

Livestock 360°

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Program Leader

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New Year, New Staff, Same Dedication

We are excited to announce that we have a new Ag. Program Leader here in Ulster County and judging from his introduction below, he is going to fit in with the hardworking and innovative staff and farmers in the area. It took about two weeks to get a photo of him for this piece so if you do run into him please tell him that you enjoy the photo and have placed a copy on your fridge. So without further ado, may I introduce the newest member of our agricultural staff here in Ulster County, a man with a lot of experience in diverse environments who is excited to improve our area's food systems and to educate the public on the lifecycle of the giant panda (see below).



Born in central PA (Pittsburgh on one side, Philly on the other, and Alabama in the middle), Christian decided to go against the family tradition of Penn State, and attended the University of Texas at Austin and Texas State University where he received his undergraduate in Environmental Science and his graduate in Agriculture respectively. His work and research in small acreage diversified agriculture and urban agriculture teamed him up with University Extension services out of college and has led him to WI, FL, and Houston, TX (the Aggies loved having a longhorn on their staff) before his move to NY.

As he begins his adventure in Ulster County and the Mid-Hudson Valley region, he looks to establish programming over the next year that will bring insightful knowledge and research based information to the areas burgeoning small acreage/urban agriculture community. The different University Extension systems that he has worked for have helped build a large network of contacts throughout the Country, as well as helped him to establish a multifaceted approach to tackling problems and overcoming obstacles that he uses to build, evaluate, and re-tool programming to help individuals, groups, and communities find the best practices and information for them.

A meticulously clean person (although not a germaphobe), Christian took and passed the Allegheny County (Pittsburgh) Health Inspectors test so that he

(Continued on page 6)



Cornell University
Cooperative Extension
Ulster, Orange, Sullivan
and Dutchess Counties

Cornell Cooperative Extension provides equal program and employment opportunities

2 Of Local Interest Don't Get Caught in the Snow

Rachel Moody, Livestock Educator, Orange County

Even though winter has already come, we have plenty more to experience. Winterizing is very important to do in the fall and hopefully is already done, however, we need to continue certain practices throughout the winter. Animals may be more tolerant to cold and wind than people, but it is still important to make sure they're well cared for, especially when the weather becomes severe. How much protection and food they need really depends on the type of animal, but some things are consistent for all animals, such as ventilation, water and wind cover.

Shelter

Even though we would like the barn nice and warm for us to work in, remember that adequate ventilation is extremely important to prevent respiratory issues. Make sure the animals are blocked mostly from the wind and close up some drafty areas, but do not button the barn down entirely. This includes chickens! Pigs are the exception. Being more like humans with the lack of a natural coat, they will need the building to be completely draft free and have a little more heat. Cattle, horses, and small ruminants really just need a protected area where they can get out of the wind and rain.

Water/Feed

Water is a must for all animals in the winter. We have a tendency to make sure in the heat we keep water buckets full, but in the winter we may only check the water buckets/troughs once a day. Most of us don't want to be out in the winter elements so we don't check as often. I remember having to carry hot pails of water out to the water troughs and carrying in calf pails to thaw out. I know this was not a favorite pastime for me or my siblings. A lot of people have been switching to heated waterers, which is great, however you need to check on them occasionally to make sure they are still working correctly. Don't assume they are doing their job, even if you just purchased it. Make sure electrical wires are out of reach of animals, also some animals like to play with water heaters, so you may have to build a tank cover. Keeping the tank clean by scooping out organic matter daily is a good idea, but if not daily at least as often as you can. Just make sure when cleaning out the water, you avoid creating icy spots around the trough. The heater is also good for horses; warm water lessens the potential of gastrointestinal impaction.

