

**MOBILE PROCESSING: APPROPRIATE TECHNOLOGY  
FOR PASTURED POULTRY PRODUCERS**

By

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During my visit to Polyface Farm, I asked Salatin where his animals were slaughtered. He does the chickens and rabbits right on the farm, and would do the cattle, pigs and sheep there too if only the U.S.D.A. would let him. Salatin showed me the open-air abattoir he built behind the farmhouse—a sort of outdoor kitchen on a concrete slab, with stainless-steel sinks, scalding tanks, a feather-plucking machine and metal cones to hold the birds upside down while they're being bled. Processing chickens is not a pleasant job, but Salatin insists on doing it himself because he's convinced he can do it more humanely and cleanly than any processing plant. He slaughters every other Saturday through the summer. Anyone's welcome to watch.

Salatin told me the story of a man who showed up at the farm one Saturday morning. When Salatin noticed a PETA bumper sticker on the man's car, he figured he was in for it. But the man had a different agenda. He explained that after 16 years as a vegetarian, he had decided that the only way he could ever eat meat again was if he killed the animal himself. He had come to look.

"Ten minutes later we were in the processing shed with a chicken," Salatin recalled. "He slit the bird's throat and watched it die. He saw that the animal did not look at him accusingly, didn't do a Disney double take. The animal had been treated with respect when it was alive, and he saw that it could also have a respectful death—that it wasn't being treated as a pile of protoplasm."

Salatin's open-air abattoir is a morally powerful idea. Someone slaughtering a chicken in a place where he can be watched is apt to do it scrupulously, with consideration for the animal as well as for the eater. This is going to sound quixotic, but maybe all we need to do to redeem industrial animal agriculture in this country is to pass a law requiring that the steel and concrete walls of the CAFO's and slaughterhouses be replaced with . . . glass. If there's any new "right" we need to establish, maybe it's this one: the right to look.

No doubt the sight of some of these places would turn many people into vegetarians. Many others would look elsewhere for their meat, to farmers like Salatin. There are more of them than I would have imagined. Despite the relentless consolidation of the American meat industry, there has been a revival of small farms where animals still live their "characteristic form of life." I'm thinking of the ranches where cattle still spend their lives on grass, the poultry farms where chickens still go outside and the hog farms where pigs live as they did 50 years ago—in contact with the sun, the earth and the gaze of a farmer.

-Michael Pollan, from "An Animal's Place"  
Originally printed in *The New York Times Magazine*

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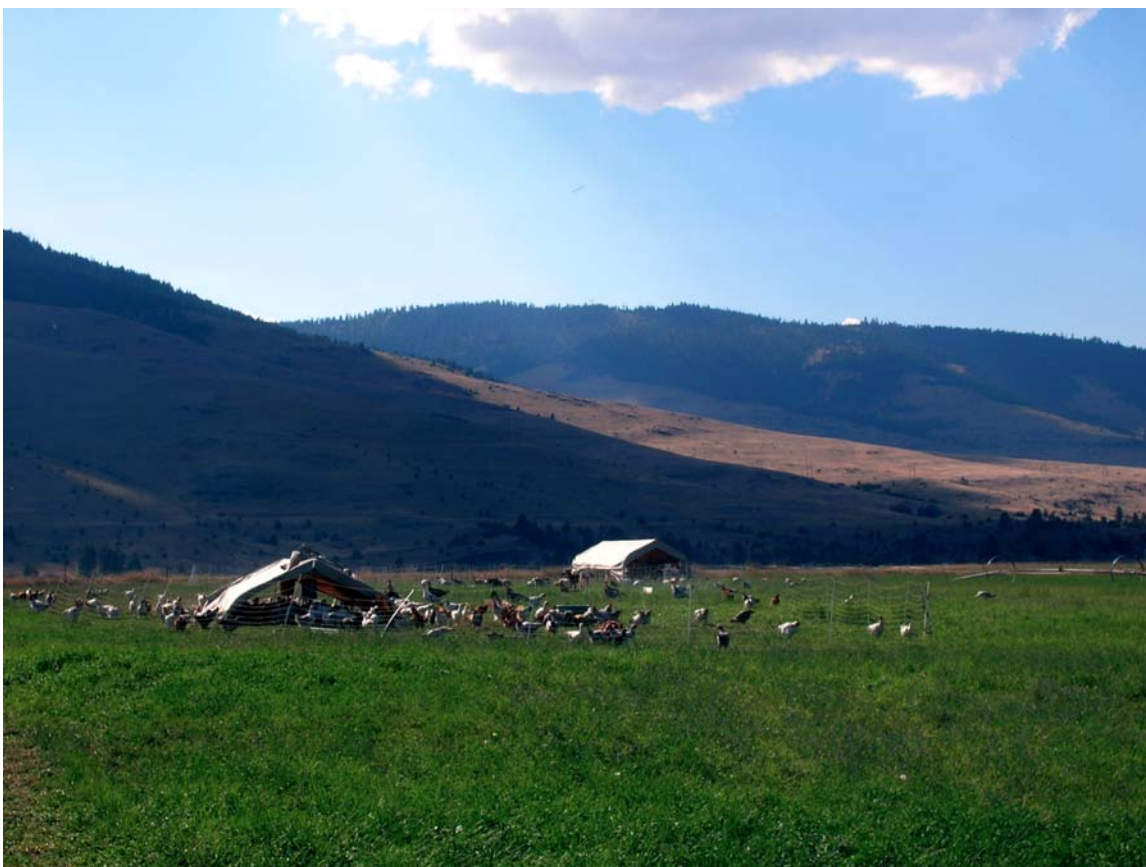
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## 1.0 INTRODUCTION

Find the shortest, simplest way between the earth, the hands, and the mouth.

Lanza del Vasto



Pastured chickens and turkeys in the Moiese Valley, Montana

The thermometer nailed to the cottonwood out the kitchen door reads four degrees, and if the voice on the radio is right, it will drop another ten before the night is over. With the relish of a farmer seeing the other side of those sixteen-hour workdays in July, I sit warm by the crackling woodstove, watching a skiff of snow blow across the hills of the National Bison Range to the east. The four hundred or so pasture-raised chickens and turkeys my partner and I spent the past five months moving, watering, feeding and protecting from an endless onslaught of coyotes are now in the bellies or freezers of our customers, none of whom live more than

seventy miles from the eighty acres of bottom land in the Moiese Valley where we farm in western Montana.

This is my second season pasturing meat birds, watching tiny puffball chicks grow strong and healthy on grass, grain and sunlight, and standing in awe of the synchronous creation of food, fertility and healthy pasture. The turkeys and chickens arrive on the farm one day old—some are from Iowa, and others from as close as Pablo, just a few miles to the north. As soon as they are big enough to live outside—a couple of weeks or so—they spend their days out in the pasture, housed in shelters we move every few days, protected from predators by temporary electric fencing, foraging on grass and clovers, insects, and Montana-grown grain.

We process on the farm using equipment owned cooperatively by a group of Montana poultry producers. Our slow-growing birds take longer to reach market weight; we process our chickens at twelve weeks (most commercial broiler chickens are slaughtered at six weeks) and our heritage turkeys at six months. A few close friends come to help, trading their time for chicken or turkey. Slaughter is physically grueling work, and killing mindfully is not easy. We do it this way though, because we think the death of these birds can happen the most gently, with the most care, if it's done on our farm.

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The pastured poultry movement arose partly out of a rejection of the conventional poultry industry. Though the human, environmental and social abuses of this industry are widely documented, they merit a summary. Almost all U.S. poultry production takes place on industrial scale operations, controlled by a handful of corporations (Ollinger, 2005). The environmental cost of producing so many birds in such little space (think one million birds housed within two square miles) leads to an array of environmental problems, including air, water and soil pollution (Midkiff, 2004). According to the US Geological Survey, nearly one-third of all wells in areas near industrial poultry operations exceed EPA safe drinking water standards for nitrate, a form of nitrogen concentrated in chicken waste that seeps into groundwater (USGS, 2004).

The conventional poultry industry operates under a contract system where growers must follow prescriptive production guidelines set by poultry agribusinesses. The growers themselves make few management decisions, yet assume all the risk of the enterprise. When things go well, the corporation owns the birds; but when things don't go so well—as was the case recently in Seattle where a chicken house burnt to the ground, killing all 17,000 birds inside—producers are left with the burden of covering the loss (Associated Press, 2005). The plant workers who process the almost 3 billion pounds of poultry Americans consume every year don't fare much better. Meat and poultry processing is the most dangerous job in the nation in non-fatal injuries, and according to the U.S. Department of Labor, almost thirty percent of meat processing workers will be injured on the job (1999).

Although many chefs may cringe at the USDA's recommended temperatures for cooked poultry, these high temperatures are likely necessary to protect consumers. The breakneck speed of poultry processing often results in a product contaminated with salmonella and other dangerous bacteria (Consumers Union, 1998; Price et al., 2005). The prophylactic (preventative) use of antibiotics in the broiler industry has made it possible to keep birds alive under appalling living conditions, but it has also led to serious problems with antibiotic resistant microbes.

It has been well documented that factory-farmed poultry endure terrible living conditions, including crowding, debeaking (a procedure where young chicks have their beaks seared off with a hot knife, ostensibly to prevent cannibalism), and rough handling that frequently results in broken bones (Midkiff, 2004) Turkeys and broilers have been bred to grow quickly and develop large breasts, but their internal organs and limbs can not keep up with this growth, resulting in crippling leg diseases and heart problems.

Fortunately, a growing number of farmers, nationally and in Montana, believe it is possible to produce the animals we eat with integrity, humanity, and attention to ecological systems. There are no concrete statistics for the number of pastured-poultry producers nationwide, but researcher Anne Fanatico estimates that with more than 48,000 how-to books on pastured poultry sold, their numbers are significant (2003). The American Pastured Poultry Producers Association (APPPA) has several hundred members nationwide and the Montana Poultry Grower's Cooperative, a group of about ten western Montana poultry producers, has had continuous growth in membership since it formed in 2005.

Pastured poultry is not a new concept—until the 1950's, all poultry was raised outdoors (Sustainable Agriculture Network, 2006). While the renaissance of pastured poultry producers is exciting for farmers, consumers and chickens, it also highlights the lack of suitable processing available to small producers. As with the rest of the industry, poultry processing is highly consolidated (Heffernan and Hendrickson, 2002 and 2005), and the processing infrastructure that does exist is often not available to independent producers. This lack of processing is a real barrier to creating viable alternatives to the dominant system. In Montana, the absence of any inspected processing open to independent producers, in addition to a regulatory structure that is unfavorable to small growers, greatly restricts the ability of pastured poultry producers to sell and market their products.

One innovative solution to this problem already being used in several other states is mobile processing. Essentially small trailers equipped with everything needed to process poultry, mobile processing units travel to the farm for processing, providing crucial infrastructure and more humane processing with less environmental impact. In Montana, interest in building a mobile processing unit (MPU) among pastured poultry producers appears to be growing. A group of pastured poultry producers has already been sharing processing equipment—one component of a possible MPU—for two years, demonstrating that collective ownership of infrastructure will work in this region. This research is supported by Mission Mountain Cooperative Development Center (MMCDC) in Ronan, Montana, whose mission is to provide technical assistance to existing and developing cooperatives in Montana. MMCDC is housed with the Mission Mountain Market Food Enterprise Center, a statewide center for developing value-added food products. The demonstrated interest of MMCDC in developing an MPU for this region means that administrative support and expertise for such a project are already in place.

In this paper, I explore if and how mobile processing could meet the needs of Montana pastured poultry producers and encourage others to incorporate poultry in to their farms. First, I provide the background information necessary to understand the context. Then, I take a closer look at mobile processing units for poultry being used by three other states—New York, Kentucky and Washington. My research also included guided conversations with interested parties in Montana, including producers and retailers, to learn more about their processing needs and perspectives on mobile processing and the pastured poultry industry in Montana.

Finally, using the knowledge I gained from all of these endeavors, I make a series of recommendations that growers, policy makers and consumers can take to start developing adequate processing infrastructure for our pastured poultry producers here in Montana.

## **2.0 BACKGROUND**

### **2.1 Pastured Poultry: Another, Better Option**



Heritage turkeys on pasture in the Moiese Valley, Montana

Chickens and other meat birds raised on pasture get to act like the birds they are: they enjoy sunlight, forage on fresh pasture and insects, and engage in normal social interactions

within the flock. In most pastured poultry operations, day-old chicks arrive on the farm in small batches and are kept inside in a warm place for two to three weeks until they develop enough feathers to head out to the pasture. Once outside, poultry live in floorless pens or houses surrounded by temporary fencing, and are moved frequently to fresh pasture. Poultry raised in this system also have constant access to water and grain. After several weeks on pasture, birds are processed on the farm or in a processing facility before being sold to customers. Producers can now find a variety of useful guides on raising poultry on pasture; therefore, a full description of the process and its benefits are beyond the scope of this paper. See appendix A for a list of resources on pastured poultry.

