Background

There's no doubt about it—U.S. Department of Agriculture (USDA) projections show that Americans are eating more chicken than ever. According to USDA records, domestic per capita broiler consumption increased from a little more than 32 pounds in 1980 to approximately 55 pounds in the year 2000. By 2010, poultry consumption is expected to reach 65 pounds per capita (USDA, Economic Research Service, 2004). Driving this demand, say USDA staff, will be lower poultry prices.

These projections bode well for farmers interested in entering or expanding large-scale broiler operations, but what about the specialty producers of organic, pastured, and ethnic poultry products? Anecdotal evidence suggests that consumption of these products will grow as well. Customers in some areas are actually seeking out specialty growers—traveling to the farm for fresh, free-range poultry—and eggs appear to be no different. Certified organic farmers in Minnesota say they can sell as many eggs as they produce and in some cases have to ration eggs on market days to ensure that there are still some left for Sunday morning regulars.

New marketing opportunities are directly tied to general public knowledge and growing interest in food products that are not only safely produced, good tasting, competitively priced, and ready-to-cook, but also cater to diverse social and cultural values. Consequently, customer preferences in some areas have opened up new markets for specialty poultry such as organic chicken wings, pastured turkey, quail eggs, and Confucian-style black chicken (see Figure 6 for one example).

Figure 6: Preferences for Pastured Poultry

A total of 77 middle income men and women from Minnesota, Wisconsin, and Iowa were selected to participate in several 2002 focus groups called "Pasture Raised Products Message and Strategy." The topics of discussion at each focus group included food buying habits, knowledge of pasture-raised products, and convincing advertising strategies. Results showed that customers:

- Purchase poultry based on appearance
- Desire health benefits but not at the expense of taste
- Try new products when incentives (coupons) are offered
- Are most concerned about disease and bacteria; are less concerned with antibiotics
- Select products primarily by convenience and price
- Don't always trust their food source to provide safe, quality food (regardless of whether it's a large corporation or a local farmer)
- Feel overwhelmed by availability of advertising and other information
- Feel the name of production technique (e.g., pasture-raised, free-range, etc.) is less important than having a standard definition for a term that they can trust
- Will ultimately purchase products that offer direct benefits (low fat, healthier, etc.)

Source: Shelquist, 2002.

If you farm near an urban area, are willing to do some homework, and can keep an open mind, you may be able to cash in on local marketing opportunities and turn your poultry flock into a financially sustainable enterprise. And if you live in a predominantly rural area with a limited customer base—don't give up! You may be able to contract with an expanding integrator, pursue Internet sales, or even form a cooperative like the turkey growers of Michigan (see Farm Profile: How Cooperation Saved Turkey Farms from Death by Dis-integration).

In the following section, *Marketing Basics*, we briefly describe the need for a marketing plan. Then we discuss buyers and how to go about reaching them. Next, you'll get a brief glimpse of traditional, ethnic, and other alternative poultry products. We quote relative egg and poultry meat product prices when available. Finally, in *Legal Considerations*, state and federal food safety licensing, packaging, labeling, and handling regulations are discussed.

MARKETING ALTERNATIVES

Marketing Basics

The market can make or break your poultry enterprise. You shouldn't consider raising birds without a clear marketing plan, particularly if you're interested in selling value-added products. Why? Because poultry is the most vertically integrated of all industries in U.S. agriculture. Until recently, farmers had few opportunities to produce and market poultry independent of the "big ten" processors (Cunningham, 1999). And while new, specialty markets have emerged, they remain small volume and quite competitive at the wholesale and retail levels.

Even if a seemingly bottomless market exists, you still need to determine how you will reach it and whether the prevailing market price is profitable for your farm. You will have meat inspection regulations and handling requirements to consider. And, if you are thinking about signing on with an integrator, you'll need to be aware of contractual obligations and expectations.

As you explore ideas for poultry production, give some thought first to who your buyers are, what type of products they want, and what they might be willing to pay. If you think you have a promising marketing opportunity on your hands, then begin talking with family and experienced poultry growers about how best to:

- Identify potential markets
- Explore market demand in different locations
- Learn about buyers' product needs and wants
- Identify products that meet buyers' needs
- Research competition
- Track market prices
- Distribute (direct, wholesale, retail, contract)
- Comply with food safety regulations
- Develop a promotional plan

Markets and Buyers

As a poultry grower, you have two marketing alternatives: You can (1) sell to an intermediary who markets your product or (2) sell direct to the final buyer. We briefly review the advantages and disadvantages of these marketing alternatives below. Take these into consideration when developing a marketing plan for your poultry products.

Intermediary Marketing. Marketing indirectly through an integrator, retailer, or cooperative has some very appealing advantages. These "intermediaries" take on the majority of distribution and promotional responsibilities, while in some cases guaranteeing prices (and your income) for the year. In return, however, intermediaries expect that products meet very specific delivery guidelines and can take a significant cut of your profit. You will be required to satisfy the needs and wants of the end market (or individual consumer) as well as the delivery and packaging needs of intermediaries themselves. Below is a brief description of three intermediary buyers: integrators, retailers/wholesalers, and cooperatives.

Integrators. The majority of today's poultry growers contract with integrators for the production of chicken broilers and turkeys. The integrator is their buyer. Integrators arrange for processing, take care of sales, and absorb market risk related to price fluctuations and demand shifts. Integrator needs and wants are outlined in formal contracts that detail bird breed, weight, "catch" date, and payment schedule. In this case, it will be very clear what your "buyer" needs and wants.

Retailers and Wholesalers. Many small-scale poultry farmers have been quite successful marketing through wholesalers and retailers such as community-oriented grocery stores and gourmet restaurants. But success does not come easy. You will need to satisfy delivery and handling requirements as well as packaging requests specific to each retailer and/or wholesaler. Moreover, you will need to keep in contact regularly with your buyers to learn about their upcoming needs and to communicate your product availability. One local chef, Mike Phillips, had this advice for farmers interested in working with chefs: stop by and introduce yourself in person; drop off samples; promise regular delivery service; and supply references. "Try to provide a consistent, high quality product. As a chef, I need to know that the chicken I served last week will look and taste the same again this week."

MARKETING ALTERNATIVES

Cooperatives. Formal cooperatives and other collaborative marketing groups are typically owned and operated jointly by grower-members. Some cooperatives market together, others process together, and some do both (see Farm Profile: How Cooperation Saved Turkey Farms from Death by Dis-integration). In the case of marketing cooperatives, a board (composed of members) usually arranges for the sale of members' products through other intermediaries such as processors, wholesalers, and retailers. Cooperative benefits are usually distributed on the basis of use and a delivery volume may be required. You can expect to pay a fee for processing and marketing services, and you may have to purchase shares and volunteer time when joining the cooperative. Some marketing cooperatives, such as Organic Valley™ Family of Farms, may also require you to follow management guidelines. For more information about marketing through a cooperative, see *Collaborative Marketing: A Roadmap and Resource Guide for Farmers* (in **Resources** under *Marketing*).