Horses, cattle, hogs, sheep, llamas and poultry all require additional calories to generate body heat during cold spells. Cattle can take the cold better than other types of livestock, but they require extra feed, and plenty of water to drink. Before winter started hopefully you took notice of the body condition score (BCS) of your animals. Even if you did not, you need to continuously check your animals' BCS's during winter to make sure they are not losing weight. Fluffy winter coats can be very deceiving so make sure you are actually handling the animals and making physical contact. This is extremely important for both pregnant and nursing mothers. Whether you have a pasture or confined situation, feed intake is very important to adjust for the winter months. They eat to maintain their warmth. "A cow needs to eat more roughage in cold weather, to give her the calories for heat energy. If she doesn't have enough roughage, the pounds will melt off her as she robs body fat to create energy for warmth. More total pounds of roughage in her diet (extra grass hay, or even straw) can keep her warm, since the fermentation and breakdown of cellulose creates heat energy. High quality alfalfa hay supplies protein, calcium, vitamin A and other important nutrients, but not enough roughage for heat energy in cold weather. Alfalfa alone is not adequate for cattle in cold temperatures; cows will gobble it up and stand around shivering, losing weight" (<http://www.americancattlemen.com/articles/prepare-cattle-winter>). This is the same for all ruminants. A rough rule of thumb to compensate for the cold is to increase the amount of energy source by one percent for each two degrees of cold stress.



Photo Credit: Jason Detzel

3 Dairy and Beef Meat the Labels –Part 1 in the Series

MacKenzie Waro; Livestock Processing and Marketing Specialist for CCE Harvest NY

Local. Natural. Certified Organic. GMO Free. Non-GMO. Grass Fed. Antibiotic Free. Certified Angus. Hormone Free. Humanely Raised. These are just a few of the labels found on meats in the market, but what do they mean and can you use them on your meat packaging label?

The United States Department of Agriculture (USDA) and the Agricultural Marketing Services (AMS) hold the regulations for meat labeling on packaging. Visit fsis.usda.gov for further information and clarification. Over the next few newsletters, each term will be further identified. When using specific labels, the term must be written the way the USDA permits.

According to the usda.gov website, the term 'Natural' is a product containing no artificial ingredients or added color, and is minimally processed. Minimal processing means that the product was processed in a manner that does not fundamentally alter the product. The meat label must include a statement explaining the meaning of the term natural, such as "no artificial ingredients, minimally processed." Using the word 'natural' on the label is not enough information.

The term "No Hormones Administered" may be approved for use on the label of beef products, if sufficient documentation is provided to the USDA by the producer, showing no hormones have been used in raising the animal. Hormones are not allowed in raising hogs or poultry. Therefore the claim, "no hormones added" cannot be used on the labels of pork or poultry meat products unless it is followed by a statement that says "federal regulations prohibit the use of hormones."

Using these terms on meat labels and marketing materials can be tricky, and it is better to ask if you can use the terms rather than use them incorrectly. Visit fsis.usda.gov or contact MacKenzie Waro, NNY Livestock and Meats Processing Specialist, for more details. mlw55@cornell.edu

Harvest NY Upcoming Programs/Workshops

At SUNY Cobleskill

Lamb Processing Workshop: 2/3

Beef Processing and Cooking: 3/17

Lamb Processing and Cooking: 4/21

Pork Processing and Cooking: 5/17

At Cornell University

Cured Meat Classes: 3/14-15 and 5/31-6/1

HACCP: 3/28-29

Home Cured Meats: 11/10



Photo Credit: Jason Detzel



Biosecurity of Pigs and Farm Security

Adapted by Hank Bignell, Senior Livestock Educator, Captiol area Ag. Program

By Donald G. Levis, Professor Emeritus,
Department of Animal Science, University of Nebraska–Lincoln
Rodney B. Baker, Senior Clinician,
Veterinary Diagnostic and Production Animal Medicine, Iowa State University