Like other methods of grass-based livestock production, raising poultry on pasture uses the natural cycle of seasonal grass growth to provide a quality food while improving the health of pastures. Keeping land in pasture reduces erosion, and intensive grazing systems, like those used in pastured poultry, provide fertility while avoiding the excess levels of nutrients that occurs when animals are raised in confinement (Robinson, 2000). Research indicates that pasture-raised poultry is healthier for eaters because it has more favorable ratios of fatty acids than poultry raised indoors, as well as vitamin E and less total fat (Robinson, 2002). Farmers raising pastured poultry report several secondary benefits, like attracting new customers for their other farm enterprises and providing an important source of fertility (Ager and Ager, 2006).

Pastured poultry can be especially valuable as a gateway enterprise for new farmers. An investment of a couple thousand dollars, a few acres of pasture, and a little research are all it takes for a producer to get started in this enterprise. Beginning farmers who have never worked with livestock may feel less intimidated by starting with poultry, and with time and experience, pastures and profit are likely to improve. Many pastured-poultry producers later go on to add other enterprises to their farms, such as beef, sheep, or vegetables.

Beyond their environmental and health benefits, pastured poultry operations are also an important part of the movement to rebuild community-based local food systems. Because pastured poultry is labor and management intensive, it tends to be small scale and owned by independent producers who distribute locally, participating in what Virginia pastured poultry producer Joel Salatin calls “relationship marketing” (Salatin, 1993).

Try as it might, there are some products—sweet corn, an August tomato, farm-raised chicken—that the industrial food system just can't get right. This presents the local food movement with an opportunity to reach out beyond the organic salad mix crowd. Even my grandmother, a devout Wal-Mart shopper, heads out to the nearest farm when the sweet corn comes on. In my own experience raising pastured chickens and turkeys, I can't count the number of times customers said to me, "This is chicken like it used to taste!" and then went on to give an account of the chicken slaughter days they remembered from their youth, or from a time at grandma's farm. Though the people purchasing my chickens certainly included the well-educated and environmentally-minded folk who are the stalwarts of the organic and local food movement, I was often surprised by the diversity of customers looking for farm-raised birds.

## **2.2 Rebuilding Local Processing Infrastructure**

While interest in pastured poultry has been growing throughout the nation, including western Montana, the lack of adequate processing is a key barrier to more widespread production and the viability of pasture-raised poultry. It seems only logical that local agriculture would need local processing, but fifty years of consolidation and centralization in the processing industry has left few options for independent, small-scale agricultural producers. We don't need to look far to find evidence of this: the Missoula Valley, for example, was once home to a plurality of agricultural processors that are no longer open for business, including creameries, a potato chip factory, a flour mill, and a vegetable cannery (Johnson, 2004). The dearth of processing today is especially limiting to livestock producers, as it is much easier to sell an unprocessed carrot than an unprocessed steer or chicken. As the meat processing industry has become increasingly consolidated, there are fewer processing facilities available to growers, and many times the large processing facilities that do exist do not process for independent producers (Paterson, 2004). Additionally, the environmental and moral costs of processing large numbers of livestock in one place at an often breakneck pace poses ethical problems for many small, sustainable producers, further limiting their processing options.

Montana poultry producers face an added legal barrier when it comes to processing. Though many states allow a limited amount of poultry to be sold off the farm without inspection (usually 1000 birds or less), this exemption does not exist in Montana (Hipp, 2001).

Where this exemption exists, small poultry producers have been able to build their businesses without access to inspected processing. While the exemption does not allow for sales to retail outlets or restaurants, it can provide a legal means for producers wishing to sell directly to consumers only. See appendix B for further legal information on selling pastured poultry. For an example of this exemption in practice, see the New York and Washington State examples (starting on page 14.)

As mentioned above, Montana law requires that all poultry be processed in an inspected facility. Yet currently there is no USDA inspected processing facility for poultry here, and none of the state inspected facilities are open to independent producers. The lack of inspected processing facilities leaves Montana producers legally vulnerable when selling poultry directly to consumers or other outlets.

#### **Figure 1: A Primer on Inspection**

**Federal:** Facilities that receive federal inspection have an on-site USDA inspector present every time they process. The inspector monitors the birds as they are processed to ensure the processor adheres to USDA standards. Federally inspected poultry receives a USDA seal of inspection and can be sold to any retailer, restaurant, farmer's market or other type of market. Poultry with USDA approval can be sold across state lines through interstate commerce or the Internet. Facilities processing over 20,000 birds annually are eligible, and required to have USDA inspection.

**State:** Only 27 states still have state inspection. State inspection must be equal to or higher than the federal standards a state inspector is present to monitor birds as they are being processed. State inspected poultry can only be sold in state, even though by definition it meets federal standards, a limitation that many rural advocates are working to overcome.

**Custom exempt:** Custom exempt processors are small-scale facilities that follow sanitary guidelines but instead of having an inspector on site, they receive quarterly inspections. Poultry processed under custom exempt is not eligible to be sold and is stamped with "Not for sale." Some states allow an exception in custom exempt rules for the sale of up to 1,000 birds processed on the farm for direct sale to consumers

(Nelson, 2005)

Despite these challenges, several Montana poultry producers have been working cooperatively to share processing equipment. They formed the Montana Poultry Grower's Cooperative in 2004 to own and manage a plucker and scalding that were provided with funding from the Alternative Energy Resources Organization (AERO) based in Helena, Montana.

Though this equipment is limited in scope and does not provide a pathway for producers to gain inspection, it has been used for two growing seasons. The number of producers using the equipment has increased each season, indicating there is interest from producers in on-farm poultry processing. Preliminary feedback from members of the Montana Poultry Grower's Cooperative indicates that producers would like access to state inspection, as well as facilities that could support a higher volume of processing.

As mentioned earlier, mobile processing is one tangible option that may address some of Montana's processing needs. In recent years rural advocates have become increasingly interested in the idea of taking processing to the farm, rather than the farm to the processor. These mobile processing initiatives seek to provide low cost, scale-efficient and geographically convenient processing to small-scale farmers and ranchers. Such projects have emerged as a way to provide critical infrastructure for producers and maintain the viability of family farms. For example, dairy producers in Maine have created the Maine Micro-dairy Development Cooperative around a mobile milking and processing unit that travels to the farm, providing infrastructure and licensing for small dairy producers (Madore, 2006). Producers in the Midwest are working with a biodiesel firm to design a mobile biodiesel-processing unit that would process oilseeds on the farm to provide farmers with biofuels and oilseed meal for livestock (Meyer, 2006). Researchers in Iowa are exploring the feasibility of developing on farm processing units to flash freeze produce, making local produce available year round (USDA, 2003). Nationwide, numerous states have developed mobile processing units for independent small-scale poultry producers.

Montana is well positioned to take on a mobile processing initiative. In the 2004 Montana state legislature, the coalition Grow Montana passed House Bill 484, giving the Montana Department of Livestock authority to inspect mobile processing units (MPUs) for both livestock and poultry. Grow Montana is a statewide agricultural coalition whose mission is to promote economic policies that encourage the production, processing, marketing and consumption of Montana-grown food. Poultry provides an excellent test case for mobile processing in Montana since poultry processing is relatively simple compared to larger animals and all of processing can take place on the farm. Developing a MPU for poultry could provide valuable practical experience for how mobile processing works in Montana and lay the

groundwork for other mobile processing initiatives, such as a mobile slaughter unit for livestock.

### **2.3 Mobile Processing For Poultry Growers**

As with the other initiatives, MPUs for poultry have been developed in several states to provide processing for independent poultry growers (Fanatico, 2003). Typically these units are comprised of a flatbed or enclosed trailer mounted with all the equipment needed to slaughter and process poultry. A producer picks the MPU up from a central place and brings it to the farm to use for processing, returning it when finished. Generally, a non-profit organization or a group of cooperating farmers owns the MPU and the costs and management duties are shared among several producers. Inspection varies, depending on state requirements and the needs of producers; for example, producers raising broilers only for personal consumption may not need inspection, while those raising broilers for a retail market would.



A Mobile Processing Unit in New York

### **Figure 2: Common Characteristics of MPUs for Poultry**

- Specifically for processing poultry and contains equipment for killing, scalding, plucking, chilling and packaging
- Usually mounted on a flatbed or enclosed trailer
- Two different models: either a unit that travels to each farm, or a unit that is used at a central docking station
- Can process between 200-400 birds per day, depending on the MPU setup and the number of people participating in processing
- Solid waste from processing is composted or buried on the farm; liquid waste is spread on pasture or drained into special septic tank
- Producers operate MPUs, rather than processing plant staff
- Usually owned collectively or by a non-profit organization
- Some MPUs have state inspection, while others operate under special exemptions
- Cost between \$3,000 and \$70,000 to build, with inspected facilities requiring a greater level of financial investment

(Bauer, 1999; Fanatico, 2002; Community Agricultural Center, 2006; Cornerstone Ventures, 2006; Kramer, 1998; Kentucky Department of Agriculture, 2006; Nelson, 2005; Northeast Pastured Poultry Association, 2006)

Mobile processing for poultry can alleviate many of the problems associated with the conventional poultry industry. For example, in big chicken country—mostly the Mid-Atlantic States and the rural south—it is not uncommon to see a semi-trailer crammed with chickens packed in open crates speeding the highway in route to slaughter. This unpleasant experience reveals the obviously poor condition of the birds in transport. Beyond the fear and stress caused to the animals from being transported, birds often freeze to death when transported in cold weather, while in the summer they perish from heat exhaustion. Though small-scale producers may not transport as many poultry at a time as conventional growers, stress and mortality is still a concern. Mobile processing can lead to more humane slaughter for poultry because the birds are not transported, remain on the farm in an environment in which they are comfortable, and are subjected to minimal handling.

Some of the environmental problems associated with conventional poultry slaughter can be mitigated with mobile processing. The volume of processing done in one location at conventional slaughter plants produces hazardous levels of nutrient-rich by-products that pollute waterways and negatively impact the quality of life of those living in proximity to these facilities (Midkiff, 2003). With mobile processing, solid waste from processing is spread out

on each individual farm where, if composted on-site, it can provide an important source of fertility. The Virginia producer Joel Salatin, who is well known for his poultry-raising techniques, successfully composts the by-products of more than ten thousand chickens processed annually on his farm, resulting in valuable fertility for vegetable production (Salatin, 1993).

Recent outbreaks of E. coli contamination in beef as well as fears about avian influenza have led to increasing consumer demand for food traceability. Mobile processing can mitigate the food safety and traceability issues associated with large slaughter facilities. By design, meat processed in MPUs is characterized by small lots of processing and limited geographic distribution, meaning any contamination would be relatively contained and easily traced directly back to the farm. Additionally, many farmers using mobile processing market their products directly to consumers, meaning there is only one change of hands from farm to table.

The democratic space and social relationships created between producers collaborating on mobile processing units for poultry can also be a significant benefit of these units. By allowing producers the final say over when, where, and how their products are processed, mobile processing gives farmers more control. According to Nebraska extension agent Paul Swanson, producer control is a central strength of mobile processing, “The cooperative part of this project is very important. Producers involved are able to master their own destiny, otherwise they’re at the mercy of whomever does their slaughtering (Bauer, 1999.)” The social aspect of mobile processing can go further than simply sharing a processing unit, as Chris Carusi of the Nebraska Sustainable Agricultural Society describes:

Working with a group of growers to get started was a real benefit. Not only did they work together to learn the Salatin system and purchase their portable processing facility, but they also provided each other with social support as they implemented new practices on their farms. It’s easier to try new things as a group than to try them alone (Quoted in Bauer, 1999).

Poultry producers sharing a mobile processing unit can collaborate on labor and materials for processing, as well as share production knowledge and information.

Mobile processing for poultry can provide a solution for the dearth of processing available for independent producers, as well as mitigate humane slaughter and environmental concerns associated with conventional poultry processing. As many

independent poultry producers know, adequate processing can be a major barrier to the success of this enterprise. A state inspected mobile processing unit in western Montana could alleviate both availability and regulatory concerns about processing for independent poultry producers.

### **3.0 MOBILE PROCESSING IN PRACTICE: LESSONS FROM OTHER STATES**

Although there are certainly challenges inherent in developing an MPU for poultry in Montana, we aren't starting from scratch, and we can learn from initiatives in several other states that already have poultry MPUs on the ground. Not all of the initiatives have been successful, but the experiences of those MPUs that are working demonstrate their effectiveness. In order to gain insight into what other groups have done, this section takes a closer look at three mobile processing projects for poultry located in New York, Kentucky and Washington State. These initiatives were selected for further study from among the several MPU projects for poultry already on the ground because they have enjoyed a relative level of success and provide a diversity of design and logistical structure.