Direct Marketing. Direct market buyers are, in some cases, the same folks who shop at large retail grocery stores. They may seek you out at the farm, at the farmers' market, or over the Internet. Most of these individual buyers are looking for a product that is different from the industry standard.

Selling direct to individuals and families via farm stands, farmers' markets, and subscription will generate more income up front. Without an intermediary to take a cut, you'll be free to pocket the full retail value for your birds and eggs. Sound too good to be true? Well it may be. Remember that marketing direct *takes time* and can be risky. What happens if your buyers head south in the middle of winter and you're left with a perishable product on your hands? Meat can be frozen, but eggs often have to be dumped if the market slows beyond expectations (see Farm Profile: "Traditional" Doesn't Mean "Old-fashioned" on the Dickel Farm). Moreover, as noted by Drake University law professor Neil Hamilton, the closer you get to the final customer, the more liability you assume for food safety. Direct market price premiums are the reward for taking on the promotion responsibilities, food safety liability, and sales risk usually adopted by intermediaries. (Hamilton and Hamilton, 2004).

Knowing your customers' preferences is of utmost importance when marketing direct. Don't assume all buyers will be alike, particularly if you intend to target ethnic markets, where cultural nuances may be subtle but significant. Minnesota farmer Gerald Dammann, for instance, says it took him a full year to figure out that his Hmong buyers were asking for Muscovy—"ducks that didn't quack." Sometimes, when selling to a large-scale integrator, for example, uniformity may be of the utmost importance. In the conventional industry, automated processing equipment is designed to handle a specific carcass size. Odd-sized birds cause problems. On the other hand, direct marketers like Ron and Sheila Hamilton of Sunworks Farm, say size variability can be a benefit because some customers prefer small birds while others prefer larger birds (Hamilton and Hamilton, 2004).

Figure 7: Ethnic Poultry Buyers

It might pay to specialize in less traditional U.S. species (e.g., squab) and breeds (e.g., black-footed chicken) in order to service a small retailer who caters to ethnic markets. Many retailers in the Upper Midwest are importing specialty poultry products from Canada and California because of the lack of local suppliers and growers. If you are willing to learn about the needs of another culture – to learn about their religious practices, holidays, and traditional meals – you may be able to earn a premium, even for parts such as chicken feet and offal that are considered unwanted in the popular market.

Hmong communities in Wisconsin and Minnesota represent one such ethnic community. Hmong prefer whole birds: skin, fat, organs, and all. They also prefer fresh, custom-butchered meat that they can share with their extended families. Research conducted by Cooperative Development Services on behalf of the Minnesota Food Association found that Hmong prefer not to buy popular brands of chicken but prefer to eat meat that is leaner and tougher than conventional meat. They prefer a variety of black chicken with black feet. Somali and Hispanic communities may represent other poultry marketing opportunities in the Upper Midwest.

Source: Cooperative Development Services, 2001.

Always talk with your prospective buyer to learn about his or her preferences for different species, breeds, taste, freshness, bird color, processing, dressed weights, and packaging, as well as needs for seasonal or holiday meals. Packaging, labeling, and the language used to describe your products can significantly affect sales. Words such as "pastured" or "organic" may appeal to one group but turn off another (see Figure 8).

Figure 8: "Free-Range" May Not Be Best Choice of Words

When asked about the terms free-range, pasture-raised, grass-fed, and natural, a group of 77 Midwest consumers said free-range was not their first choice. They largely associated the term with chickens, but some mentioned western range-fed cattle. Respondents had clear ideas about what this term means, some positive, but most said this term adds little or no value to the product. A few said it might even reduce the value of the product as the term has negative connotations for them. One respondent said, "I see tough, stringy little chickens." The term "pasture-raised" was favored by this focus group. Your customers may not be averse to the term "free-range," but the term "natural" or "home-raised" might turn them off. It's your job as a direct marketer to find out. Try asking. You'll learn a little more about your customers and they'll learn a little more about you. It's a good opportunity to educate them about how you produce the meat and eggs they enjoy.

Source: Shelquist, 2002.

As an independent marketer, you must identify customers' needs and wants. Don't rely on a hunch or even advice from your neighbor. Expect to invest time and effort learning about buyers, because it is critical for business. Make phone calls, visit farmers' markets, or conduct your own survey of retailers. Every buyer is unique; communication is the only way to really "know your customer" and ensure future sales for your poultry enterprise.

Poultry Products

When you hear the words "poultry products" you probably think "chicken" and "eggs." Chicken and eggs remain staple products in most American households and are considered commodities by many in the agriculture industry. At the same time, however, chicken, eggs, and other poultry products are becoming more differentiated—that is, eggs and poultry meat are now distinguished by management practice, taste, packaging, and health attributes. Gourmet markets exist for "exotic" meat that comes from captive game and heritage turkey breeds, as well as certified organic and "pastured" poultry farms. The egg market, too, is now broken up into niches for brown-shelled eggs, duck and quail eggs, organic eggs, Omega-3 enriched eggs, and even blue or colored chicken eggs from breeds like the Ameraucana.

Additionally, some growers are developing markets for such products as composted manure, captive wild game stock, exhibition-quality birds, and even specialty feather production. In Minnesota, for example, one poultry producer arranged to sell turkey necks, with feathers intact, to the owner of a local sporting goods store for the manufacture of fly fishing lures. Don't be afraid to explore or create new markets.

Below is a brief background of poultry egg and meat products as well as relative prices when available. Use this information as a starting point. Then do your own research to learn about product demand, competition, and marketing opportunities in your area.

Table eggs. Farm-fresh eggs are usually one of the first things to sell out at farmers' markets. On average, every American consumes 250 eggs annually (USDA, Economic Research Service, 2004). That's a lot of eggs! If you're thinking about tapping into this market be sure to explore customer preferences for egg variety (chicken, goose, duck), color (white, brown, blue), nutritional content (Omega-3, cholesterol—see Figure 10), size (small, medium, large, extra-large, jumbo) and packaging (bulk, half dozens, recycled packaging). All retail eggs come sized and graded by freshness, interior egg quality, and shell appearance.

Pease eggs at Minneapolis Farmers' Market.

The majority of white-shelled eggs typically found in supermarkets across the country come from large farms with in-line processing (where eggs move directly from birds through processing to egg cartons). These eggs have a lighter colored yolk than eggs coming from pasture-raised birds. Conversely, eggs from hens raised on pasture (where they consume legumes, grass, and insects) often have orange yolks. Some growers and consumers say these eggs have more flavor than eggs from non-pastured birds (see *Pasture Perfect: The Far-Reaching Benefits of Choosing Meat, Eggs and Dairy Products from Grass-Fed Animals* in **Resources** under *Poultry Products*).