INTRODUCTION

Biosecurity of pigs at the farm level is the set of practical measures taken to prevent entrance of infection into a pig farm and control the spread of infection within that farm. The goal of a biosecurity program is to keep out pathogens that the herd has not been exposed to and to minimize the impact of endemic pathogens. Pig farm security can be defined as the planning and implementation of a program to minimize various types of risk that can have detrimental effects on the farmstead and pigs. Biosecurity and security procedures are intertwined to enhance the health and productivity of pigs. Numerous factors are involved in the development and maintenance of a cost-effective program for biosecurity. These factors can be thought of as links in a chain; a biosecurity program is only as strong as its weakest link. The purpose of this publication is to provide information about the various aspects to consider when implementing and managing a biosecurity and farm security program. It is not practical, nor is it recommended, for every farm to implement all of the procedures described. All farm biosecurity and security risk factors are unique to that farm and, thus, each biosecurity plan should be farm specific. The best plans are created by working with a swine veterinarian or veterinary consultant who has extensive knowledge of the farm, employees, and local risk factors.



BIOSECURITY

The components of a pork operation that need to be biosecure are shown in Figure 1. The application of biosecurity measures differs among farms due to the geographic location of the farm, proximity to other pig farms, epidemiological situation (causes, distribution, and control of disease in the herd), type of swine operation, level of technology used for production, and whether other people are employed on the farm. The development and implementation of a biosecurity program provides an essential component of many on-farm food safety programs; greater consumer acceptability of the quality and safety of the food supply; healthy animals that are more productive; improved animal welfare; and improved efficiency and profitability for the pork producer. In addition, supermarket buyers and consumers want pork producers to use less medication when producing pork.

Biosecurity is made up of three separate, but often blended, sets of actions and overlapping components. These are bio-exclusion, bio-containment, and bio-management. The goals of the production unit or farm will determine how these are blended into a biosecurity plan. Most often, producers focus on bio-exclusion and bio-management while neglecting bio-containment. The purpose of bio-containment is preventing the spread of disease agents to neighbors or even long distance transfer, but also the very important process of protecting the food supply for consumers. It is the single most important component of strategies that will be implemented if a foreign animal disease is introduced into the United States. Even though it is often ignored in day-to-day production biosecurity, this component is extremely important in any pig production system and often is the “right thing



to do” for neighbors and other pig producers in a community.

Bio-exclusion is simply preventing the introduction of unwanted disease agents into the farm or system. This is where most focus and has been the focus of recent research. Bio-management is the combined effort to control economically important infectious diseases that are already present in the farm population. Room disinfection, vaccines, all-in/all-out pig movement and many other procedures designed to reduce the pathogen level or enhance immunity levels in the pigs are key components of bio-management. Each of these areas can have significant impact on the economic viability of a producer or producers in a geographically linked animal agriculture area.

Figure 1. Components of a pig farm required for adequate biosecurity.

Disease control is one of the most challenging areas for pork producers, regardless of whether the pigs are housed indoors or outdoors. Pork producers aim for minimal clinical disease status (biomanagement) because it is economically and technically infeasible to exclude all important pathogens from a herd of swine. However, certain disease agents should always be excluded since bio-management methods are ineffective while exclusion opportunities are practical. To develop a useful biosecurity plan, it is necessary to know: (1) the prevalence of diseases that can affect your herd; (2) how each disease is transmitted; (3) how each disease can be controlled; (4) how to prevent each disease from entering the herd; and (5) the potential cost of an introduction and outbreak.

All biosecurity efforts come with a cost, and ineffectual methods should be avoided. Likewise, production practices that impose the greatest risk should be the focus, rather than low-risk activities. It is essential to have a swine veterinarian help develop the written and detailed biosecurity plan. Biosecurity plans are intended to prevent adverse situations and improve the pork production business. All it takes is one breach of on-farm biosecurity to ruin a herd’s health status or that of a neighbor’s. This loss could have long-lasting and devastating production and financial effects on any farm. The following situations contribute the greatest risks to the health of pigs in a swine operation. These factors will be discussed later in more detail.

Adding new pigs to the farm without a quarantine period.

Failing to quarantine new additions for 30 to 60 days.

Failing to require testing for specific diseases prior to addition.