The New York and Kentucky MPU sections are drawn from a review of background information about each initiative, as well as telephone conversations with key figures in both projects. For the New York section, I spoke with a producer who also played a major role in the development and coordination of the MPU. In the case of Kentucky, I spoke with Steve Skelton, a staff member at Kentucky State University who coordinates the MPU. The Washington section is based on a review of background information, a site visit to the unit, and in-person conversations with Terry Swaggerty, a WSU extension agent who developed the MPU, and two poultry producers currently using the unit.

#### **3.1 New York State**

One of the first MPU initiatives took place in New York, where a group of poultry producers joined the Hudson Mohawk Resource Conservation and Development Council (RC&D) to build an MPU. Heifer International and the USDA-Natural Resources Conservation Service (NRCS) Graze New York program provided funding for the MPU

(Northeast Pastured Poultry Association (NEPPA), 2006). A high level of producer involvement and cooperation is one of the defining characteristics of this project; to own and manage the MPU, producers formed the Northeast Pasture Poultry Association (NEPPA). NEPPA members rotate coordination responsibilities for the MPU annually. Producers pay fifty cents a bird to process plus a ten-dollar membership fee to join NEPPA. Most producers are located within sixty miles of a central farm that houses the unit (NEPPA, 2006).

The NY MPU is an example of a “bare bones” processing unit, costing only \$10,000, plus labor, to build (Fanatico, 2002). To keep costs down, much of the equipment on the MPU was homemade. The unit consists of an open 25’ flatbed trailer with a ball hitch and hookups for 110-volt electricity and water. All processing components are mounted on the flatbed, including kill cones, a scalding tank, a plucker, a stainless steel table for evisceration and a chill tank (Cramer, 2006). Poultry crates, knives, and scales are also included with the unit, though producers say that these items are hard to keep track of as the unit moves from farm to farm (NEPPA, 2006).

The New York MPU is not inspected. Because an exemption in New York allows for on farm processing, inspection was not a major factor when the unit was initially constructed (NEPPA, 2006). According to one NEPPA member, until recently state regulators interpreted the on-farm poultry exemption as 1000 birds annually for each farmer on a particular farm, so if there were five residents on a farm, that farm could legally sell 5000 birds annually under this exemption. Recently, however, state inspectors began to interpret this rule as only 1000 birds per farm annually, and according to members of NEPPA this will likely have a negative impact on pastured poultry producers in New York, as most producers process their birds on the farm under this exemption. According to one long time poultry producer in New York, “I probably won’t raise birds next year. You just can’t make any money on that kind of volume.”

The New York MPU is not intended for use by the same producers on a long-term basis, but rather to help beginning pastured poultry producers get started. In fact, although initially local producers used the unit extensively, usage has dropped off in the last couple years as producers who have developed their business have begun to purchase their own equipment. Presently, about ten producers use the unit (NEPPA, 2006).



The New York MPU

A second collaborative effort was sparked by the formation of NEPPPA. After developing an MPU, there was still additional money available from the original Heifer grant. When members came together to brainstorm ways to use this extra money, the need for a local hatchery was a prominent theme. New regulations passed after September 11<sup>th</sup>, combined with worries about avian influenza have led airlines to refuse to carry live chicks. As a result, chicks travel via ground mail, a long process that can result in significant mortality. With additional funding from Heifer, NEPPA members constructed a local hatchery; in 2006, the hatchery hatched 12,000 chicks, and paid its operating costs. Though some shipping occurs, local producers purchase most of chicks (NEPPA, 2006).

Although it was initially not a concern, the lack of inspection for the New York MPU may be a key weakness of this project in the future, as regulatory interpretation shifts and limits on-farm processing. One of the biggest strengths of the New York MPU is the strong producer organization that formed out of its development. In addition to managing the MPU

and chick hatchery, NEPPA conducts educational seminars on pastured poultry to encourage new producers and is active in other sustainable agriculture issues. As the pastured poultry industry evolves in this area, it is likely the producers' group will be able to cohesively respond to new needs, such as getting inspection.

### **3.2 Kentucky**

In Kentucky, the development of a MPU was one component of a larger project to promote pastured poultry production in the state. The Small Farms program at Kentucky State University (KSU) in Frankfort spearheads the project, which was developed by a coalition of organizations, including Heifer International, the Kentucky Department of Agriculture and KSU (Kentucky Department of Agriculture (KDA), 2006). The unit is housed at KSU and administered by land grant staff from the University. See appendix C for the KSU MPU brochure.

The Kentucky MPU is housed in a 20' long 8' wide gooseneck cargo trailer with an enclosed aluminum shell; all the equipment needed to kill and process poultry is located in the MPU, though producers provide their own packaging materials (Skelton, 2006). Killing, scalding and plucking are done outside in an adjacent covered area, and then birds are passed inside into a "clean room" for the rest of processing. Also included with the MPU is a set of small bumper trailers, mounted with dual chest freezers powered by a generator. For a nominal fee, producers can use the freezers to transport their processed poultry to markets or storage. All waste from the Kentucky MPU goes into special septic tanks located at the KSU docking station (KDA, 2006). According to KSU staff, this is not a final solution and they are interested in exploring a composting system for waste (Skelton, 2006).

Costing a little more than \$70,000 to build, the Kentucky unit is the "Cadillac" of MPUs and one of the more expensive MPUs developed. Producers must attend an extensive annual, two-day training to use the MPU and the cost to process with the unit is one dollar per bird (Skelton, 2006). Rather than traveling to the farm, the Kentucky MPU must be docked at approved docking stations with a special septic tank to handle wastewater from processing in accordance with state wastewater treatment regulations. Currently, the only docking place is on the demonstration farm at KSU, though efforts are being made to build another docking station elsewhere in Kentucky.

Similarly to Montana, Kentucky has no exemption for on-farm processing; so creating a state inspected unit was essential. Poultry processed in the MPU can be sold directly to consumers, to retailers including restaurants and at farmers markets. A state inspector must be present every time the MPU is used. The MPU is also certified for processing fresh water fish and prawns.



Inside view of the Kentucky MPU

The Kentucky MPU is designed to provide a way for poultry producers to sell their products while they iron out production issues and develop their markets. Currently, the unit is used about three days a week and KSU staff expect use to increase. However, the fixed location of the MPU may limit its accessibility. Currently, only producers who live in close proximity to KSU and are willing to crate and transport their poultry can use the unit. The cost

of developing additional docking stations (\$5,000) is likely prohibitive to individual producers. One of the primary goals of mobile processing is to develop scale-efficient processing for beginning producers, and the Kentucky project may be too big for that first level of infrastructure.

The support and involvement that KSU staff put into the project makes the Kentucky MPU unique. Steve Skelton, a staff member at the KSU demonstration farm is the coordinator for the MPU and is present at every processing day. Skelton's involvement goes beyond simply overseeing processing, "I usually do all the work on the slaughter end of things," he says, "because that is where things get piled up and the producers need the most help."

### **3.3 Washington**

The Washington MPU emerged as part of a four-year research project funded by the USDA Initiative for Future Agriculture and Food Systems to promote and identify barriers to direct marketing in the Northwest. Led by the Small Farms Program at Washington State University (WSU), the Northwest Direct project includes land grant schools, government agencies, non-profits and farmers in Washington, Oregon and Idaho. The project used pastured poultry as a case study for direct marketing barriers and opportunities in the region, leading to an economic analysis of pastured poultry production and a budgeting tool for producers (see resources for a link to this tool), passage of new legislation in Washington allowing on farm processing of poultry, and the development of an MPU for poultry. The project also hosted a series of roundtable discussions with poultry producers and regulatory agents in each of the participating states intended to: "collaboratively identify solutions that meet health and safety standards while allowing small scale producers to direct market their products." (Northwest Direct, 2006)

With support from Northwest Direct, the Community Agricultural Development Center (CADC) in Colville developed the Washington MPU in collaboration with WSU Stevens County Extension (Swaggerty, 2006). With funding from the Washington State Department of Agriculture's (WSDA) Small Farm and Direct Marketing Program, CADC was able to design, build and test an MPU. CADC owns the MPU and leases it to a producer cooperative that takes care of management (Swaggerty, 2006).

Currently, co-op members pay a \$200 year membership fee plus seventy cents a bird to use the unit, which serves a five county area (Lieberman and Dye, 2006). Producers must attend a one-day training, obtain a water sample, a food processing license, and an inspection from WSDA Food Safety Department to use the unit on their farm (CADDC, 2006). Stevens County extension agent Terry Swaggerty, who was the driving force behind the project, worked closely with state regulators in the design of the state inspected MPU. Although the MPU is state inspected, inspectors do not have to be present at processing. Producers adhere to a set of rules developed by state regulators to ensure poultry are processed in a safe and sanitary manner. Any poultry processed in the unit can be sold at restaurants, retail outlets, farmer's markets and directly to consumers. (Swaggerty, 2006)

If the New York MPU is barebones, and the Kentucky unit a Cadillac, the Washington MPU is a good example of middle ground. Costing a little under \$30,000 to build, the MPU is mounted in a 20' enclosed trailer with a ball hitch with hookups for water and electricity. The trailer is divided into two rooms to meet inspection requirements. Killing is done outside the back door of the MPU, and the birds are then passed into the rear to be scalded and plucked in the "dirty room". An on-demand hot water heater provides 145-degree water to the scalding, which has an automatic arm that rotates the birds through the water for a set period of time, though birds must still be lifted out by hand. The drum plucker has a four-bird capacity. From the scalding and plucking area, birds are passed through a small window to the larger "clean room" in the front of the truck where they are eviscerated, chilled, and packaged. A stainless steel table offers four stations for eviscerating. Waste products can be pushed into containers located in the middle of the table. Once eviscerated, poultry is chilled in fifty-gallon drums cooled with ice. After draining on a pair of stainless steel sinks, poultry is vacuum sealed and weighed on a digital scale that prints a label with the weight and the price of the bird. Solid and liquid wastes are composted on-farm. (Swaggerty, 2006) For more details on the Washington MPU design, please see appendix D.

The Washington project, as mentioned earlier, is part of an integrated effort to reduce barriers to direct marketing, and this is one of its main strengths. Rather than simply creating infrastructure, this project also addressed legal barriers to direct marketing by passing legislation to allow on-farm processing of poultry, up to one thousand birds per year. While the Colville MPU serves a limited geographic area, the processing exemption allows producers

anywhere in Washington to begin to develop pastured poultry operations. As these enterprises develop, mobile processing or stationary facilities can be located in areas where there are producers. Please see Appendix E for a copy of the exemption bill.

Currently, only about four producers are using the MPU (see figure 3 for a more detailed description of one of the producers), amounting to approximately 3,000 to 5,000 birds processed in the MPU annually. Though currently this level of usage is sufficient to cover the operating and capital costs (for repairs) of the MPU, sufficient use may be a problem in the future. Most of the MPUs for poultry count on the fees that producers pay to use the unit to cover some administrative costs, as well as the capital costs needed to make repairs. Without an adequate base of producers, MPU initiatives may not generate enough cash flow to maintain the equipment.

### **Figure 3: Paul's Pastured Poultry**

It is blowing wet snow the day I visit Susan Lieberman and Paul Dye on their eighty-acre farm in northeast Washington State. Despite the inclement November weather, the couple was cheerfully using the Community Agricultural Development Center MPU to process the last of their broad-breasted bronze turkeys for Thanksgiving. Self-titled “greenhorns” to farming, Lieberman and Dye left their “city careers” and moved to their Washington farm in 2004. Though the couple had no prior experience in agriculture, they knew they wanted to farm their land in some way. After attending a cooperative extension course on pastured poultry and learning about the MPU available in Colville, just a few miles away, they decided to raise pastured chickens and turkeys the following growing season. In 2005, they raised more than a thousand broilers and a couple of hundred turkeys on their farm under the name “Paul’s Pastured Poultry.” Customers came from as far as British Columbia to purchase chickens off the farm, but according to Lieberman and Dye most of their customers were local. Though they are located in a relatively economically depressed area, Lieberman says that, “We had no trouble selling out of poultry, even though ours is almost three times what it costs in the grocery store.” After a successful season of poultry, the couple is planning on adding grassfed cattle, pork and fruit to their farm enterprises. The development of the mobile processing unit was essential to the success of their farm, says Dye: “We wouldn’t be here doing this without the mobile processing unit.”



Processing Day on Lieberman and Dye's Farm

### **3.4 Lessons from other states**

There were some prominent themes running throughout each of these initiatives, including inspection, management structure and design. Two of the MPU's featured did have state inspection, while the third—New York—operated under a special poultry exemption. Either of these structures seems to work fine, as long as farmers can produce the volume of poultry they need to and access the markets they want. The best situation, however, seems to be in Washington (who has both an inspected MPU and an exemption), where producers who want to access retail and other markets or the MPU infrastructure can, while those wishing to process on farm with their own equipment can also legally sell their birds. The design and scale of these three projects also differed. The best design might be the Washington unit. While this MPU is small enough to travel to the farm for processing, it also has commercial scale

equipment for producers who need faster, more efficient processing. Proximity was also a prominent theme in the snap shots of other MPUs, and 1-2 hours appears to be the outer limit that producers are willing and able to travel in order to use an MPU.