Figure 9: Nutritional Content of Eggs

TYPE OF EGG	PROTEIN (g)	FAT (g)	CHOLESTEROL (mg)	CALORIES (per 100 grams)
Chicken	12.6	9.9	423	147
Quail	13.1	11.1	844	158
Turkey	13.7	11.9	933	171
Duck	12.8	13.8	884	185
Goose	13.9	13.3	852	185

Source: Tecstra Systems Corporation, 1999.

Buyers are willing to pay more for egg shell color, nutritional content, and even management practices such as organic and pastured poultry. Eggs advertised as having a higher Omega-3 content, for instance, sell for twice the price of standard white-shelled eggs. Certified organic, Omega-3 enriched eggs sell for four times the price of standard white-shelled eggs (see Figure 10).

You should know, however, that specialty product premiums carry a price of their own. Truth in advertising laws require that any product claims you make must be accurate and verifiable. In order to advertise your eggs as Omega-3 enriched you must have each batch of eggs tested to verify your claim. Likewise, organic eggs must be certified and come from hens that are fed higher priced organic feed and allowed access to the outdoors (see *Organic Management* in the Poultry Management Alternatives chapter for information about organic certification requirements). Do your homework to find out which product premiums truly pay.

Figure 10: Relative Prices of Table Eggs

BRAND	LABEL CLAIM	% ABOVE BASE PRICE	RELATIVE PRICE ($/BASE PRICE)
Byerly's	Grade AA, large, white	BASE	BASE
Sparboe Farms	All-natural Grade A, large, brown	56	1.5
Sparboe Farms "Egg Sense"	All-natural, Omega-3 (250 mg), cage-free, brown	99	2.0
Sparboe Farms "Egg Sense"	All-natural, Omega Plus (250 mg Omega-3), white	125	2.3
Larry Schultz	Organic, brown	151	2.5
Egg Land's Best	Cage-free, vegetarian-fed, Omega-3 (100 mg), brown	160	2.6
Larry Schultz	Organic, extra-large, brown	160	2.6
Promised Land	Organic, AA, brown	238	3.4
Organic Valley	Organic, brown	247	3.5
Organic Valley	Organic, Omega-3 (225 mg), brown	298	4.0

**All prices for Grade A, large eggs unless otherwise noted.*
Source: Collected at Byerly's Retail Grocery Store, Minnetonka Location, June 14, 2004.

Poultry. Poultry may be sold whole or cut-up, fresh or frozen. The majority of chickens (90 percent) and turkeys (50 percent), however, are sold cut-up as wings, thighs, breasts, and legs, owing to the rise in consumer demand for convenience foods (Olinger, et al., 2000). This means that as a farmer or processor, you will need to invest more time preparing your meat for the market unless you can tap into specialty or ethnic markets that demand whole or live birds (see *Farm Profile: Alternative Species—Muscovy Duck* for an example of live market sales).

Figure 11: Fresh vs. Frozen Poultry

Fresh and frozen poultry are two different markets and require different distribution channels. Consumers are accustomed to seeing only fresh meat in most supermarkets, but many natural foods stores do not have a fresh meat counter. Restaurants usually prefer fresh meat delivered once or twice weekly. You can sell fresh meat to restaurants and market frozen meat as a secondary product to other channels. There is a stigma against frozen meats, but it may be possible to establish a marketing strategy that promotes a frozen sustainable product over a fresh, unsustainable product.

Source: Fanatico and Redhage, 2002.

Poultry meat from broilers managed in confinement is considered fat or juicy, and tender, when compared to meat from birds raised on pasture (Lehnert, 2002). That said, birds raised on pasture are characterized by some as "more flavorful." As with eggs, some buyers are willing to pay more for perceived taste, health, animal welfare, and environmental benefits.

In Minnesota, certified organic fresh whole chicken sells for almost twice the price of regular fresh whole chicken at the same retailer quoted for egg prices (see Figure 12). In East and West Coast markets, Rodale's New Farm Price Index reported organic broiler prices that were almost double conventional prices during May 2004. Products from chickens raised on pasture often sell for prices between conventional and certified organic prices.

Figure 12: Relative Poultry Product Prices – Meat

BRAND	TYPE OF BIRD	LABEL CLAIM	% ABOVE BASE PRICE
Gold'n Plump	Chicken	All natural (no hormones, preservatives), whole bird fresh	BASE
	Chicken	All natural (minimally processed, no artificial ingredients, no antibiotics), vegetarian grain-fed, air-chilled	11
Kadejan	Chicken	All natural (minimally processed, no antibiotics, growth stimulants or animal biproducts), free-range, whole bird, fresh	38
	Chicken	Organic, free-range, air chilled, whole, fresh	94
Honeysuckle White	Turkey	Premium quality, young, whole, frozen	BASE
	Turkey	Young, whole, frozen	16
Empire Black	Turkey	All natural (minimally processed, no preservatives), young, whole, frozen	132
	Cornish Rock Game Hen	Whole, frozen	BASE
Maple Leaf Farms	Duckling	Whole, frozen, with orange sauce packet	9
	Pheasant	Whole, frozen	225
Manchester Farms	Quail	Farm-raised, jumbo, whole, frozen	315

Source: Collected at Byerly's Retail Grocery Store, Minnetonka Location, June 14, 2004.

The USDA groups poultry into "ready-to-cook" categories for grading and marketing purposes. Categories are determined by the bird's age at slaughter and by meat tenderness. "Fryers" belong to one category while "roasters" belong to another (USDA, Agricultural Marketing Service, 2002). It is your job to find out what type of bird (species, breed, age, size), texture and flavor your customers prefer, as well as how much they are willing to pay for the difference.

Legal Considerations

Products that come from animals are perishable and what regulators call "potentially hazardous foods." This means that disease-causing bacteria will multiply quickly unless controlled (Lehnert, 2002). For this reason, state and federal food safety rules have been designed to protect consumers from food-borne pathogens. Food safety rules control which products must be inspected, as well as how they should be packaged, labeled, and stored. In short, regulations limit what you can sell and where. **You must check with the regulatory agency in your state to determine the rules you must follow** (see Figure 13.)

Packaging and labeling. Farmers who sell eggs generally are permitted to use secondhand cartons as long as the cartons are clean and information relating to the original packer is removed (particularly pack dates and freshness dates). In Michigan, however, growers are strongly encouraged (though not required) to purchase new cartons when selling eggs anywhere off the farm. If you do recycle cartons, new labels with the farm name, address, egg grade, egg size, pack date (in Julian calendar format with 1 to 365 days) and a "freshness" or expiration date (not to exceed 30 days from the pack date) must be added when selling through a retailer. Moreover, the following safe handling language is legally required by the Food and Drug Administration on all cartons packed for retail sale: "To prevent illness from bacteria: keep eggs refrigerated, cook eggs until yolks are firm, and cook foods containing eggs thoroughly." While this may seem cumbersome, it is law and will afford you some legal protection should a customer become ill due to improper handling. Preprinted handling labels describing how to store and prepare eggs are available from www.eggcartons.com.

