions. It includes cash and United States government securities and is the net amount after deducting current liabilities.

CIF – Cost, insurance, freight. The price an importer or wholesaler pays for fish which has been processed, and for which insurance and freight fees have already been paid. It is processor cost plus freight and insurance.

C&F – Cost and freight. Same as above without insurance paid.

Collateral – Property that is pledged as security by a borrower to a lender as assurance that a loan will be repaid. It may be a tangible item such as a vessel or a piece of land and building, or it could be intangible such as a trade receivable owed to you, or both.

Corporation – A form of business organization that may have many owners with each owner liable only for the amount of his investment in the business. It is an artificial person created by state or federal law. As defined by the Supreme Court of the United States, a corporation is an artificial being, invisible, intangible and existing only in contemplation of law.

Current assets – Those assets which are readily convertible into cash without substantial loss; included are cash, investments, notes and accounts receivable, and inventories.

Current liabilities – Those obligations ordinarily intended to be paid in the usual course of business within a relatively short time, normally within a year, out of earnings.

Current ratio – The ratio of current assets to current liabilities, indicating the ability of a business to pay its current liabilities in cash as they fall due.

Custom processing – Service provided for a fee on products owned by a customer other than the processor. Custom processing could be as little as washing and boxing, or as complex as portioning, smoking, and vacuum packaging.

Debt capital financing – Money borrowed with the intention of paying it back plus interest.

Debt to worth ratio – A ratio of your business' total liability to its net worth.

Depreciation – Expiration in service life of fixed assets, other than wasting assets, attributable to wear and tear through use and lapse of time, obsolescence, inadequacy or other physical or functional cause.

Distributor/wholesaler – An agent who buys large lots of product, transports and possibly warehouses it, and then sells small quantities to many food service or retail outlets.

Dividends – The proportion of the net earnings of a corporation paid to the stockholders as their share of the profits.

Eastern cut – Fish product form with head removed but collar left on.

Entrepreneur – One who assumes the financial risk of the initiation, operation and management of a given business or undertaking.

Equity – The monetary value of a property or business which exceeds the claims and/or liens against it by others.

Equity capital financing – Money given to your business, without the intention of paying it back, in return for part ownership in your business.

Export – Sent outside the country of origin.

Ex-vessel – The price paid to fishermen for raw (unprocessed) fish.

Filet, fillet – (pronounced "fi-lay" and "fill-et") – Two words for the slice of meat taken from each side of a fish outboard of the backbone and ribs, from behind the gills to the isthmus "caudal peduncle" before the tail. May include some bones unless identified as "bone-out."

Fletch – A fillet of a halibut, consisting of one whole side of the fish, above and below the backbone and running from behind the gill plate to the caudal peduncle.

Food service industry – The group of food providers that includes restaurants, hotels and cafeterias in establishments like schools, hospitals, nursing homes, prisons and businesses.

FOB – Free on board. A term used in a sales agreement which specifies that the buyer is responsible for all transportation costs including freight and insurance from the location designated on the shipping document.

Glaze – A solution applied to a frozen product designed to seal the surface and protect it from dehydration and oxidation.

Guaranty – A written commitment by an individual or authorized legal entity to pay back a loan in the event the borrower is unable to do so.

HACCP – Hazard Analysis Critical Control Point. A seafood safety assurance plan based on identifying and monitoring those points in the process system where contamination could occur.

H&G – Headed and gutted.

IFQ – Individual fishery quota

Ikura – Japanese, from the Russian “ikra” for fish eggs, ikura is salmon caviar –individual salted eggs, as opposed to sujiko, see below.

IQF – Individually quick frozen.

Inventory – The amount of product currently kept in storage ready for sale. Carryover is inventory at the beginning of a new season, which remains from the previous season.

Leverage – The relationship of other people’s money (debt) in relation to your own investment (equity) in your business.

Liquidity – Solvency of a business; the degree of readiness in which assets can be converted to cash. If assets cannot be converted into cash to meet current liabilities, the firm is said to be illiquid.

Management – The administration and policy makers of a business; those responsible for planning goals and objectives.

Market – The number of people and their total spending (actual or potential) for your product line within the geographic limits of your geographic ability. Also, the geographical area itself. Also, the ethnicity or other characteristics of a group of consumers. Also, the particular processing company that buys product from a fisherman. Also, as a verb, to conduct the activities (including research, product positioning and advertising) needed to bring a product to the attention of purchasers and get them to buy.

Marketing – The business of tailoring the right mix of product form, price and promotion to a specific segment of the population to meet a sales goal.

Market niche – A segment of the population that buys a certain product because it suits their needs in terms of product form, price, packaging and promotion style.

Metric ton – 2,200 pounds.

Net worth – The excess of the assets of an individual or an enterprise over all his, her or its liabilities.

Niche market – A small group of consumers, defined by ethnicity, geography or some other feature, that allow them to be targeted by a sales effort for a small quantity of product.

Partnership – Two or more persons who are associated in order to pursue a business for profit.

Portion – a piece of fish (e.g., steak or piece of fillet) which is cut to a specific and uniform weight.

Princess cut – Gilled and gutted, with the throat latch left intact.