Failing to require vaccination for specific diseases prior to addition.

Allowing pigs to return from fairs, shows, or exhibitions without quarantine and testing.

Failing to prevent disease transfer via pig transportation, human contact, other vehicular traffic, or equipment used with more than one animal or used at other locations such as a buying station, slaughter plant, or off-site farm.

It is common for small- and medium-sized pork operations to house their animals outdoors. Preventing the introduction of disease is difficult when pigs are housed outdoors or have access to outdoor lots because producers cannot control pig contact with wildlife, stray animals, rodents, insects, aerosols (containing disease agents), contaminated soil, and people. Feral and wild pigs are one of the greatest risks to outdoor producers since they carry most pig disease agents, including pseudorabies and brucellosis, which have been eradicated from U.S. and Canadian domestic pigs. Securing an outdoor facility is always challenging; however, various procedures can be used that discourage unwanted visitors and pests.

6 Crops and Feed

Making Forage on a Very Small Scale: Understanding Seeds

Adapted by Jason Detzel, Livestock Educator, CCE Ulster County

Originally Published in Ufseeds <http://www.ufseeds.com/Cover-Crop-Growing-Info.html>

FARM SEED CHART

Purchase farm seed at www.ufseeds.com

COOL SEASON							WARM SEASON	
GRASS							GRASS	
Barley	BROADLEAF							Pearl Millet
Oats	Phacelia						Amaranth	Foxtrail Millet
Ryegrass	Flax						Buckwheat	Proso Millet
		LEGUME		LEGUME		LEGUME		
Wheat	Spinach	Turnip	Field Pea	Berseem Clover	Medic	Chickpea	Sunflower	Sudan Grass
Cereal Rye	Kale	Radish	Lentil	Red Clover	Birdsfoot Trefoil	Cowpea	Safflower	Teff
Triticale	Canola	Beet	Lupin	White Clover	Sainfoin	Soybean	Squash	Grain Sorghum
Annual Fescue	Mustard	Carrot	Vetch	Sweet Clover	Alfalfa	Mung Bean	Chicory	Corn

(from page 1 New Staff)

could receive a Health Inspectors license (now expired) just so his friends would listen to him when he told them how dirty their kitchens were. And, surprisingly, although he has been around horticulture and agriculture for most of his life, rather than possessing a “Green Thumb”, he has quite the opposite, killing his own plants, usually in a matter of a few short weeks; to be fair, he did live in Texas for a long time and nothing ever looked like it had enough water.

He also once had to do research on Pandas for a scientific journal article, and so it does not feel as though it was done in vain, he likes to share a few findings with people:

Although their stomachs are not set up to process bamboo and the plant itself contains very little nutrition, Pandas rarely eat anything but bamboo, therefore in order to meet their nutritional needs, they must eat 15-83lbs of bamboo every day.

Pandas only eat sitting down on their haunches, so as industrialization in China continues to grow and low lying bamboo forests die back and the forest line recedes up mountain slopes, Panda deaths due to rolling down mountain sides have increased each year (seriously, you can’t make this kind of stuff up).

Often portrayed as lovable cartoon characters and found worldwide as adorable children’s stuffed animals, people forget, or don’t know, that Pandas are one of the most aggressive bears in the world (google some videos of people trying to pose for pictures too close to their cages at zoos)

Now you have learned three trivial facts you will never be able to unlearn.

Direct On-Farm Marketing of Slaughter Lambs and Goats

tatiana Stanton , Cornell Small Ruminant Extension Specialist

This article has been condensed because of space constraints. I highly encourage you to explore the rest of the piece at the link below

<http://www.sheepgoatmarketing.info/education/onfarmmarketing.php>

There are many ways to market lambs and slaughter goats in the Northeast US. One method is to forgo middlemen and instead market your live animals directly from your farm to consumers. Direct on-farm marketing can be time consuming and stressful depending on how many of its inherent responsibilities you end up assuming. However, it's also a great chance to meet new folks and learn about a diverse range of cultures and ethnic groups. Before you attempt direct marketing, you need to determine what size and age lamb or goat kid makes the most sense for you to raise based on 1) what consumer demand is in your area and 2) what the costs of production and expected returns are to grow animals out for each category. You also need to understand what additional responsibilities and expenses you may incur when selling animals directly to consumers. This article outlines some of the duties involved in on-farm marketing.