Packaging regulations for poultry and other meat products were established to maintain freshness, quality, and food safety. Packaging chemicals and colorants can migrate to food and for this reason are considered an indirect additive. All additives must be approved by the U.S. Food and Drug Administration (FDA). Poultry and other meat processors are required to use FDA-approved packaging materials and maintain on file a "statement of assurance" or guarantee from the packaging supplier to verify that packaging meets codes under the Federal Food, Drug and Cosmetic Act (USDA, Food Safety and Inspection Service [FSIS], 2000).

Desenses' organic chickens for sale at the Minneapolis Farmers' Market.

All poultry meat packaging must be labeled with the product identity and the state or federal processing inspection label (if applicable). Product identity includes the name, address, and zip code of the farmer, packer, or distributor. All labels must be submitted for approval to the respective state or federal inspector at the processing plant (where applicable) prior to using the inspection legend on any packages (MDA, www.mda.state.mn.us/dairyfood/factsheets/eggsafety.htm). Additionally, federal law created under the Nutritional Labeling and Education Act, states that all processed products must include a nutritional label on the packaging. There is a small business exemption, however, that applies to the majority of farmers who direct-market their products; nutritional labels are not required if the farm's total annual sales (of food and nonfood products) totals less than $500,000 per year, or if the total annual food sales amount to less than $50,000 per year (Hamilton, 1999) (see **Resources** under *Labeling*).

Handling and Storage. Most states have storage and handling guidelines for poultry, eggs, and meat products. Guidelines state that all eggs, for example, must be refrigerated at 45 degrees F or less after grading and be maintained at this temperature during storage and handling (MDA, www.mda.state.mn.us/dairyfood/factsheets/eggsafety.htm). If you intend to sell your eggs and meat off-farm, be sure you have the proper equipment to keep products cool during transport and while at the market if you sell direct. Equipment need not be fancy. In some states, like Wisconsin, a cooler is all that is needed. In other states, such as Minnesota, you may be required to use mechanical refrigeration. **Check with your state Department of Agriculture to verify local requirements.** Moreover, make sure your buyers know how to store and cook products properly. The USDA Food Safety and Inspection Service offers clear, well-written fact sheets about food handling in consumer language (See *Basics for Handling Food Safely* in **Resources** under *Food Safety*).

Licensing. Farmers who sell eggs from their farm are exempted from obtaining a food handler's license. In most states, a handler's license will be required when selling eggs through an intermediary (retailer, wholesaler, restaurant) or even at a farmers' market. Retail buyers, in particular, are obliged to purchase products only from "approved" sources (in other words, from licensed handlers). Food handler's licenses are renewable annually. Applications can be obtained by contacting your state department of agriculture (see Figure 13).

Frozen chickens for sale at Minneapolis Farmers' Market.

Figure 13: State Food Handler Licensing Contacts

The following agencies are responsible for ensuring food safety at the state level. For accurate information about food-borne illnesses, food handler licenses, and regulations, contact a department official in your state.

Michigan:	Michigan Department of Agriculture, Food & Dairy Division PO Box 30017, Lansing, MI 48909 (800) 292-3939
Minnesota:	Meat, Poultry, and Egg Inspection Division, Minnesota Department of Agriculture 625 N. Robert St., St. Paul, MN 55155 (651) 201-6027
Wisconsin:	Wisconsin Department of Agriculture, Trade and Consumer Protection for Meat PO Box 8911, Madison, WI 53708-8911 (608) 224-4700

Explore Your Alternatives

Think you have good idea for marketing your poultry products? We recommend putting together a marketing plan. Include in it a description of customer(s), competition, market trends, products, distribution alternatives, pricing options, and advertising ideas (see Figure 14).

Identify your buyers first to find out what they need *before* putting together a product list or exploring production alternatives. Every buyer is different. Next, research your competitors and local prices. This step may be as simple as visiting your local grocery store or paging through the *Michigan Farm Market, U-Pick and Ag Tourism Directory* (www.michigan.gov/mda), the *Minnesota Grown Directory* (www.minnesotagrown.com) and the *Something Special from Wisconsin Directory* (http://www.savorwisconsin.com/). You may be surprised at how many other growers have already put your idea into action! Find out who else is in the market and what they offer. This research will help you determine market viability for birds, eggs, and other poultry products.

Figure 14: What's a Marketing Plan?

A marketing plan details your knowledge of the market, your customers, and their wants. It should describe your product and how it meets the need or preference of your target customers. Additionally, marketing plans typically include information about competitors (are there any and, if so, how will you compete?), your pricing strategy, promotional ideas, and distribution plan. The outline below should help get you started.

- MARKETING GOALS
- CUSTOMER DESCRIPTION
- COMPETITOR DESCRIPTION
- PRODUCT DESCRIPTION
- PROMOTIONS AND DISTRIBUTION STRATEGY
- PRICING OPPORTUNITIES AND PLANS
- SALES PROJECTIONS
- BREAK-EVEN ANALYSIS TO DETERMINE MINIMUM SALES VOLUME

Source: DiGiacomo, et al., 2004.

Once you have a feel for which products to market and how much they will sell for, try to develop sales estimates. Calculate your expected annual or monthly sales volume and gross sales revenue. You'll need this information later to make decisions about whether or not to expand your current poultry enterprise or to start something new.

For more information about putting together a marketing plan and developing sales estimates, see the National Center for Appropriate Technology (NCAT) publication *Growing Your Range Poultry Business: An Entrepreneur's Toolbox* or the Minnesota Institute for Sustainable Agriculture's *Building a Sustainable Business: A Guide to Developing A Business Plan for Farms and Rural Businesses* in **Resources** under *Budgeting, Enterprise Planning and Recordkeeping*. Both of these publications offer excellent market research suggestions.

PROCESSING ALTERNATIVES

Background

Once you know more about your buyers, what products they like, and what they're willing to pay, it's time to think about how you will get your eggs and/or birds ready for the market. In other words, how will you process and package? Will you hand-clean and candle eggs? Is there a custom facility located nearby for turkeys? Will you process broilers on-farm? More importantly, do you *want* to process on-farm? Or as one experienced producer asks, "Does the smell of wet feathers and chicken guts bother you?" (Callister, 2004).

Processing means making your poultry customer- or kitchen-ready. Table eggs and poultry meat can be processed on the farm or off-farm through a small-scale facility.

If you're looking at processing birds in small batches, on-farm processing may be an economical as well as necessary option. According to Anne Fanatico, "There are very few independent government-inspected processing plants where producers can take their birds for processing, and large-scale integrated companies do not process for independents" (Fanatico, 2002a). Census data confirms that more than 60 percent of all chicken and turkey processing plants exited the industry during the 1967-92 period — most of them small capacity plants. The majority of processing takes place at large-scale plants owned by integrators. Consequently, many farmers interested in raising small flocks or farming independently from integrators, do their own processing on the farm.