Processing – Any of various mechanical activities that prepare a fish for storage, transport and consumption by removing unwanted parts of it and stabilizing it by freezing or cooking. Secondary or value

added processing may include portioning, smoking, curing or other treatments that improve flavor or make it more user-friendly.

Processing yield – Processed weight divided by the original whole fish weight. The result is given as a percentage.

Pro forma – A projection or estimate of what may result in the future from actions in the present. A pro forma financial statement is one that shows how the actual operations of the business will turn out if certain assumptions are realized.

Profit – The excess of the selling price over all costs and expenses incurred in making the sale.

Receivable – An asset in the form of an amount which is due from a borrower.

Recovery rate – The percentage of round fish weight which remains after processing.

Retail – The final link in the distribution chain where the product is sold to the consumer. Fish markets and supermarkets are considered retail outlets; restaurants and institutional food service facilities usually are not.

Retro – A payment to fishermen as a bonus or incentive that is above, and usually comes later than, the grounds price settlement.

Rigor mortis – Literally “stiffness of death,” the muscle tension that occurs some hours after a fish expires. Product processed and frozen pre-rigor is generally higher quality when it thaws.

Round – Whole. Round fish is whole, unprocessed fish, and round fish weight is the total weight of the catch before heading and gutting, and grading or culling inferior grade fish.

Shrinkage – The loss of weight of product between its purchase and sale, due to “drip” (loss of fluid from the flesh) as well as from product that doesn’t sell before it goes bad.

Sole partnership – Ownership by one person of an entire business.

Sourcing – The process of finding product to purchase for subsequent resale.

Sujiko – Japanese, for salmon eggs processed and sold in the skein rather than separated out, as in ikura.

Surety bond – A cash deposit, pledge of property or insurance policy that is forfeited if the entity posting the bond fails to comply with requirements for which it is posted, such as remitting taxes, paying employees or performing the contracted service.

Trader – One who buys and sells on behalf of another company and, unlike a broker, takes ownership of the product.

Tramper – a cargo ship that is chartered by voyage rather than running on a scheduled route. Trampers are commonly chartered to transport Alaska fish to Japan at the end of the season.

Uni – Japanese, for sea urchin gonads.

Value added – Further processing or packaging of a product that causes the product to sell for a higher price.

Appendix O

Business Plan Outline

The following outline for a business plan details what information should be included under each category. Please note that all parts may not be applicable to every business. Similarly, there may be additional categories that should be included.

Title Page

- Business Name
- Purpose (Planning and/or Financing Proposal)
- Name of Principals
- Contact Information

Executive Summary

Describes the purpose and/or goal of the business plan and summarizes the major points of the business plan. This summary should be one to two pages and should highlight the important facts that are described in detail within the plan.

Table of Contents

List all of the headings within the plan and the pages they are located on.

Description of Business

- Mission statement
- Type of business/industry
- Status of business (start-up/existing/expanding)
- Form of business (sole proprietor/partnership/corporation)
- Location (address)
- Physical features of building
- Own or lease facility
- Hours of operation/seasonal (peaks/valleys)
- Background and history
- Future goals/objectives/strategies
- Products/services (description/customer benefits)
- Target market

Market

Company

Analysis

- Company goals/focus
- Company strengths/weaknesses
- Niche market

Product/Service

- Description of products/services
- Benefits to consumers
- Compare to competitors

Consumers

- Type of consumers (wholesale/retail)
- Products/services purchasing
- Factors affecting purchasing decisions (politics/economics/etc.)

Competition

- Primary competitors
- Competitors' products/services
- Evaluation of product/service (similar/dissimilar)

Marketing Plan

- Overall market description
- Size/growth and trends
- Market segments
- Market projections
- Products/service (brand name/quality/scope/package/warranty)
- Pricing (list price/discounts/payment terms)
- Distribution (channels/locations/logistics)
- Promotion (advertising/public relations/trade shows/partnerships)
- Sales force and forecast
- Market growth potential

Management

- Management team (include resumes)
- Business background/management experience
- Division of responsibilities of management team
- Strengths/weaknesses of team
- Salary and/or payment plan
- Benefit plan
- Outside management and/or assistant needs

Personnel

- Personnel needs
- Skills required
- Training requirements/availability
- Full-time/part-time
- Salary/hourly
- Benefits
- Employee policies/contracts

Financial Data

- List of capital equipment
- Source and application of start-up capital
- Inventory control system
- Accounting system
- Three years profit and loss statement (income and expenses)
- Three years balance sheet (assets, liabilities and owner equity)

Cash flow (projected monthly breakdown of when money comes in and goes out, where money came from and what it was spent on)

Break-even analysis (level at which total revenues and total expenses equal; no profit/no loss)

Explanation of assumptions for all financial documents

Three years tax returns (company and principals)

Supporting Documents

Contracts/leases/agreements

Copies of licenses/permits/certifications/etc.

Community support

Marketing research information

Credit reports

Principal current financial statements

Resumes

Tax returns

For an electronic fisheries business plan template, see Alaska Fish Business Plan Writer, available from Alaska Sea Grant's Fisheries Business Assistance Project ("FishBiz"). You can request a free CD from the Alaska Sea Grant MAP, or download the program by going to www.alaskafishbiz.org and following the link to fisheries business management.