One concern often voiced by small farmers is that federal and state support for producers—such as research and extension—does not typically meet their needs. In all three of the mobile processing initiatives I examined, however, new links were forged between small producers and extension, land grant and regulators. How often have you heard of land grant staff willing to spend long hours pulling the guts out of chickens in order to assist producers?

I thought about this a lot in my trip to visit the Washington MPU. I spent the day with WSU extension agent Terry Swaggerty, who graciously showed me around mobile processing projects happening in eastern Washington. Terry was greeted with a hug or a handshake everywhere we went, and as I witnessed the on-going conversations happening at the farms we visited, it was obvious that he knew the needs and concerns of these producers intimately. Now, part of this has to do with an individual; Terry Swaggerty is a special person, and someone who puts his heart into his work. I also think, however, that the spirit of collaboration among the WSU land grant staff and faculty, extension, regulators and producers in Washington and in the other projects gives Montana a model and a goal to work towards. Perhaps as we develop infrastructure and regulations for small producers here, we can build a similar atmosphere of collective vision and create new links between Montana producers and policy makers.

#### **4.0 MONTANA PERSPECTIVES**

As with any initiative meant to support small producers, a successful MPU depends on a good understanding of the local need and potential for this infrastructure. This section takes a closer look at two important parts of the local climate for pastured poultry that exists now in western Montana. First, I take a closer look at the producers who are currently raising pastured poultry in the region. Then I explore some of the local market potential for this pastured poultry. While it is reasonable to expect that this industry is currently underdeveloped, due to the lack of adequate processing, we can still gain important information about the potential benefits, and limitations, of an MPU by looking at current production and sales of pastured poultry.

#### **4.1 Producer Perspectives on Mobile Processing and Pasture-Raised Poultry**

Despite the lack of processing, there are several small producers already raising chickens, turkeys, and other meat birds in western Montana. While developing adequate processing may encourage new growers to start pastured poultry enterprises, the input of existing producers is crucial to the success of a MPU. To find out what these existing producers think about mobile processing, I identified eleven producers in the western Montana region who raise and sell poultry, and I engaged these producers in a conversation about their perceptions of mobile processing and how a unit might best meet their needs. The results of these conversations are discussed below.

At this time there is no inspected processing available to independent poultry producers in western Montana, meaning that producers are unable to legally market their poultry to individuals, at farmer's markets, restaurants, or retail outlets. This situation most likely discourages pasture-raised poultry production in Montana, and it would be reasonable to expect that more producers would consider raising pastured poultry in the future if there was processing available to them.

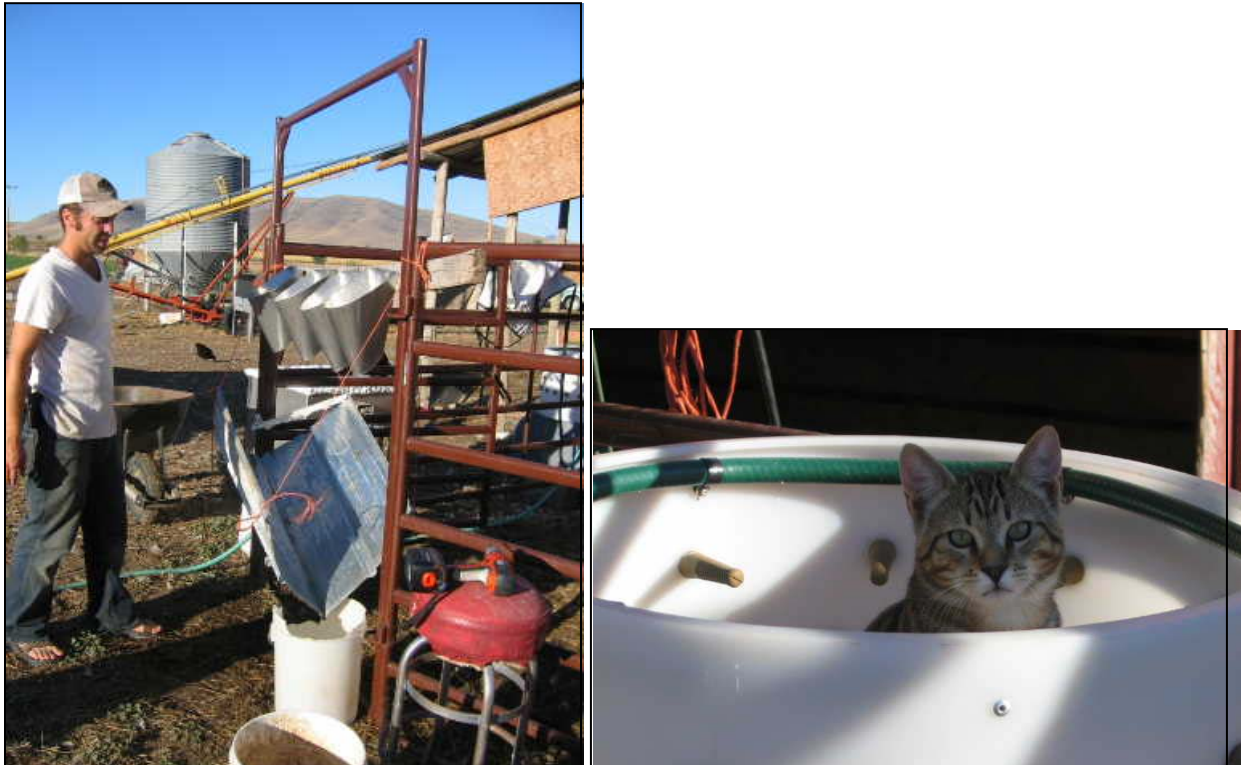
#### **Current Poultry Production and Marketing**

All of the growers identified and surveyed for this research are small-scale pastured poultry producers, raising between 50 and 1000 meat birds annually. All the enterprises are producer-owned, and income from poultry sales is not the primary income for any producers interviewed. About half of the producers surveyed (6/11) are located in the greater Missoula area, while others are located near Bozeman and Helena. Interestingly, nearly all the interviewees are women.

Though all the producers I identified for this research sell at least some poultry, there were clearly two types of producers, each with distinct needs around processing:

- Small-scale commercial producers who would like inspection, and need more efficient and commercial scale processing.
- “Micro” scale producers, raising a few dozen meat birds for themselves, family and friends; these producers would like to have access to processing equipment, but do not need inspection or commercial scale processing.

Most of the producers interviewed (10/11) are currently processing on the farm, and selling poultry directly to consumers. Several use equipment owned by the Montana Poultry Grower's Cooperative and others have their own small plucker and scalder. A variety of arrangements for processing exists. For example, one producer has a local Hmong family that comes up to the farm and processes birds once or twice a year; others use a local custom exempt processor to process birds for their own consumption (see figure 4)



Setting up for on-farm processing, Moiese, Montana

Up to this point, direct marketing has been the main avenue for pastured poultry growers in Montana. In fact, for all of the producers surveyed here (11/11), direct marketing is the only avenue for selling their birds, since they do not have access to the inspected processing that would be required to sell to other markets, like retail outlets. Producers are currently marketing their poultry directly to consumers through a variety of methods. Several producers market mainly through word-of-mouth, while others send out a mailing at the beginning of the season, or put up flyers at local stores. Another producer takes orders at the local farmer's market, then delivers poultry at a later time.

#### Figure 4: LAM Meats

Down a long, rutted dirt road, with the imposing face of the majestic Mission Mountains looming above, sits LAM meats, a custom exempt slaughter and processing facility owned and operated by Leroy and Laura Miller. Like many of Montana's small custom processing facilities, the Millers process game and livestock, but they are unique in that they offer small batch poultry processing as well. During the summer when their facility is set up for poultry processing, the Millers stay busy 1-2 days a week processing meat birds, turkeys and layers for residents of the surrounding community, employing their nieces and other members of their Amish community to work in the facility. The part time processing schedule works well for the Millers, as they are busy with the rest of their farm that includes fruit and vegetable production. The Millers would like to offer poultry processing year round, but since they have to totally rearrange their small facility when they switch from poultry to livestock, they are only set up for poultry in the summer months.

LAM meats processes poultry under custom exempt, meaning it is only for consumption by the producer and cannot be sold. Although Leroy would like to provide state inspection for poultry producers, he thinks it would take a significant financial investment to get his facility up to standard, and he probably would not make his investment back on poultry processing. There is significant interest from producers in the area in having LAM process their poultry, but many need to get state inspection to market their poultry at farmer's markets, restaurants and retail outlets. Leroy thinks a mobile processing unit might be a good option for both area producers and himself; he could park the MPU beside his facility when it isn't being used elsewhere to process for producers who don't want to process on the farm. Experience from other initiatives indicates that sufficient usage is important in the success of an MPU—the fees producers pay to use the unit helps offset administration costs and provides the capital for repairs.

A butcher willing to process poultry is a valuable community resource, as there are not many. One recent study found that out of 84 small processors interviewed, none were interested in processing poultry (Food Processing Center, 2004).

An MPU could provide a business opportunity as well as employment for the Millers and other residents of the surrounding Amish community. As agricultural land in the Mission Valley rapidly fills in with homes and the area faces increasing development pressure, supporting agricultural enterprises and the Amish community here may play a key role in keeping agricultural lands open and in production.

Producers identified several benefits of direct marketing, like being able to keep more of their profits, and having personal contact with their customers. At the same time, some producers said that the time and effort involved in marketing with direct sales is problematic; as one producer said, "You might make three phone calls for a sale where you only make five dollars profit." Other producers indicated that they like direct marketing but want access to other markets to expand their business. Furthermore, several producers indicated they were uncomfortable with the way they must sell their poultry. Since there is no regulatory allowance for on-farm processing now in Montana, producers must sell their poultry as live birds, and include processing as a complimentary service to customers. Though this practice is technically allowed under state regulations, some producers indicated they were uncomfortable with it.

#### **Producer perceived benefits and needs around an MPU.**

All of the producers I talked to (11/11) indicated they would use an MPU. This interest seems to stem in part from the fact that an MPU may help them overcome challenges they face

with the way they process their poultry. Producers were interested in using an MPU from one to four times a season and processing up to 200 birds at a time.

Several producers who currently use the Montana Poultry Grower's Cooperative equipment explained that while they appreciate being able to access the Coop equipment, they would like a faster, more efficient set up that would enable them to process on a larger scale. According to one grower, “My method now works pretty well, but in the past I have looked for a way to be able to sell more commercially at a store or farmer’s market; I would also like to be able to process faster, have a bigger set up so I could involve more people in the process...” Similarly, other producers thought that processing would be easier and faster with a MPU, so they would be able to process a higher volume on the farm and increase their production. One producer said she would consider adding a new enterprise—turkeys for Thanksgiving—to her farm if she could use a MPU for processing them.

Access to new markets was another factor in producers anticipating they would increase their flocks if they could access an inspected MPU. Since lack of processing had limited most producers to direct sales, they felt there would be a significantly bigger market for their birds with a MPU.

The lack of access to an inspected facility was a major concern among some producers. Producers wanted inspection for a number of reasons, including to access new markets like restaurants, for security, and to be able to comply with the law. Here are some of their comments:

**Figure 5: Producers’ Comments on Inspection:**

- “Not having inspection is a huge problem for me...it really limits the markets I can access, and I can’t advertise. Also, I feel vulnerable selling my chickens direct without state inspection.”
- “Processing the way I do now does work, but something else would work better...I would like to get inspection so I can sell to restaurants...”
- “I plan on having a local, custom exempt processor do my processing, but he would need to have inspection so I could sell my birds at the farmer’s market.”
- “I would like inspection, or at least be able to conform to the law.”

Producers felt that an inspected MPU might allow them to still process on the farm and gain inspection. Another grower thought an MPU would have benefits to producers beyond just processing, “It [a MPU] could provide more visibility to Montana Poultry Grower's

Cooperative and pastured producers in this area. Consumers would know more about what is going on with local poultry, right now it's all under the radar.”

The distance they would have to travel to get the unit was a primary concern for producers, particularly those raising only a few birds, as one producer pointed out, “Going to pick the processing equipment up from far away can be hard.... it works when I have larger amounts...” All (11/11) of the producers indicated they could only travel 1-2 hours to pick the unit up. One producer brought up the issues of time and sustainability when I asked her about traveling to pick an MPU up, “It seems like travel is tough, especially with gas prices, being busy in the summer...it can confuse the main goal of sustainability.” Another producer indicated that the low margin<sup>1</sup> of his poultry enterprise limited his ability to travel an extended distance for an MPU, “For my farm, poultry doesn't bring in much money...spending eight hours and 100 bucks on gas to pick up a processing unit just doesn't make sense.”

One producer suggested a way to deal with the proximity issue would be to have several units located throughout Montana, “If you could look at the idea of having more than one unit...how about three—if there was easy access to processing local producers could really ramp up production.