In the next section, we discuss egg processing basics, on-farm processing, and legal considerations associated with egg-processing. Then, poultry meat processing is addressed in the same manner, beginning with an overview of poultry meat processing basics (what's involved in processing live birds), how producers are processing on-farm, and what options they have for hiring the work done off-farm. In addition, we briefly describe licensing and other legal considerations associated with processing birds on- and off-farm.

Table Eggs

Egg processing refers to the collection, cleaning, candling, grading, sorting, and packing of fresh eggs. Some eggs are processed into "value-added" products such as dry whole egg powder or frozen egg whites for use by food manufacturers and commercial bakers. Most of this processing is done commercially, not by individual farmers. For this reason, the processing information presented below is limited to table eggs — eggs sold fresh in cartons.

Processing Basics. Cleaning, candling, and grading are what you might call egg processing "basics." These are also the most labor-intensive activities. Legally, you can do all of this processing work on the farm in your kitchen. Additional information about these and other processing basics can be found in **Resources** under *Processing*.

Cleaning. Although management practices dramatically affect the number of eggs requiring cleaning, on average approximately 30 percent of your eggs will require cleaning to remove dirt, fecal contamination, and blemishes (Plamondon, www.plamondon.com/poultryfaq.html). They may be cleaned using "dry" or "wet" methods. The traditional dry cleaning method, preferred by many producers and packers because it does not remove eggs' outer cuticle or protective waxy layer, can be done using an "abrasive" such as a plastic brush, loofah, or sanding sponge (see **Resources** under *Suppliers*). Wet washing is done by rinsing eggs with running water that is 20 degrees F warmer than the egg (bacteria can migrate through the shell when cooler water is used) (Fanatico, 2003b). Some producers use hydrogen peroxide, commercial dishwashing powder, or bleach to clean eggs. Be sure to use USDA-approved products and to follow package recommendations. Moreover, be careful about using these cleaning aids if you plan to sell your eggs in specialty markets. Check with your state Department of Agriculture or organic certifier to learn more about what is permitted in your situation.

Candling. Candling, the use of a light to see through egg shells, is a well-known method for checking interior egg quality and fertility. Farmers use candling equipment to check eggs for cracks, blood spots, embryo development, and air cell size (air cell size measures freshness). Brown eggs are considerably more difficult to candle because blood spots tend to blend in and air cells are harder to detect. Candling is not necessary when selling eggs on the farm, or in some states, such as Wisconsin, when selling to your customers at farmers' markets. Be aware, however, that brown eggs have a higher tendency for blood spots and a single "bad" egg can turn off customers. For this reason, candling, even though not required, may be a good idea.

Processing and sorting for sale on Schlangen's farm.

Grading. Eggs may be graded as AA, A, and B and are sized by weight. Grades represent egg freshness (interior egg quality), egg shape, and shell appearance. Grade A and AA eggs have a minimal air cell, a clean shell with no cracks, ridges, stains, rough texture, or other "defects." They must be uniform in size to fit cartons. Grade B eggs may be sold at farmers' markets. Only grade A and AA are permitted for sale to commercial buyers. Egg size is determined by weight. The four weight classes most commonly found in supermarkets are: Jumbo, Extra-large, Large, and Medium. For more information about how to determine egg grade and size, contact your state Department of Agriculture or consult the USDA's *Egg Grading Manual* (see **Resources** under *Grading*). Some states offer grading workshops and a free air cell gauge that can be used to determine egg freshness.

On-Farm Processing. What do you need to process eggs on the farm? Not much unless you plan to handle hundreds of eggs or more each day. Most cleaning is done by hand in the kitchen on farms with smaller flocks. The work can be tedious, but has the advantage of requiring little equipment (Plamondon, www.plamondon.com/poultryfaq.html). Wet washing can be done using running water in the sink (submersion is not allowed). Dry washing is done by hand with the following supplies: plastic brushes, scrubbing pads, egg soap or cleaning powders, baskets, and scales. For packaging you'll need egg cartons or flats and labels.

Automated equipment is also available to help with both wet and dry cleaning if you process on an intermediate scale. Egg processing machines are designed to handle between 200 to 2,500 eggs per hour. Some of these machines will candle, sanitize, and grade. Most of them can handle chicken, duck, goose, turkey, and quail eggs. This technology does not come cheap, however. NCAT Agriculture Specialist Anne Fanatico has reviewed small- and intermediate-scale cleaning equipment in an *APPPA Grit* article, *Egg Processing by Hand*. Contact the American Pastured Poultry Producers Association (see **Resources** under *Agencies and Organizations*) for a copy of the article. As with cleaning, candling can also be done by hand with the help of simple equipment. Hand-held candlers are available (see **Resources** under *Suppliers*).

Legal Considerations. Technically, table eggs are considered a raw agricultural product and therefore are exempt from licensing obligations (Kevin Elfering, Dairy, Food and Meat Inspection Division, MDA, personal communication, 2004). This doesn't mean, however, that table eggs aren't subject to regulation. Federal and state regulations concerning egg processing are fairly straightforward. Food regulators consider eggs a raw agricultural commodity or a product of the farm, and exempt from licensing laws. However, federal egg processing guidelines, created under the federal Shell Egg Surveillance Act, govern the registration and inspection of egg producers who manage large flocks of 3,000 or more hens. Similarly, state guidelines apply to producers who market eggs from flocks of less than 3,000 hens (see Figure 15).

Figure 15: Federal and State Egg Processing Registration Requirements

Information applies to chicken, turkey, duck, geese, and quail eggs.

Large Flock Owners (more than 3,000 hens)
Producers who own 3,000 layers or more and market eggs are required to register with their state Departments of Agriculture. The federal government does not require a processing license but all registered farms are inspected four times each year in accordance with the Shell Egg Surveillance Act. Federal inspections are concerned with facility sanitation and are usually carried out by state Department of Agriculture employees. In some states like Minnesota, laws require additional inspections to ensure egg grading is performed correctly.

Small and Medium Flock Owners (3,000 hens or less)
Small- and medium-size flock owners are not required to file for a federal or state processing license nor are they required to register as stipulated under the federal Shell Egg Surveillance Act. In Wisconsin, producers are permitted to sell an unlimited number of "nest run" or ungraded eggs on the farm without needing any sort of handling license (see Poultry Marketing Alternatives under *Legal Considerations*). However, small- and medium-size flock owners who wish to sell through retail outlets are responsible for registering with their state Department of Agriculture to become an "approved source." Retailers are permitted to purchase eggs only from approved sources.

Source: Kevin Elfering, Dairy Food and Meat Inspection Division, MDA, Personal Communication, 2004.