By "direct on-farm marketing" I refer to two different scenarios, each operating under a different set of legal requirements. In the first scenario, the customers come to the farm and pick out an animal for their family's consumption, and either slaughter the animal at the farm or load it in their vehicle to slaughter elsewhere. The animal does not need to be slaughtered under USDA federal inspection because the activity falls under the "personal use exemption" 9 CFR 303.1(a)(1) which allows the owner of an animal to slaughter the animal themselves if it is for consumption only by them and their family and friends. The second scenario is the standard "freezer trade" where a customer orders an animal to be picked out for them and delivered to a slaughterhouse for slaughter and processing according to their cutting instructions for consumption by their family and friends. The customer does not necessarily have to see the animal in advance but should have communicated directly with you when placing the order for an animal. In this case the animal does not necessarily have to be slaughtered under USDA federal inspection but can instead be slaughtered at a custom exempt slaughter house under the "custom exemption" 9 CFR 303.1(a)(2). You can transport the animal to the slaughterhouse as a service for the new owner.

Depending on the clientele in your local area, you may not have much choice as to which of these scenarios you get involved with. Rather, your clientele may have a strong preference for only one method of direct marketing. Your ability to conform to their needs may determine whether on-farm direct marketing is going to work for you.

Prior to getting involved with either scenario, it's a good idea to form some plans for managing either situation on your particular farm. Here are some considerations: Initially a producer will need to advertise and actively seek clientele. It is a good idea to have the slaughter animals separated from the breeding stock or to have an easy way for customers to identify which is which. Posting prices and sticking with them will help cut down on the time spent bickering over prices. Farmers will need to decide if they are able and/or willing to be involved in the slaughter process by either providing a place for the customer to slaughter the animal or by providing transportation to a slaughter house. A farmer may instead want to work only with customers that pick out an animal and then transport it off farm for slaughter. Either of these channels may work well for farm families who enjoy dealing with numerous customers one-on-one and meeting new cultures.

1. Clientele – Your clientele can range from recent immigrants (possibly refugees) to your country to well established citizens whose families pride themselves on keeping alive ethnic traditions of doing their own selection, slaughtering and preparation of lamb or goat for family celebrations. In either case you may find an extended family descending on your farm. Keep in mind that the visit to your farm may be considered a special outing. If you farm for the isolation, this family outing can be a little disconcerting though likely beneficial for your mental health! It can also be time consuming depending on how you organize the visit.

2. Advertising – If you live near a city with a large refugee community, you can advertise in refugee newsletters and at government offices and religious centers that offer refugee services. However, refugee communities



can be close-knit and wary of business that doesn't involve a personal touch. If possible, arrange to talk to a gathering in person about your business. In reality though, many goats and lamb producers who market large quantities of animals directly have found that the refugee community seeks them out and no further advertisement is necessary. More aggressive advertisement can be accomplished by writing short articles accompanied by photos about your farm and farm produce and submitting these to magazines, radio shows, TV stations, newspapers and associations that cater to ethnic groups that historically consume goat meat.

3. The farm visit – newly arrived refugees may not have easy access to cars and phones. This translates to "they may show up unannounced to purchase a lamb or goat any time they can arrange a ride out". The timing of this visit often immediately precedes specific holidays. If you want to limit on-farm purchases to specific days, try to find out what times of the week are convenient to both you and your clientele and then come up with a plan to publicize these times to the refugee community. Customers who are long time citizens are generally quite willing to phone ahead to make an appointment to pick out animals. However, particularly the first time they come to your farm, they may wish to bring the whole family. This means it is generally convenient for them to visit on a weekend. Keep in mind that many families do not have large refrigeration or freezer capacities hence they may **need** to slaughter on the day preceding or morning of a specific holiday. On-farm marketing may not be ideal for your family if weekends and holidays are your only private times together.