#### **Figure 6: Garden City Harvest**

Garden City Harvest (GCH) is a non-profit organization located in Missoula working to provide high quality, local food for people in need and educate the community about sustainable agriculture. GCH began raising pastured poultry in 2005, when they produced 500 chickens and 200 turkeys for sale to the community as well as for the Missoula Food Bank. Though GCH has since scaled down their production, poultry remains an important part of their operation. This year, they raised pastured chickens at two community farms, the PEAS farm and the River Road Community Garden. The manure from the poultry provides fertility source for the farm and GCH showcased some of their pastured chickens at a special dinner fundraiser this past summer. Pastured poultry also provides an educational component for the PEAS farm for both school kids and university students. The university student that managed the chickens in summer 2006 is planning on starting her own pastured poultry business this next growing season.

Initially, Garden City Harvest processed their poultry on the farm, with equipment owned by the Montana Poultry Grower's Cooperative. According to GCH staff, this method of processing worked, but they ran into regulatory trouble after the Missoulian published an article about their poultry project in July 2005. Officials from the Montana Department of Livestock saw the article and contacted GCH to notify them that it was illegal to sell farm processed poultry, and that they risked having their operation shut down by state inspectors. Prior to the contact with the Department of Livestock, GCH staff had understood that on-farm processing was permissible, and had even received funding from the Montana Department of Agriculture to provide a model of on-farm processing for Montana poultry producers. In 2006, GCH had their chickens processed by the local custom exempt processor, LAM Meats, and did not sell any poultry off the farm.

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<sup>1</sup> Most sources say that producers can expect to net \$1.00- \$5.00 per bird, depending on expenses. (Fanatico, 2002)

## 4.2 Market Perspectives

Pasture raised chicken tastes so good it's hard to believe you're not eating some special game bird. The dark meat is much darker, because the birds have actually exercised; all of the meat has sinew and taste. The fat is a deep gold rather than an anemic yellow. Real chicken could practically be called 'the other red meat.'

- Corby Kummer, senior editor of the Atlantic Monthly (Kummer, 2006)

Americans eat a lot of poultry—more than ninety pounds a person annually, according to the USDA (USDA, 2002)—and though the vast majority of poultry consumption nationally and in Montana is from factory farms, there is real market need for local, sustainably produced poultry, and consumer interest in this product is steadily increasing. One study estimates that at least 2.5 million households in four Midwest states are interested in buying pastured poultry if it were available (Food Processing Center, 2002). My own experience tells me there is consumer interest for this product in this region also. A recent e-mail from one of my turkey customers says this best: “The 14-pounder we purchased is by far the best turkey we have ever experienced. We hope you will keep going with this project, and that you will keep us on the notification list in future years. Thanks so much.”

Consumers favor pasture-raised poultry for perceived health benefits, because they prefer to avoid factory-farmed meats, and for its superior flavor. From my experience, another, less tangible, reason that consumers want to support pastured-poultry producers is that they perceive a common vision and set of values with these producers. Often the interactions I have with customers go beyond a simple exchange of money.

### Retail market for pasture raised poultry in Montana

Many producers I spoke with indicated they would like to access retail markets. To find out a little more about the retail market for pasture-raised poultry in western Montana, I spoke with meat purchasers at three large, regional health food grocers that specialize in

#### Figure 7: Volume

One of the retailers surveyed sells approximately 400 pounds of poultry weekly, while the two others sell closer to 1000 pounds weekly. Poultry prices at these establishments range from \$1.79 to \$3.79 per pound.

Retail 1: sells 400 lbs poultry a week  
60% fresh, 40% frozen

Retail 2: sells 700-1000 lbs poultry a week  
25% fresh 75% frozen

Retail 3: sells over 1000 lb a week  
50% fresh 50% frozen

or carry healthy or locally produced foods.

In terms of poultry products, the retail outlets feature hormone and antibiotic free poultry and also carry organic and free-range types. These retailers are already carrying a significant amount of Montana-raised poultry, including chickens, turkeys, ducks and geese. The Montana grown poultry is primarily from two sources: 1) antibiotic and hormone free, free-range poultry from Hutterite colonies in central and eastern Montana, and the 2) organic free-range poultry from E.T. Poultry raised near Great Falls. None of the retailers currently carry pasture-raised poultry, though one retailer said they had worked with a local pastured poultry producer in the past.

Montana-raised poultry accounted for an estimated 40-65 percent of the total poultry sold in these three markets. Most of the out-of-state poultry sold is fresh, never frozen poultry produced by Draper Valley Farms located in Washington State (see figure 7.) Grocers indicated that obtaining fresh, never frozen poultry from Montana sources is difficult, largely because Montana producers do not have the infrastructure and distribution needed for fresh poultry.

### **Figure 8: Draper Valley Farms**

Most of the fresh, cut up poultry sold by the retailers surveyed here is from Seattle-based Draper Valley Farms. Draper Valley is a family-owned business employing almost 600 people and grossing 80 million in annual sales. They are smaller than most other conventional poultry producers.

Conventionally raised poultry is Draper's main product; their birds are raised in conventional style chicken houses filled with 15 –17,000 birds at a time.

According to CEO Andy Koplowitz, free-range, antibiotic-free chicken is a niche market that goes up and down with the economy, and Draper Valley Farms got into it because "stores were asking for it." The free-range birds live in the same style of housing as the conventional, but stocking densities are lower to control disease.

All of the retailers I spoke with had a general idea of what pastured raised poultry is, although in some cases retailers did not make a clear distinction between free-range and pastured poultry. All the retailers were enthusiastic about working with local pastured poultry producers "As long as it meets our other requirements [hormone and antibiotic free]."

Currently, retailers purchase poultry both through a distributor and direct from producers, and would be interested in working with individual producers to purchase pasture-raised poultry. As one producer put it: "I would love to sell pasture-raised poultry, all a

producer would have to do is come to me and say they have pastured poultry they want to sell here.”

One retailer had previous experience selling locally produced, pastured poultry but indicated price was a factor in sales, “We used to sell grassfed, pastured poultry but it was too expensive. The final dollar amount is very important.” This retailer went on to say that he thought one of the reasons the pastured poultry didn’t sell well was that consumers did not understand the difference between the higher-priced pastured poultry and free range poultry, so were unwilling to pay a premium for the pasture-raised.

Retailers indicated that educating the consumer about pasture-raised poultry is important in creating demand for this product, “It would be beneficial if the farmer came in and people got to meet the farmers and explain what they do exactly; education about what pastured poultry is, pamphlets, handouts, those kinds of things.... Honestly, whatever seems to work well as long as you educate the consumer...”

Realizing the importance of education, all retailers indicated they would be willing to work with producers on education and promotion about pastured poultry in their stores. As one retailer said, “We generate our own demand, for example, we were the first store in the state to have ‘fresh, never frozen poultry,’ and we educated the consumer about what that meant. If we had pasture raised poultry we would educate the consumer on what that meant.”

All the retailers felt there would be a market for pasture-raised poultry.

“Fresh, never frozen” poultry is another niche that local producers may be able to fill. According to one retailer, “We can only get fresh chicken [from a Montana source] once or twice a year...I get people who give me their number and say ‘please, call me if you get fresh poultry—I’ll buy fifty pounds of it’...” Interestingly, a lack of adequate processing has kept one producer, E.T. Poultry, from providing fresh poultry to these retailers (Tipiani, 2005)

#### **Figure 9: A note on labeling**

**Free-range-** USDA standards require that free-range poultry be allowed access to the outdoors for “an undetermined period each day”, and USDA considers five minutes of outdoor access per day—regardless of whether or not poultry venture outdoors during this period—adequate to label a product “free range” (Consumer’s Union, 2002).

**Certified Organic-**According to the National Organic Program (NOP) certified organic poultry must be given living conditions that allow for the “health and natural behavior of animals” and be allowed access to the outdoors, though there are no specific rules for how producers fulfill these requirements (NOP, 2001).

**Pasture-raised-** There is no official definition for pasture-raised poultry. Usually birds raised in this manner are kept outside on pasture for most of their lives, and moved to fresh pasture on a regular basis. According to the American Pastured Poultry Producers Association (APPPA) mission statement, the pastured poultry model also encompasses, “decentralized food systems, farmstead-sized processing, and as much interaction as possible between producer and consumer” (APPPA, 1997)

## Other potential markets

Farmer's markets are a direct market that Montana pastured poultry producers have not been able to access fully, due to the lack of inspected processing. In Montana, we've seen the number of farmer's markets grow from 5 in 1990 to over 30 today (Matheson, 2001). A new farmer's market in Missoula highlighting locally produced meats, and other similar markets throughout Montana show excellent potential for pastured poultry producers if they can access suitable processing.

"I think restaurants are okay with paying more for local products; we know and the customers know it's higher quality...it's the processing that gets in the way of me purchasing more local poultry."

—Missoula restaurant owner

Initial conversations with restaurateurs in western Montana indicate that there is interest in pastured poultry. A recent meeting in Missoula of restaurant owners and chefs interested in purchasing locally produced food brought more than a dozen restaurateurs together with producers. However, the

need for additional processing (i.e. cut up or boneless, skinless breasts) may be a barrier.

Pastured poultry producers in other areas have found restaurants to be an excellent market; restaurants account for almost 30 percent of sales for the Oregon based pastured poultry cooperative, Greener Pastures Poultry (WDA, 2004). One Bitterroot pastured poultry producer who already has restaurant accounts for other farm products says these customers have also requested her poultry.

## 5.0 CONCLUSION AND RECOMENDATIONS

We have given up to the agribusiness corporations a crucial part of our responsibility as human beings, and we now must think of ways to take it back.

Wendell Berry

The case of creating the space for Montana's pastured poultry producers to succeed is one of those rare situations when a clear need—pastured poultry producers currently have no

avenue to legally sell their products—can be addressed with a set of practical, tangible solutions already in hand. The solutions, of course, are nuanced, and it will take further investigation to discover the particular sequence of steps needed, but we have the big answers, and the time to begin work is now.

The question of whether or not we should proceed with a mobile processing initiative for poultry here begs the answer to some central questions. First, is this the right solution for Montana? Secondly is there sufficient need for this initiative? And finally, are the benefits of this project worth the money and time it will take to make it happen?

By flattening out the dominant paradigm of oversized and consolidated processing, mobile processing can provide producer-friendly processing, as made plain in this study. Pastured poultry producers in Washington, New York and Kentucky, in addition to several other states, are all using MPUs to successfully get their products to market. Growing use of the MPUs by producers in Washington and Kentucky indicates that these projects are also encouraging new producers to begin raising pastured poultry, while in New York, the MPU has enabled producers to grow to the point of no longer needing the unit.

The need for a mobile processing initiative is also evident throughout this paper. We know that currently, there is no suitable processing available to independent and pastured poultry producers in Montana. Producers surveyed for this research indicated loud and clear that they are interested in using an MPU. According to producers, this infrastructure could help them build their business and access new markets. Initial conversations with retailers and other experience shows that there is a market for pastured poultry, and with consumer education this market will likely increase. Since the amount of production in the region is still relatively low, an MPU is a low cost way to meet processing needs without over-investing in infrastructure that may not be needed.

Going strictly by the numbers, it is probably fair to say that pastured poultry production in western Montana at this time does not amount to much. Right now, we have a handful of farmers producing at most a few thousand chickens and turkeys yearly for market, while more farmers produce a few dozen poultry each year for their own consumption and for family and friends. So, is it worth investing the time and money into building infrastructure for these producers who by the standards of industrial agriculture are marginal at best? I think so.

The question of whether mobile processing is worthwhile financially is the easiest to answer. First of all, in a climate of \$100,000 tractors and multi-million dollar subsidies, these initiatives are not expensive. The Washington project cost less than \$30,000 to create and provides producers with efficient and sanitary processing. Furthermore, as any farmer knows, the best way to learn is by doing. Developing an MPU for poultry in western Montana will lay the groundwork for other mobile processing projects—for poultry, livestock slaughter or other enterprises—elsewhere in Montana. In this way, a mobile processing initiative will have an added benefit of being an inexpensive feasibility study for mobile processing throughout Montana.

Developing an MPU here will take the valuable time of rural advocates, a group that is few and short of time to begin with, yet I think this is a project worth our time. In the course of this research, I have become convinced that mobile processing initiatives have benefits beyond simply creating infrastructure. As evidenced in the examples from other states, a mobile processing initiative can help form new links between rural advocates, policy makers and producers throughout Montana. At a recent conference in Missoula, I sat on a panel focused on mobile processing, both for poultry and livestock. The room was filled with a diversity of producers, from ranchers in cowboy hats to young farmers just starting organic market gardens and spanning the divide between western and eastern, urban and rural. Though many of these producers might not ordinarily cross paths, our conversations, business card exchanges and shared laughter went on for so long we were asked to leave the meeting space to make room for the next group. Mobile processing is an issue that can bring members of the agricultural community together for a common cause, and as shown in the New York example, these connections can lead to other projects.