State guidelines concern egg cleaning, grading, packing, labeling, and handling. Grading guidelines apply to all producers (large or small) who sell eggs at farmers' markets and through retail outlets. Generally, all eggs sold off-farm must be graded, although some states, as Wisconsin, allow the sale of ungraded or "nest-run" eggs on the farm and at farmers' markets (so long as they are labeled as such). Farmers may do their own grading. Packaging, labeling, and handling are discussed in the chapter on Marketing Alternatives under *Legal Considerations*.

Contact your state Department of Agriculture to learn more about egg processing requirements in your area.

Figure 16: State Contacts for Egg Processing and Registration Questions

Michigan:	Michigan Department of Agriculture, Food & Dairy Division 350 Ottawa Ave. N.W., Grand Rapids, MI 49503 (517) 373-1060
Minnesota:	Dairy Food and Meat Inspection Division, Minnesota Department of Agriculture 625 N. Robert St., St. Paul, MN 55155 (651) 201-6027
Wisconsin:	Grading, Labeling and Evaluation, Wisconsin Department of Agriculture 2811 Agriculture Drive, PO Box 891, Madison, WI 53708 (608) 224-4714

Poultry

Many poultry growers seek to add value to their birds before marketing. Processing can be done on- or off-farm. Most growers who process their own birds on-farm do so out of necessity. There are few custom slaughter facilities and even fewer organically certified ones.

New on-farm processing building on Jones farm (see Farm Profile: Managment Alternatives–Day-range).

To some, poultry processing includes everything from catching the birds to cleaning up after the last one has been packed and labeled. The Wisconsin Department of Agriculture, Trade and Consumer Protection (WDATCP) defines meat processing as "cutting, grinding, manufacturing, compounding, intermixing, or preparing meat or food products" (University of Wisconsin Extension and WDATCP, 2003). We review these basics, then look at on-farm and off-farm processing options. We follow with a discussion of legal considerations, primarily what kind of inspections and permits you will need to obtain in order to market your product. **You should contact your state department of agriculture early in the process of exploring processing options**, to make sure you're on the right track. Different types of inspection are explained in Figure 19. Your department of agriculture will advise you about inspection requirements based on your envisioned operation and marketing plan. Prepare to invest a significant amount of time getting established: all on-farm processors need to register with their state department of agriculture, develop a processing plan, and, presumably, learn some new skills!

Processing Basics. All birds, whether they are chickens, turkeys, or pheasants, are processed similarly. The same activities must be performed to get your birds ready for market. NCAT Specialist Anne Fanatico (Fanatico, 2003a) describes processing basics as:

- Immobilizing and stunning
- Bleeding and blood recovery
- Removal of feathers through scalding and picking
- Removal of head, oil gland, and feet
- Removal of organs (evisceration)
- Washing
- Chilling
- Cutting up, deboning, and further processing
- Packaging and labeling
- Storing (cooler or freezer)

The only time these processing activities vary significantly is when ethnic or religious slaughter is performed. Ethnic groups may require that birds be slaughtered in a particular way or minimally processed. Black-footed chickens processed Confucian style, for example, have only their feathers, toenails, and beak linings removed. Even at federally inspected plants, like Burt's Hilltop Poultry in Utica, Minnesota, when they are processing Confucian style, no evisceration, chilling, or aging is performed, in accordance with Confucian customs (JoAnne Burt, personal communication, 2004). Minimal processing can save time, but your marketing time may increase to arrange the sale.

On-Farm Processing. On-farm processing is a somewhat unique opportunity for poultry producers. Birds are relatively easy to handle (even turkeys) when compared to other livestock. Most on-farm processing is done manually. Processing volume — more than anything else — will affect labor requirements, equipment choice, facility design, and legal obligations. Two on-farm processing alternatives, manual and mobile, are well-suited for growers interested in butchering 20,000 birds or less each year and are reviewed briefly below. Use this information to begin narrowing your focus, then see **Resources** under *Processing* for more information about the alternative that seems most suitable for your operation.

Manual processing. Manual processing makes it easier to handle a wide variety of species and breeds (automated processing equipment often is designed for specific carcass sizes). This flexibility to process birds of various sizes and species is one of the major advantages of manual processing. Growers who manually process typically handle 50 to 100 birds per day on a seasonal basis (one to thirty processing days per year) (Fanatico, 2003a).

According to Andy Lee and Patricia Foreman, authors of *Day Range Poultry*, on-farm "poultry processing is easily learned, but it takes a few hundred birds to get good at it." Many producers start small—processing 200 birds or fewer each year before graduating to larger volumes. By starting small, you can get by with little expense while developing your skills. The speed at which you process will depend on your routine, number of helpers, equipment, and set-up. Most smaller, on-farm facilities process in batches, so that each processing activity is performed for all birds at once. For instance, all birds would be killed as one batch, then scalded as one batch, then plucked as one batch, etc.

Lee and Foreman recommend that novices allow at least thirty minutes to manually process and package one chicken. Someone more experienced, they say, may be able to process and package the same bird in ten minutes or six birds per hour (assuming minimal equipment and no help). When using equipment that handles at least four birds at a time, experienced processors can handle fifteen birds per person per hour (Fanatico, 2003a). There is some disagreement over how long it takes to process turkeys and other birds. The Foremans claim turkey processing takes at least three times longer than chicken processing (Lee and Foreman, 2002). But Virginia farmer Joel Salatin writes that turkey processing may be a more financially efficient use of your time, "Because the processing procedure is essentially the same for a 15-pound bird as it is for a 4-pound bird, the person hours required per pound of meat obtained are fewer for turkey than for chicken" (Salatin, 1999b). Many people in the industry agree that ducks and geese take longer than chickens *and* turkeys because ducks and geese have more feathers and down, requiring more scald time to remove. The maturity of waterfowl (that is, whether or not "pin" or immature feathers still need to grow out) has a significant impact on processing time (Metzer Farms, 2004).

Most farmers who do their own processing choose to locate these activities away from the house in a dedicated area where water is available (processing requires a lot of water to scald, wash carcasses, chill, and clean up). The site may even be outside, although a major disadvantage associated with outdoor processing is that it is seasonal. On-farm processing facilities may be as humble as a barnyard shed or a more elaborate specialized building. Many on-farm processors use renovated outbuildings, although you may choose to construct a new facility from scratch.

The type of equipment needed will depend on your processing routine and volume (a few birds daily versus a large volume of birds once a month, for example). Several poultry equipment dealers and suppliers are listed in **Resources** under *Suppliers*.

Figure 17: On-Farm Processing Supplies

• Poultry crates	• Brushes and buckets
• Killing cones	• Brooms and mops
• Scalder	• Knives
• Thermometer	• Lung puller
• Picker	• Ice
• Stainless steel eviscerating tables or shackles	• Scales
• Chill tank	• Bags, staples, and clips
• Refrigerator or freezer	• Plastic and metal mesh gloves
• Water hoses (food-grade plastic necessary)	• Hair nets, aprons, and boots
• Sanitizers	

Source: Fanatico, 2003a.