4. The farm dog – no matter how friendly your farm dog is, it is often best to be prepared to offer to confine him when customers arrive. Folks from the city may not be comfortable around an unrestrained dog. Immigrants may come from countries where dogs are trained by private owners or the military to attack people. A refugee who has had family members hunted down by dogs is not going to be cured of his or her dog phobia on the basis of your saying "Don't worry, she won't bite."

5. Location of your "for sale" goats – Try to have your slaughter kids separated from kids you are not offering for sale. This way you don't have buyers pointing at kids you are retaining as breeding stock only to have you say repeatedly, "oh sorry, that one is not for sale". Remember, customers may not readily understand that the best animals are kept for breeding future generations. Instead they may get the impression you are attempting to shortchange them. If it is not possible to separate slaughter kids from the rest of the herd, have them clearly marked in advance so buyers have an easy time grasping what pool of animals they can select from. Try to have slaughter animals located at easy access and in an area where it is easy to catch up individual animals. It will save you time if you do not have to walk out to a far pasture or bring in the whole herd to corral a selected animal.

6. Bargaining – Unless you love to bargain, try to have a fixed price you offer all on-farm customers. If you allow the price to vary from customer to customer, the word will get around in the close knit communities you may be selling to. Consequently, you may find your on-farm transactions taking forever because you and the customer are bickering over prices. I have had customers who I have grown close to suffer major economic reversals or family tragedies. In these situations, I have made them a gift of a part or whole carcass rather than lowering my prices. This does not mean that you can't have a range of prices depending on the quality, age, size of the goats you are selling. Just make sure that your customers can easily identify why an animal is being assigned to a certain group and what your fixed price is for that group.

7. Slaughter arrangements - If your plan is to permit on-farm slaughter, be sure to check with your state to find out the state regulations on allowing customers to slaughter on-farm. Some states have additional requirements to the "personal use exemption" in the federal code and may require that a consumer who has purchased an animal for their own consumption slaughter the animal only on their own premises rather than on the producer's farm. If there are any questions about state requirements on this topic ask for a printed copy of the regulation and a layperson's interpretation of it. It is also a good idea to find out how other nearby producers handle these transactions.

Liability- Allowing customers to slaughter on-farm may be opening up your farm to liability issues. Recently, some farmers have reported that their insurance companies have tried to drop them when they have been open about the amount of on-farm slaughter that goes on at their farm. Insurance companies may ask that your customers carry a certain amount of liability insurance themselves. In this case, you can ask what your insurance company charges for a short term (i.e. day long) certificate of liability insurance and whether they would be willing to sell such policies to your customers. In earlier years, more insurance companies seemed to be aware that on-farm slaughter by consumers was legal in New York and did not seem as concerned about liability coverage.

In some cases the customer loads the lamb or goat in their vehicle to transport for slaughtering elsewhere. It is your responsibility to make sure the customer is transporting the animal in a humane manner. Closing the animal in the trunk of a car DOES NOT qualify and can result in the customer being ticketed.

When it comes to facilities, at bare minimum you will need to provide a tree or beam with a hook affixed to
(continued on page 10)

9 Poultry

Winter Care of Your Laying Hens

Adapted from: Richard J. Brzozowski, University of Maine Cooperative Extension by Michelle Lipari, CCE Sullivan County7

Keeping laying hens productive through the winter months means keeping them well fed, well watered, healthy, and comfortable. Below is a checklist of management tips that is designed to assist the farmer/grower in keeping their farm flock comfortable. Any stress on the birds could force a molt and the decline or end of egg laying.