Every pastured poultry operation I could find is producer owned, family run and rooted in its local community. The same producers who are raising pastured poultry are also producing other grassfed livestock, eggs, hay and organic produce. These growers are closely involved with creating viable local agriculture in their communities, doing everything from building a community farm stand, to teaching classes on becoming food self-sufficient, to helping start a local food co-op, to working on agricultural policy at the local and national level. They send their kids to local schools, get involved in local issues, and care about

educating the community about what they do. Clearly, keeping agricultural communities viable is about a lot more than production output.

Unless we do something to change the regulatory interpretation regarding inspection in Montana and build suitable infrastructure, these producers are not in a viable business. Every producer selling pastured poultry in Montana now is operating in regulatory limbo, selling their poultry under the radar of the Montana Department of Livestock. In the sustainable agriculture world, the lack of adequate processing is often cited as a major barrier to the success of small farms, and nowhere is this illustrated better than in the case of Montana pastured poultry producers.

Fortunately, while the need for processing is strong, good and practical solutions are in hand with mobile processing initiatives. The information provided in this paper shows that mobile processing is a suitable next step in Montana. When it comes to creating the infrastructure critical to keeping small farmers in business, we simply have to start getting projects on the ground.

### **Recommendations on Mobile Processing for Poultry in Western Montana**

- 1. Amend Montana rules or pass new legislation to allow a 1000-bird exemption for poultry slaughter on the farm and sold directly to customers.** Many other states allow on-farm poultry processing for direct sales off the farm. We need to change either the interpretation or language of Montana rules on poultry processing to allow on-farm processing up to 1000 birds annually. While any MPU initiative developed will serve a limited geographic area, an exemption will allow producers anywhere in Montana to begin pastured-poultry enterprise, and as production in a region builds, processing can be developing. An on farm exemption is particularly important for small producers who only wish to sell their poultry directly.

If new legislation is needed to allow on-farm processing in Montana, I recommend that Grow Montana sponsor such a bill in the 2007 Montana legislative session. A copy of a similar bill recently passed in Washington States (ESHB 1754) can be found in Appendix E.

**2. In addition to a state inspection mobile processing unit, funding should be obtained for two additional sets of processing equipment.** There appears to be growing interest in micro-scale poultry production, where producers raise poultry for themselves and family and friends only. On this scale, producers do not need a mobile processing unit, but access to equipment such as a plucker and scalding tank would provide the processing they need to keep going in their enterprise. Purchasing such equipment would not take much capital, and it would provide an opportunity for a growing number of people to participate in raising their own food. This equipment could also be available for small-scale commercial growers processing on the farm under the proposed exemption described in recommendation 1. A local subset of the Montana Poultry Grower's Cooperative should manage the equipment in each community, with one local representative taking on primary responsibility for the coordination duties.

**3. The Mission Mountain Cooperative Development Center, in partnership with the Montana Department of Agriculture and the Montana Poultry Grower's Cooperative, should take the initiative to develop a state-inspected mobile processing unit for poultry.** Adequate infrastructure is essential in order to support a viable pastured poultry industry in western Montana and mobile processing is a relatively inexpensive way to provide this infrastructure. Other states have shown that mobile processing can be a valuable tool in creating profitable pastured poultry enterprises and as consumer awareness of pasture-raised poultry grows, demand for this product should continue to increase. Commercial-scale producers have indicated that they need access to more efficient and faster processing equipment that could be provided by an MPU in order to maintain and grow their businesses.

Furthermore, there is a crucial need for an inspected processing facility for independent poultry producers so they can access other markets and conform to the law. Though an exemption, as described in recommendation 1, would enable producers to sell directly, an inspected unit is still needed to that producers that want to can access farmer's markets, retailers, restaurants and other markets. An inspected MPU would address this need.

I recommend the first MPU be based at Mission Mountain Market Food Enterprise Center in Ronan. Experience in other states shows that administrative support is vital to MPU success, and this could be provided by staff at MMMFEC. Most of the current producers are located in relative proximity to MMMFEC, and close proximity was a major deciding factor by producers in whether or not they would use a unit. Finally, the presence of an existing poultry processor interested in using the MPU is St. Ignatius is another major benefit of locating the first MPU in this region (see LAM Meats, page 25.). With advance planning, the MPU could be used in other regions (i.e.- All the producers in the Bozeman region, for example, plan to use the MPU the first week in August.)

Though, at least initially, MMCDC staff should provide administrative duties and coordination, the MPU should be leased to or purchased by the Montana Poultry Grower's Cooperative (“the Coop”). All users of the MPU should be members of “the Coop,” and this group, with guidance from MMCDC staff, should make membership and management decisions for the MPU.

In moving this project forward, every effort should be made to bring state extension staff, appropriate faculty and students from MSU and UM, state regulators and producers together in a collaborative planning and design effort. The benefits of this are two-fold: by using a collaborative design process, the best MPU can be developed, and involving more parties in the process will result in higher awareness of the processing needs of small producers and of mobile processing.

**4. The MPU design should be affordable, and compact enough to easily transport to the farm, but fully equipped.** While it makes sense to develop a complete, well-equipped MPU, it is important not to lose sight of the goal of getting affordable and accessible processing to the farm. Furthermore, since both the MPU snapshots and producer surveys indicate that these units work best when they cover a small region, it makes sense to have more units that are less expensive.

When considering the needs of Montana producers, the Washington model seems most suitable for this region. The size of the WA unit is easily pulled to the farm by a half-ton pickup. The equipment on the WA unit is commercial scale, allowing fast and

efficient processing, yet still affordable. The inclusion of hand tools, a digital scale, and vacuum sealer in this unit make it fully equipped so that producers would not have to invest much in their own equipment. Detailed plans of the Washington MPU are included in this document in Appendix D.

I also recommend that construction and planning of an MPU be done in consultation with Leroy Miller, a custom exempt butcher in St. Ignatius, Montana who has extensive experience in poultry processing on a commercial scale (see LAM Meats, page 25.)

**5. Development of a mobile processing unit should include an informational guide for producers on the exact steps and regulations for selling their poultry direct, at farmer's markets and at retail outlets and restaurants.**

A significant amount of confusion exists among producers as to the exact rules and steps they need to follow in selling their poultry. We need a clear, comprehensive handbook to guide producers in the sale of pasture-raised poultry. The Washington State Department of Agriculture Direct Marketing and Small Farms program put out an excellent guide, called the “Greenbook for Direct Marketing” that may provide a good template for a similar publication in Montana. A link to this document is in the references. I recommend that the Alternative Energy Resources Organization (AERO) work with the Montana Department of Agriculture on developing the guide.

**6. Any project developing an MPU should include an educational and marketing campaign about pastured poultry.**

Feedback from retailers indicates that there is confusion among consumers as to what pastured poultry means. Many consumers do not understand the added advantages of pasture-raised poultry, and because of this are unwilling to pay a premium for this product. However, retailers said they believe that with consumer education, the market for pastured poultry would increase. As an MPU is developed, there should be a corollary educational campaign to educate retailers, restaurants, and consumers about pastured poultry. Though it is beyond the scope of

this research, I believe that an educational campaign about pastured poultry would also benefit the sales of other grass-based meats, such as beef and lamb.

AERO be a good fit to oversee this project, and such a campaign could be an excellent summer internship opportunity for a marketing student who is also interested in local food systems. Such a campaign could involve displays at groceries and farmer's markets, developing a brochure about pastured poultry for distribution to retailers, bringing pastured poultry producers to stores and markets to display pictures of their farms, and a tasteful effort to distinguish pastured-poultry products from free-range, among consumers, retailers and restaurateurs.

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## Appendix A: Resources on Pastured Poultry

1. The Alternative Transfer and Technology to Rural Areas (ATTRA) has several good publications on pastured poultry, accessible from the NCAT website: <http://www.sustainablepoultry.ncat.org>
2. The American Pastured Poultry Producers Association is a nationwide group of poultry producers. Their website is at [www.apppa.org](http://www.apppa.org) and contains a link to a legal guide for pasture poultry producers.
3. *Poultry Your Way—A Guide to Management Alternatives in the Upper Midwest*, available online at: [www.cias.wisc.edu/pdf/poultryway.pdf](http://www.cias.wisc.edu/pdf/poultryway.pdf), is a comprehensive planning guide for farmers considering getting into pastured poultry.
4. Many pastured poultry producers find Joel Salatin's book, *Pastured Poultry Profits*, useful. Available at some book stores, and at [www.acreusa.com](http://www.acreusa.com)
5. *Profitable Poultry: Raising Birds on Pasture*, published by the Sustainable Agriculture Network and available from [www.sare.org/publications/poultry.htm](http://www.sare.org/publications/poultry.htm), provides an excellent overview on pastured poultry production.
6. Washington State University has an excellent website geared to small-scale poultry producers, including a useful budgeting tool, available online from: <http://nwdirect.wsu.edu/barriers/poultrygrowers.htm>

## LEGAL ISSUES FOR SMALL-SCALE POULTRY PROCESSORS

### Federal and State Inspection Requirements For On-Farm Poultry Production and Processing

Compiled by Janie Hipp, J.D., LL.M.  
Edited by Skip Polson  
December 2001

#### BACKGROUND AND INTRODUCTION

Congress and the various state legislatures have adopted laws and regulations regarding the **licensing of facilities** where poultry are slaughtered or processed into products for human consumption, and the **inspection of the birds themselves** as they are processed. Congress and some state legislatures have also provided exemptions from these licensing and inspection requirements for small-scale processors. These exemptions have been made for two primary reasons. First, providing inspection officials at all places where poultry are slaughtered or processed would be very expensive and impractical. Second, subjecting small-scale processors to the requirements designed for large-scale facilities would also be inappropriate and burdensome for the producer.

This document will summarize the licensing and poultry processing inspection requirements for small-scale processors. Both federal and state requirements will be examined. This information can help small-scale processors comply with federal and state laws and regulations. **Throughout this document, “federal inspection” usually refers to examination of the birds themselves while they are being processed, and “state licensing” usually refers to the physical design and equipment requirements for poultry processing facilities.**

The laws and regulations discussed in this document may change over time. Therefore, those interested in this subject should be vigilant in pursuing any changes which may have occurred in either the federal or state laws and regulations.

It is also important to acknowledge that these regulations are often confusing, hard to understand, apparently overlapping, and open to subjective interpretation by the regulators themselves. Differences of opinion about the meaning of these regulations is common, and individual regulators do not always know how the regulations apply to small-scale processors in their geographic jurisdiction. In general, they are much more familiar with how the regulations apply to conventional, large-scale industrial processors; and often they are not aware of the exemptions for small-scale processors. Therefore, experienced processors strongly recommend that small-scale producers and processors ask to see the specific regulations in writing if they are challenged by regulators who say what the processors are doing is illegal.

Those wishing to market pastured and on-farm processed poultry should also consult a local attorney and their state department of health when setting up their business. This document is not intended to provide individual legal advice to every small-scale poultry processor. This document is offered only as an introductory discussion of the regulatory requirements facing small-scale processors.

This introduction is followed by a brief description of the federal requirements. Then the requirements of each state are given individually in alphabetical order. The requirements for Puerto Rico and the Virgin Islands are described in the last section.

This document was prepared through an agreement between the Kerr Center for Sustainable Agriculture (KCSA) and Heifer Project International (HPI). It was compiled with the financial assistance of a grant (LS 99-105) from the USDA's Southern Region Sustainable Agriculture, Research and Education (SARE) program.

Some of the state sections include comments from poultry producers and processors about how the processing regulations have been implemented in their state. These comments are clearly marked as **EDITOR'S NOTES** to distinguish them from our efforts to objectively describe the regulations in each state. Additional comments are welcomed, and these may be sent by either hard copy or email to:

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\* \* \* \* \*

**Other useful references:**

The Legal Guide for Direct Farm Marketing by Neil D. Hamilton answers common questions about laws on marketing agricultural products directly to consumers and to retail and wholesale buyers. Hamilton wrote this book for farmers involved in direct marketing produce, livestock and other food products, and for farm advisers, such as extension educators and attorneys working with farm marketers.

Twelve chapters cover legal issues on a variety of topics, such as farmers markets; on-farm businesses; contracts, food stamps and getting paid; advertising, organic certification and eco-labels; land use and property law; labor and employment; insurance and liability; and inspection, processing and food safety. Chapter 12 is particularly relevant to producers who want to market meat, poultry, eggs and dairy products.

Visit <http://www.sare.org/htdocs/dev/legal.htm> for more information about this book. It may also be ordered from the Drake University Agricultural Law Center, Des Moines, IA 50311; (515) 271-2947.

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Small-scale poultry producers and processors may also wish to familiarize themselves with state and federal standards and regulations related to food safety. This information can be found at the web site for the National Association of State Departments of Agriculture ([www.nasda-hq.org](http://www.nasda-hq.org)). At the home page, open the pull-down menu and click on "Food Safety—State and Federal Standards and Regulations."