Mobile Processing. The Mobile Processing Unit (MPU) is a relatively new on-farm processing alternative. MPUs are processing plants on wheels; they are custom-built, cooperatively owned and staffed, mobile facilities that travel from farm to farm at butchering time. For farmers who do not have access to a custom processor or who can't justify their own on-farm facility, an MPU may be the answer. "An MPU is a way to start small and spread the equipment cost among a group of producers," note the authors of *Growing Your Range Poultry Business: An Entrepreneur's Toolbox*. "It offers a chance to develop the product, test market, and iron out production problems. The group can later establish a small, permanent plant" (Fanatico and Redhage, 2002).

Several MPUs have been built across the country. Some of the first were constructed in Kentucky, Nebraska, South Dakota, and New York. Most recently, 12 farmers in Michigan experimented with the MPU idea, thanks to funding from the USDA Sustainable Agriculture Research and Education program. In 1999-2000 they worked with Wagbo Peace Center (WPC) and Michigan Department of Agriculture staff to design and build a federally licensed, mobile processing plant. "We determined that it was not reasonable for every farmer to build a processing facility at their farm, and that a much more practical way to approach processing would be to have a portable unit that could be licensed and serve all the small farms in our area," says project leader and WPC Manager Rick Meisterheim (Lehnert, 2002).

The Michigan MPU took approximately 360 hours of labor to complete. The project team retrofitted a used trailer by building an interior wall to divide the scald and pluck area from the eviscerating area. They hired contractors to do the electrical, gas, and plumbing hook-ups. Fanatico estimates that a 400-bird-per-day MPU can be built for $7,000 to $12,000 (Fanatico, 2003a). The Michigan MPU, outfitted with new equipment, cost about $18,000.

In addition to financing, you'll need good organization, plus leadership and management skills in order to successfully process using a MPU. Farmers in Wisconsin, for instance, built an MPU but never really got it off the ground, says Center for Integrated Agricultural Systems' Steve Stevenson, because no one was responsible for the management and maintenance of the processing facility.

The Michigan unit has been successful because WPC coordinates all scheduling and manages fee collection. WPC and members perform maintenance, and new growers must train with a current member before using equipment. Members also trade work on processing days, helping one another. Michigan farm members "have gone above and beyond" to help out with maintenance according to WPC Program Coordinator Jennifer Lewis. "It's a very cooperative effort" (Jennifer Lewis, Wagbo Peace Center Program Coordinator, personal communication, 2004). Four years after processing their first bird, the Michigan growers now handle up to 250 chickens, turkeys, and ducks on butchering days. Rumor has it, one grower will be trying geese soon.

Off-Farm Processing. The majority of processors who offer services to farmers on a custom basis will slaughter, cut-up, bag or package, and label products. There are few custom processors and even fewer certified organic processors. If you are lucky enough to live near a custom processor, you'll still need to check into its reputation for quality, and consider your transportation, time, and expenses (also see Figure 18).

Many off-farm plants use automated equipment and consequently may not be able to process in small batches, or may have equipment sized for only one species or one type of bird (such as broilers). Call processors in your area to learn more about their services—what type of birds they process, if they will work with your own recipes, what type of inspection or certification status they hold, etc.

Figure 18: Ten Questions to Ask a Processor

Below is a sample list of questions you might ask when calling around to local processors. Not all of the questions will be relevant for your situation—choose those that apply.

1. What type of license do you hold?
2. Do you require a minimum order volume?
3. What type (species) of birds do you process?
4. Are you certified organic?
5. Do you offer ethnic slaughter?
6. How far in advance do I need to schedule processing?
7. What type of packaging do you use?
8. Will you use my labels/logo on packaging?
9. Can you process products with my recipes?
10. What are your fees?

A list of Minnesota processors can be found in the *Directory of Custom Poultry Processors in Minnesota*. Wisconsin processors are listed in the publication *Wisconsin Poultry & Egg Directory* (see **Resources** under *Processors*).

Legal Considerations

Poultry meat processing is subject to a host of regulations and oversight by federal and state agencies. Some of the regulations govern facility construction and operations, including building codes and waste management. Other regulations concern the safety and quality of products being processed. Still other rules stipulate how poultry and other meat products must be packaged and labeled. As noted by Fanatico, laws present both opportunities and limitations, particularly for on-farm processors seeking "custom exempt" status (Fanatico, 2002a). We briefly review legal considerations for permits, inspection, grading, and organic certification below (see the chapter on Poultry Marketing Alternatives for information about packaging and labeling requirements). **Always** check with your state department of agriculture for clarification.

Permits and Inspection. As a general rule, all processors — whether they operate on-farm or off-farm — must register with their state Department of Agriculture and undergo facility inspections to ensure that construction, health, and food safety codes are met. [Note: one exception is Wisconsin. If you process on-farm and sell fewer than 1,000 chickens to the public only on the farm (not at farmers' markets or other off-site locations), you are not required to obtain a license or file for exemption status (Terry Burkhardt, Meat and Poultry Inspection Bureau, Wisconsin Department of Agriculture, Trade and Consumer Protection, personal communication, 2004.)]

Inspections, however, are not always required for *birds*. That is, whenever you hear references to "state inspected" or "custom exempt" they concern the inspection and grading of birds (not the facilities). Federal and state laws are fairly clear when it comes to retail marketing: your birds must undergo "continuous" or bird-by-bird inspection conducted by state or federal employees (though exemptions exist for growers who process fewer than 1,000 birds in some states, such as Wisconsin).

When it comes to direct marketing the rules vary by state and can get a little confusing. In fact, law professor Neil Hamilton states in his book, *The Legal Guide to Direct Farm Marketing*, that "federal exemptions, especially for direct marketing of between 1,000 and 20,000 birds, are so poorly written it is hard—even for government officials—to determine exactly what they mean" (Hamilton, 1999).

Don't let this discourage you! Several excellent resources are available to help you navigate the rules. In Michigan, for instance, Richard Lehnart conducted a thorough review of processing regulations as they apply locally and compiled his findings in a publication titled *On Farm Processing of Pastured Poultry* (see **Resources** under *Processing*).

Moreover, state officials can be very helpful. According to Terry Berkhardt, with the Wisconsin Meat Poultry and Inspection Bureau, the state has new construction guidelines and remodeling recommendations on hand. Department staff are available to visit your site **before you apply for a license** and offer advice about how best to set up your processing facility so that it satisfies local codes and regulations. Staff at the Minnesota Department of Agriculture's Dairy Food and Meat Inspection Division are equally helpful.

State and federal processing regulations and questions you should ask your state inspector are outlined in Figure 19 and Figure 20. Use this information to begin formulating your own questions and then **check with your state department of agriculture** to learn more about how federal exemptions for poultry processing are being interpreted and enforced in your area.