## THE FEDERAL POULTRY PRODUCTS INSPECTION ACT

### A. Requirements for Federal Inspection

Under the federal Poultry Products Inspection Act and the regulations implementing the Act,<sup>1</sup> the Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture (USDA) is responsible for ensuring that poultry products distributed in United States commerce are safe, wholesome, not adulterated, and are properly marked, labeled and packaged.

In most states, federal FSIS inspectors oversee the facilities which slaughter and process poultry. Some states participate in the Federal State Cooperative Inspection Program (formerly known as the Talmadge-Aiken program). This program allows state-employed inspectors to provide federal inspection services in poultry plants that sell products in interstate commerce.

As of April 2001, twenty-six states provide state inspection programs for meat and poultry. These states are Alabama, Alaska, Arizona, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Mississippi, Montana, New Mexico, North Carolina, Ohio, Oklahoma, South Carolina, South Dakota, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming. In California, Colorado, Minnesota, and New York custom exempt facilities are reviewed under contract with the state. The remaining states rely on federal inspectors. States must maintain inspection requirements at least equal to those of the federal program in order to continue operating intrastate inspection programs and to continue to receive federal funding assistance.

### B. Exemptions from Federal Requirements for Small-Scale Poultry Processors

The federal Poultry Products Inspection Act and its regulations provide exemptions for small-scale poultry processors. These “exemptions from inspection” mean that a federal inspector does not need to be present to examine the birds as they are being slaughtered and processed. Small-scale (or low-volume) processors qualify for these exemptions simply by meeting the requirements which are described below. There is no process for applying to the USDA or FSIS for these exemptions.

The smallest-scale processors are exempt from the federal inspection requirements if the following conditions are met:

1. The producer slaughters no more than 1,000 poultry during the calendar year for which the exemption is claimed.
2. All of the poultry were raised on the producer’s own farm.
3. The poultry producer is not in the business of buying or selling poultry products other than those produced from poultry raised on his or her farm.
4. None of the poultry is distributed outside of the state where the poultry is raised.

The federal inspection requirements also do not apply to poultry producers or other persons who raise and slaughter or process 20,000 or fewer poultry in each calendar year as long as all of the following conditions are met:

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<sup>1</sup> The federal Poultry Products Inspection Act can be found in the United States Code, Title 21, Sections 451-470. The Poultry Products Inspection regulations implementing the Act are found in the Code of Federal Regulations, Title 9, part 381 ([http://www.access.gpo.gov/nara/cfr/waisidx\\_00/9cfr381\\_00.html](http://www.access.gpo.gov/nara/cfr/waisidx_00/9cfr381_00.html)).

1. They do not slaughter or process poultry products at a facility used for slaughtering or processing poultry by any other person.
2. The poultry are sound and healthy before slaughtering.
3. The poultry are slaughtered, handled, and otherwise processed under sanitary conditions, practices and procedures. The resulting poultry products must be sound, clean, and fit for human food when distributed.
4. The poultry products are distributed with a label that includes the producer's name, the producer's address, and the statement "Exempted-P.L. 90-492." The poultry products must not be misbranded in any way.
5. The poultry products may be distributed only in the state in which the poultry are raised and processed.
6. In the current calendar year the poultry producer or distributor may not engage in the business of buying or selling any poultry products other than those described in this exemption.

The poultry products produced under these exemptions may be distributed by the poultry producer or other person directly to household consumers, restaurants, hotels, and boardinghouses for use in their own dining rooms, or in the preparation of meals for sale to direct consumers.

Despite these exemptions from inspection of the birds themselves as they are being processed, the federal FSIS as well as state regulatory agencies may choose to examine processing facilities of any size to be sure that they are in compliance with the laws, including the requirement that poultry and poultry products are processed under clean and sanitary conditions. If the facility is not in compliance with the law, the FSIS or the state may suspend or terminate the facility's exemption from the law and impose penalties provided under federal or state law.

Finally, in recent years, the FSIS established the Hazard Analysis and Critical Control Point (HACCP) system as an effort to reduce pathogens in the food supply. This system established new requirements for meat and poultry processing plants. The new inspection requirements were designed to reduce food borne illnesses, and they were phased-in over several years.

"Small" plants (which employ at least 10 but fewer than 500 employees) were required to implement HACCP by January 25, 1999. According to FSIS, there are approximately 3,500 small meat and poultry processing plants nationwide.

"Very small" plants (those with fewer than 10 employees and less than \$2.5 million in annual sales) were required to implement HACCP by January 25, 2000.

HACCP implementation requires a knowledge of HACCP requirements, preparation of a HACCP plan, determination of Critical Control Points, testing, sanitation, standard operating procedures, training and various other implementation measures. Contact persons for HACCP within each state have been designated. As of September 2001, it remains to be seen whether the requirements of HACCP will be applied to on-farm processors who already enjoy the benefits of exemption from inspection requirements under the federal and some state laws. This is a developing issue that must be closely watched.

"Sanitary conditions," as indicated in the exemption for small-scale processing, is specifically defined in the Code of Federal Regulations. Most states do not adopt specific

definitions for sanitary conditions in their statutes, but include these definitions in their regulations. The producer should consult with their state regulatory authority concerning any regulations which may be in place which identify what the state requires for “sanitary conditions” to exist. The agency with authority varies from state to state; in some states it is the agriculture department, in others the health department.

The Federal requirements are found in Title 9 Code of Federal Regulations Part 416 and cover the grounds of the processing facility, construction of the facility, equipment and utensils used in the operation, and employee hygiene issues. The basic goal of sanitary condition requirements is the prevention of product adulteration through unsanitary conditions. Generally, the regulations require that:

- the operation must have a pest management program in place,
- buildings must be kept in good repair and be of sufficient size to allow processing, handling, and storage of the product so that adulteration does not occur,
- walls of the buildings must be built of durable materials impervious to moisture and cleaned/sanitized as necessary,
- lighting must be of good quality and sufficient intensity to ensure sanitary conditions are maintained,
- rooms where edible product is processed, handled, or stored must be separate and distinct from rooms where inedible product is processed, handled, or stored,
- ventilation must be adequate,
- plumbing must be installed to carry sufficient water to areas throughout the operation, carry sewage and liquid disposable waste from the establishment, and prevent adulteration of products,
- floor drainage must be adequate,
- sewage disposal must be sufficient to prevent backup of sewage into areas where the product is processed, handled or stored,
- an adequate supply of running water must be maintained,
- dressing rooms, lavatories and toilets must be sufficient in number and conveniently located but separate from rooms in which product is processed, stored, or handled,
- equipment and utensils must be sufficient for their purpose,
- employees must maintain cleanliness, appropriate attire and disease control activities.

Each operation is required to adopt written standard operating procedures that will ensure sanitary conditions exist at the operation and keep records that will reflect that the operation follows its standard operating procedures. Small scale processors should take every step to implement and maintain similar standard operating procedures regarding sanitary conditions.

## **STATE POULTRY INSPECTION LAWS**

The federal Poultry Products Inspection Act allows states to establish their own state poultry inspection programs which must be at least as rigorous as the federal inspection program. Poultry products inspected under state inspection programs may be sold, transported, and used only within the state boundary, but not across state lines. If a state does not establish its own state poultry products inspection program, the FSIS is designated to inspect poultry products, even if the poultry products are distributed only within the state. As previously indicated, about half the states have state inspection programs. Other states utilize the federal inspection program, usually with no specifically adopted state law or regulation to address the issue of poultry inspection.

**Small-scale poultry processors must comply with the inspection programs of their own states, even if their operation complies with the requirements in the federal law and regulations.**

\* \* \* \* \*

**Once again, throughout this document, “federal inspection” usually refers to examination of the birds themselves while they are being processed, and “state licensing” usually refers to the physical design and equipment requirements for poultry processing facilities.**



### **Current Status of the MPU**

The construction phase of the MPU is basically over. A great deal of time and \$70,000 has been spent in building the MPU. This includes the development of one docking station (a site where the MPU can be hooked up and used), which has been built at Kentucky State University.

The paperwork phase of the MPU is still in process. Any new idea generates a new level of paperwork and this idea is no different, especially since it deals with food, and poultry in particular. From the very beginning of this process all of the stakeholders in the issue were brought to the table. This includes farmers, the health department, numerous universities and the USDA Food Safety Inspection Service. All of these entities continue to assist us as we assemble the various regulatory documents required. The State Health Department has established a list of regulations for small-scale poultry processing in the state. A HACCP (Hazard Analysis Critical Control Point) plan will be established and it will be turned over to the State Health Department. In addition written Standard Operation Procedures (SOP), Sanitation Standard Operating Procedures (SSOP) and Good Manufacturing Practices (GMP) will be submitted. Various legal documents need to be prepared and insurance considerations must be taken into account as well. Once all the plans are approved and legal documents are finished, a permit for operation will be issued. A well trained crew should be able to process 400-500 birds in an 8-hour day with this facility. MPU regulatory procedures for aquaculture are currently under investigation. MPA regulatory procedures for rabbits have not begun at this time.

### **Requirements to Use MPU**

Once all the regulatory tasks are finished, training will take place to qualify people to use the MPU. In order to use the unit, an operator must complete a training program under the direction of Poultry Science, Meat Science or other professionals from the University of Kentucky, depending on species to be processed. In addition the unit must be set up at an approved docking station. The docking station must have a concrete pad, potable water supply, electric connections, composting station and easy access to a municipal sewer supply or a septic tank system with a grease trap. The cost of establishing a docking station for the MPU is estimated at \$4000-\$6000. Specifications for the docking station are still under development and differing specifications may be applied to different species or locations.

Trained operators of the MPU will be able to rent the facility for a fee and cleaning deposit. They will also be required to sign a user agreement specifying liability issues and responsibilities for operation. The MPU is a 20 ft. gooseneck trailer. It will be housed at Kentucky State University and may be picked up with a properly equipped pick-up truck.

### **Who Owns the MPU?**

Heifer Project International is the actual owner of the MPU, but the use of the unit will be guided by a management team consisting of representatives from the organizations responsible for the development of the unit.

### **When Will the First Training Take Place?**

Training cannot actually take place until after a permit has been issued and all the legal documents are ready. This process has taken longer than we anticipated due to the many regulations and legal aspects that are involved in food safety. We hope to have our first training in late spring of 2001.

### **When Will It Actually Be Available for Use?**

It is anticipated that it will take another few months after the initial training before the MPU will actually be available for use. In addition to the paperwork mentioned earlier, potential operators of the MPU will need to be trained and develop docking stations for use of the MPU. With this in mind, it is very likely that the MPU will not actually be used for commercial production until the 2001 growing season.

### **What Else?**

Final products resulting from MPU use will be labeled accordingly and can be picked up directly by the consumer at the processing site or can be shipped under proper refrigeration. Two small bumper hitch trailers with dual chest freezers and a small generator have been built to assist with the storage/transportation of finished product. These trailers will be available from the University of Kentucky and Berea College.

## Appendix D: Description of Washington MPU

### **Trailer:**

Interstate Cargo trailer 8' (102'')x20' equipped with the following:  
7' ceiling, insulated, walls and ceiling lined with Aluminum  
aluminum diamond plate floor  
partition wall @ 6' from rear, 1" off floor, with 24"x24" access door  
36" door at right front  
14" roof vent  
110vac 50 amp panel with 25' utility cable  
110v roof air conditioner, 13,500 btu.  
Fluorescent lighting: 2-4' in rear; 2-8' in front. Shatter proof bulbs.  
110vac GFI outlets (3).

### **Equipment:**

Bosch tankless water heater WR400 LP  
Scalder Ashley SS-30 120V 60HZ  
Picker: Brower BP25SS batch picker  
Bleed Rack 48" with 8 killing cones (Brower): modified locally to add blood collection  
trough  
Triple sink, handwash sink, soap dispenser, center pull towel dispenser.  
Stainless steel work top 18x60, with drain  
Evisceration table, shackle bar and 4 shackles. Table modified for wall mount and lower  
level shelf and drain.  
Scale Globe BSP30 (prints name, address, product information)  
SSPWT 30x48 (portable work station)  
Strip door curtain (for rear of trailer)  
Misc: , pinning knife, boning knife, slant point knife, shears, delunger, pocket  
thermometer, 4 vinyl aprons.  
Pressure washer (Sears, 6hp gas model)

### **Modifications:**

Plumbing, drains, installation of water heater, and gas connections by local shop.  
Floor drain gutter, modifications of evisceration station, fabrication of blood trough and  
mounting of sinks, work stations, scalder, by local fabricator.

|                        |                  |
|------------------------|------------------|
| <b>Costs</b>           | <b>\$28,220.</b> |
| Trailer:               | \$11,405.        |
| Equipment:             | 12,070.          |
| Systems/Modifications: | 4,745.           |

Appendix D: Sanitation Checklist (preoperation)  
Poultry Processing

**Location:**

**Date:**

**Checklist:**

1. Clean debris from slaughter area
2. Remove mobile equipment: picker, slaughter rack, cones, blood trough, boot wash pan and any other items
3. Clean, rinse and sanitize items in #, and rear end of unit with approved materials and according to label directions.
4. Clean, rinse and sanitize evisceration section of unit, including work stations and equipment
5. Move mobile equipment into place
6. Bring in ice if not already in chill tanks/ice carts.
7. Close doors to front, section
8. Eviscerating operators clean hands, arms, gloves, aprons and boots.
9. Eviscerating operators wearing hairnets.
10. Clean, rinse, and sanitize knives, delunger, scale tray, thermometers, and any other hand tools needed in evisceration room
11. Calibrate thermometer
12. All operators to stations
13. Overall visual inspection prior to beginning operations
14. Operations approved to begin?      **Yes No**
15. If No, list corrective actions taken:

This facility has been properly prepared and is ready for operation based on Sanitation Standard Operating Procedures for Poultry Processing.

\_\_\_\_\_  
Manager (print name)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Manager (signature)

**Appendix D: Sanitation Checklist (post)  
Poultry Processing**

**Location:** \_\_\_\_\_

**Date of operation:** \_\_\_\_\_

**Checklist:**

1. All inedibles are removed from the facility.
2. Unplug scale and turn off propane to scalding.
3. Clean, rinse and sanitize knives, delungers, scale tray, thermometers, and any other hand tools used in processing in triple sink.
4. Remove any debris from slaughter area.
5. Empty blood tank
6. Remove debris, clean, rinse and sanitize plucker, scalding, slaughter cones and rack and back end of unit.
7. Remove any debris from eviscerating room
8. Close doors, clean, rinse and sanitize eviscerating room (don't pressure wash air conditioner or electrical outlets).
9. Hand clean, rinse and sanitize around air conditioner and electrical outlets.
10. Inventory all equipment and supplies
11. Stow all small processing tools
12. Load and secure mobile equipment
13. Final visual inspection prior to closing
14. Close all doors
15. Dispose of inedibles according to waste disposal guidelines
16. Post operation sanitation measures complete? **Yes    No**

**17. If No, corrective actions taken:**

This facility has been properly sanitized and secured following operation and is ready for next operation.

\_\_\_\_\_  
Facility Manager (print name)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Facility Manager (signature)

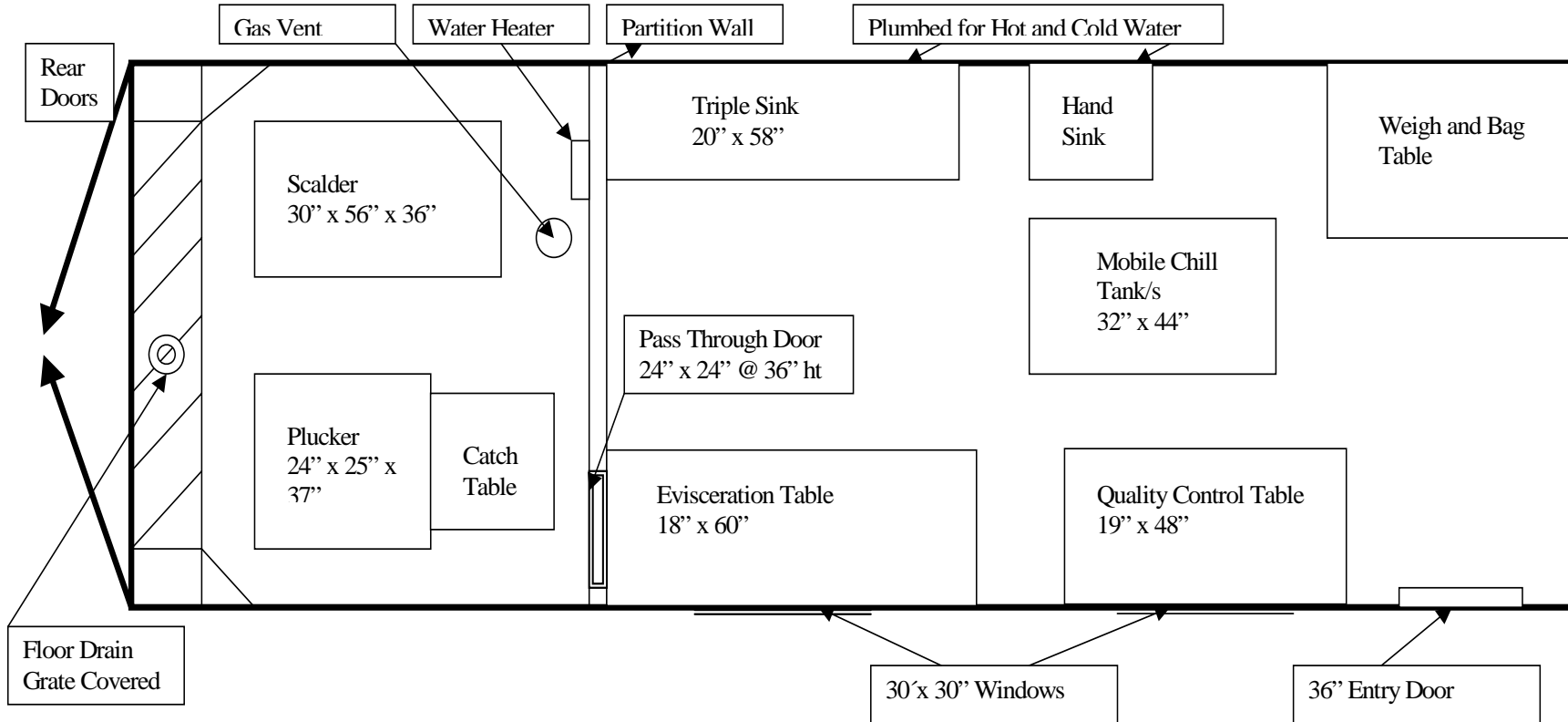
# Appendix D: Washington MPU Layout

## Attachment C: Floor Plan

8' by 20' with 7' ceiling  
 Double rear doors, 36" front/side door  
 30" x 30" windows over evisceration and quality control tables

Electrical:  
 50 amp service  
 CFI Outlets  
 Covered Florescent Lighting

Plumbing:  
 Sinks drain to rear  
 Wastewater collects at rear  
 Tankless gas hot water heater



# FINAL BILL REPORT

## ESHB 1754

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Synopsis as Enacted

**Brief Description:** Concerning the slaughter, preparation, and sale of certain poultry.

**Sponsors:** By House Committee on Agriculture & Natural Resources (originally sponsored by Representatives Eickmeyer, Schoesler, Sump, Hunt, Grant, Pettigrew, Haigh, McDermott, Blake, Quall, Rockefeller and Romero).

**House Committee on Agriculture & Natural Resources**  
**Senate Committee on Agriculture**  
**Senate Committee on Ways & Means**

**Background:**

State Laws:

Food Processing. Under the state's Food Processing Act (Act), it is unlawful for a person to operate a food processing plant or to process foods without obtaining a license from the Department of Agriculture (WSDA). For this purpose, "food processing" is defined broadly. It is the handling or processing of any food in any manner in preparation for sale for human consumption, but does not mean merely washing or trimming fresh fruit or vegetables that are being prepared or packaged for sale in their natural state.

Other provisions of the Act allow the WSDA to require a person who is processing food for retail sale to be licensed if the person is not subject to a local health permit, license, or inspection. These provisions also expressly allow the WSDA to waive the licensure requirement for a milk processing plant that is licensed under the milk laws in certain circumstances.

Custom Slaughter. The state's custom slaughter laws establish licensing and facility requirements for persons who slaughter and prepare uninspected meat as a service for the owner of the animal or meat. The meat animals covered by these laws are cattle, swine, sheep and goats, and ratites such as ostriches, emus, and rhea.

Federal Poultry Inspection Rules:

Federal rules administered by the Food Safety and Inspection Service of the U. S. Department of Agriculture require the inspection of the processing of poultry products. Exempted from the federal inspection requirement is a poultry producer with respect to

the poultry the producer raised on his or her own farm that is slaughtered by the producer. To qualify for the exemption, the producer cannot slaughter more than 1,000 poultry during a calendar year, the producer must not buy or sell the poultry products of others, and the poultry cannot move in interstate commerce.

**Summary:**

A special, temporary permit, in lieu of a license, is established under the state's Food Processing Act. It is for the slaughter, preparation, and sale of 1,000 or fewer pastured chickens in a calendar year by the agricultural producer of the chickens for the sale of the whole raw chickens by the producer directly to the ultimate consumer at the producer's farm. The fee for the permit is \$75.

The WSDA must adopt by rule requirements for the permit which must be generally patterned after those established by rules of the State Board of Health for temporary food service establishments, but must be tailored specifically to these activities. The requirements must include those for: cooling procedures, when applicable; sanitary facilities, equipment, and utensils; clean water; washing and other hygienic practices; and waste and wastewater disposal. The rules must also identify the length of time the permit is valid, which must be adequate to accommodate the seasonal nature of the permitted activities. In adopting rules, the WSDA must also carefully consider the economic constraints on the regulated activity.

The WSDA must conduct such inspections of the permitted activities as are reasonably necessary to ensure compliance with permit requirements.

These activities are expressly exempted from the state's custom slaughter laws.

**Votes on Final Passage:**

House 97 0  
Senate 49 0 (Senate amended)  
House 98 0 (House concurred)

**Effective:** July 27, 2003

## Poultry

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The type of birds, number of birds processed (slaughtered) per year and sales venue determines the licensing and inspection requirements for selling poultry direct to the consumer in Washington State. Poultry processing is regulated by WSDA and the United States Department of Agriculture (USDA).

### 1 to 19,999 small birds

#### 1 to 4,999 turkey

A poultry farm / processing business that slaughters from 1 to 19,999 small birds (e.g., chicken, pigeon, duck) or 1 to 4,999 turkeys annually can become licensed as a WSDA food processor. This allows the farm to sell their small birds and turkeys directly from the farm, at farmers markets, on Internet, to hotels, restaurants, food service institutions, grocery stores, or through wholesale food distribution within Washington State.

Contact the WSDA Food Safety Program for one-on-one technical assistance with the licensing process, your processing facility design and construction materials, equipment, cooling procedures, water source, and food science techniques for preventing cross-contamination of your poultry products. You can contact the WSDA Food Safety Program to talk with your Food Safety Officer about the licensing requirements before submitting your licensing application.

#### Pastured Chickens

Pastured chickens are defined as chickens that spend at least half their life span on pasture, range, or ground covered with vegetation that is suitable for grazing. Farms selling 1,000 or less slaughtered *pastured* chickens may either:

- Obtain a WSDA Food Processor License (see sales and technical assistance opportunities described above).
- Obtain a WSDA Temporary Permit to Slaughter Pastured Chickens, which restricts the farm business to on-farm sales of slaughtered chickens direct to the end consumer. Farmers market sales, direct to restaurant and grocery sales, Internet sales or any other sale avenues are NOT allowed under the WSDA Temporary Permit to Slaughter Pastured Chickens.
  - Prior to issuance of permit, a WSDA food safety officer must inspect the facility and determine the facility meets food safety laws & regulations. Applications must be submitted 6 weeks prior to first slaughter. Permits cost \$75 annually and expire December 31 of each year.

### Mobile Poultry Processing

Mobile Processing Units are allowed to operate in the state of Washington. Mobile facilities can be a feasible way for small producers to process poultry, and share in the cost of the facility with other producers. The mobile unit must meet regulatory requirements for a food processing facility and it must be fully enclosed. Each producer using the mobile unit must obtain a WSDA Food Processors License. Each producer can process up to 19,999 small fowl or 5,000 turkey birds per year.

**Contact:** WSDA Food Safety Program  
(360) 902-1876  
<http://agr.wa.gov/FoodAnimal>

#### **Example:**

The first WSDA certified Mobile Poultry Processing Unit is operated by the Community Agricultural Development Center in Northeastern Washington. Materials for the unit cost \$27,000. The Community Agricultural Development Center, WSU Cooperative Extension-Stevens County and WSDA Small Farm and Direct Marketing program provided funding, research and development for the unit. At full capacity, the unit is estimated to process 30,000 pastured birds/year. It is available for use in Northeastern Washington, and serves as a model for other communities across the state.

**Contact:** WSU Cooperative Extension-Stevens County  
Terry Swaggerty  
985 South Elm  
Colville, WA 99114  
(509) 684-2588  
[tswagerty@wsu.edu](mailto:tswagerty@wsu.edu)  
<http://stevens.wsu.edu/>

### **20,000 or more small birds & 5,000 or more turkey**

USDA inspection is required for businesses that slaughter & process 20,000 or more small birds per year or 5,000 or more turkeys per year. Contact the USDA Food Safety and Inspection Service for more information.