Figure 19: Poultry Processing Inspection

FEDERAL INSPECTION

Plants with federal processing status have on-site USDA inspectors. Inspectors monitor birds as they are being processed to ensure food safety and quality. After processing, the birds can be labeled with the USDA seal of inspection. The major advantage of federal inspection is increased marketing flexibility. Birds from plants that are federally inspected can be sold to individuals at farmers' markets and to retailers anywhere in the country either through interstate commerce or the Internet. Moreover, because customers in virtually all markets are concerned with food safety they may be more likely to purchase from someone whose products are labeled as "USDA inspected."

STATE INSPECTION

Minnesota and Wisconsin operate state inspection programs (Michigan does not). In Minnesota, plants may obtain E2 or "Equal To" status meaning that they follow federal standards by requiring on-site inspection of birds antemortem and postmortem. In Minnesota and Wisconsin, products processed at state-licensed plants can be labeled with state "Inspected and Passed" language. The same advantages of processing through a federally inspected facility apply to state-inspected plants, except birds processed at state-inspected plants can be sold only in the state in which they are processed (no Internet or state-to-state sales permitted.)

Contact your state agency to learn more about inspection services, particularly if you plan to process in small batches (most states do not require minimum volume to qualify for inspection services). Lists of *state-inspected* meat and poultry processing plants are available from the Minnesota Department of Agriculture's Meat, Poultry and Egg Inspection Program and the Wisconsin Department of Agriculture's Meat and Poultry Inspection Division—Michigan does not operate a state licensing program (see **Resources** under *Agencies and Organizations* for contact information).

CUSTOM EXEMPTION

Processors who qualify for a federal and/or state exemption are small, custom processors that do not have a regular inspector on hand to conduct antemortem and postmortem inspection of the birds. So why doesn't everyone apply for a custom exempt license? There is one major disadvantage: generally you are not allowed to sell your poultry products to the public — directly or indirectly — if they have been processed at a custom exempt facility. Some states, like Wisconsin, do make exceptions and allow farmers to market a small volume (1,000 birds or fewer) of uninspected birds off-farm so long as the birds are labeled with exemption language and are minimally processed (they may be sold whole or cut-up but may not be de-boned, ground, smoked, etc.).

OTHER EXEMPTIONS

Other exemptions, such as the Small Business Enterprise exemption, religious and cultural exemptions exist. Each exemption comes with a different set of rules concerning the sale of birds. Check with your state officials to learn more.

Figure 20: Ten Questions to Ask Your State Inspector

1. What type of license do I need to process on my farm?
2. Will this license cover direct sales to consumers (e.g., at farmers' markets)?
3. Will this license cover sales to retail establishments?
4. How must my products be labeled?
5. What are filing procedures for all licenses needed?
6. Do I need to have my facilities and birds inspected?
7. Who will conduct the inspection?
8. Is the license renewable annually?
9. What are the licensing fees?
10. Is there someone that can help develop my processing plan?

Figure 21: Inspection Overview for Minnesota*

	FEDERALLY INSPECTED	STATE INSPECTED	CUSTOM EXEMPT
Facility inspected	—✔—	—✔—	—✔—
Birds inspected (continuous)	—✔—	—✔—	
Can de-bone, grind, smoke meat	—✔—	—✔—	
Sell on the farm	—✔—	—✔—	—✔—
Sell at farmers' markets	—✔—	—✔—	
Sell to retailers/wholesalers	—✔—	—✔—	
Interstate sales (sell in any state including your own)	—✔—		
Intrastate sales (sell in your state only)		—✔—	

*These may not apply in your state. **Always check with your state Department of Agriculture officials to verify inspection requirements in your state.**

Grading. Poultry meat (either whole carcasses or parts) is graded A, B, or C. The USDA has developed Quality Poultry Grade Standards for whole carcasses and parts (including boneless and skinless parts). Grades, which apply to all poultry species including chickens, turkeys, ducks, geese, guinea fowl, and pigeons, are determined by meat yield, fat covering, and appearance (or lack of defects such as skin cuts and tears, broken bones, and discoloration of meat and skin). In order for a product to be labeled as USDA Grade A, B, or C, meat must first be inspected for wholesomeness by the USDA's Food Safety and Inspection Service and individually graded by a plant grader. A sample carcass or part is then taken by a USDA grader who determines the final, official grade (Agricultural Marketing Service, USDA, www.ams.usda.gov/poultry/grading/pygrd.htm). For more information about USDA quality grading standards, see the *USDA Poultry-Grading Manual* listed in **Resources** section under *Grading*.

Organic Certification. Any facility that processes organic raw ingredients into another product (roasting, grinding, recombining, cutting, packaging, etc.) must be certified organic before products leaving the facility can be labeled as such. This means that all ingredients and processing aids (for example, filters) must conform to organic regulations and organic integrity must be maintained while in use at the processing facility. See the National Organic Program (NOP) Regulations, online at www.ams.usda.gov/nop.

Your organic certifier will require an "Organic Handling Plan" when you apply for processing certification. The Plan must describe:

- Products
- Ingredients and processing aids
- Facility set-up
- Product flow
- Waste management
- Equipment and other supplies
- Packaging materials
- Pest management

The certification process (from the time the certifier receives a completed application to the final decision) can take up to three months. Certification fees vary. For more information about organic processing certification, contact an organic certifier accredited by the USDA. You can find a list at www.ams.usda.gov/nop, or contact your state department of agriculture for information about certifiers in your area.

The complete organic standards for producing and processing livestock can be found in the National Organic Program regulations, subpart C, Sections 205.236 – 205.272.

Explore Your Alternatives

Ultimately, your decision about on-farm versus off-farm meat processing will depend primarily on: (1) customer preferences for whole carcasses versus parts; (2) processing volume; (3) proximity to local processors; (4) processing expenses; (5) financing available for equipment purchases; and (6) your desire to perform the work.

If you're still undecided about whether to process on-farm or off-farm, weigh the cost of processing services against the time and expense associated with establishing and operating your facility. See *Growing Your Range Poultry Business: An Entrepreneur's Toolbox* for a mobile processing unit budget and a small processing plant budget. Both budgets include fixed expenses associated with building the facility and variable or on-going operating expenses. You may find that processing on-farm doesn't save a whole lot of money. A survey conducted by the Center for Integrated Agricultural Systems (CIAS), for example, found that the average cost to process a bird off-farm was 20 percent higher than on-farm, and on-farm costs didn't include compensation for farmer labor (CIAS, 2003).

Finally, *don't take our word for it*. Talk with farmers who are already processing on their own, consult other publications, and visit with your local extension or state agriculture department staff to learn more about processing in your area. You may be able to acquire some hands-on experience by helping out at an on-farm processing facility (see ATTRA's *Internships and Apprentices* publication in **Resources** under *Processors*).