Light — Provide 14 to 16 hours of light per day for your laying hens. There is no advantage to supplying more light than this. A 60 watt incandescent light or 13 watt Compact Fluorescent or comparable LED bulb hung at 7 feet high with a white downward reflector will provide adequate light for a 200-square-foot pen. Place lights on a timer for convenience and consistency. Keep light bulbs clean for light quality and quantity.

Spacing — Provide two to three square feet of floor space per bird. Birds need ample space for their comfort, reduced stress, and ease of movement.

Roosting Space — Provide comfortable roosts so that all birds can roost at the same time. Provide at least 6-8 inches of linear roost space per hen. Roosts should be 1.5-3 inches in diameter.

Ventilation — There needs to be an exchange of air for laying hens to be healthy. This can be accomplished with intake or exhaust fan(s) or natural ventilation. If the smell of ammonia is evident, adequate ventilation is lacking. Proper placement of the fan is essential for effectiveness. Ammonia tape can be used to monitor and detect high levels of ammonia.

Check for Drafts — Although you want a good exchange of air in the poultry house/pen, you need to make sure all areas of the henhouse are draft-free.

Sanitation — Keep all areas of the pen clean. Remove soiled feed and dirty water immediately. Keep feeders, roosts, nests and waterers clean. Keep bedding (litter) dry and clean. Wet or frozen bedding should be removed and replaced with clean dry shavings.

Warmth — Laying hens begin to slow egg production when temperatures drop below 55 degrees F. Provide adequate warmth for the birds. This can be accomplished through insulating the floors, walls and ceiling with fiberglass matting or styrofoam panels. Consider supplemental heat if birds cannot adequately heat the area with body heat alone. Infrared heaters (powered by propane or electricity) may be the most efficient method of heating the area. Infrared heaters are said to be effective by heating the bodies and not the air. These heaters can be controlled with a thermostat.

Feed — Monitor feed use through the winter. Compare these records with feed use in other seasons. Supply a 14 to 17% crude protein layer ration so the birds are never without feed. Birds typically need extra feed in cold and freezing temperatures.

Water — Provide ample clean water daily to the flock. Keep water from freezing with specially designed electric heaters, warm bricks placed inside the watering container or frequent changing. Watch for leaks on waterers that freeze. Birds will suffer if they are without water for more than 10 hours.

Culling — Remove sick, weak, or unproductive birds from the flock. Be observant of the poultry every day — watching them move, eat, drink, and interact.

Nesting — Provide adequate nest boxes (1 nest box per 5 hens) and keep bedding inside the nest box clean and dry. Pine shavings make the best nesting material.

Rodent Control — Keep rodents out by using traps or poisons placed strategically in bait stations. Keep the traps and poisons away from the birds and pets.

Egg Collection — Collect eggs at least twice each day to prevent eggs from freezing.



(Continued on page 10)

Frostbite — Birds can get frostbite on extremities (combs, wattles, and toes). Some flock owners like to cover the combs and wattles with petroleum jelly. For mild freezing, petroleum jelly helps, but coop management is the real key. Flocks can do well at sub-zero temperatures if you use a deep litter system and an in-bucket water warmer, with no external heat required.

Observe Birds — Take time to observe your birds each day. Watch the birds' behavior around the feeders, waterers, roosts, and nest boxes. Handle a random sample of birds to check combs, feet, toes, eyes, legs color, vent size, and general appearance. When handling, look for signs of external parasites.

Weigh Birds — Randomly select a few birds to weigh. Record the weights and check weekly to make sure birds are not losing weight. A bird that is laying heavily may lose a little weight through the winter.

Dust Bath — Hens naturally clean themselves by dust bathing. A shallow wood or metal box with 3-4 inches of clean sand, wood ash or a mix of sand and wood ash would be a good addition to the hen house or coop for the winter months.

Winter Biosecurity — Designate and use specific chore clothing and footwear when feeding, caring and handling poultry.

Predator Pressures — The winter season can bring about an increased predator pressure on poultry. This likely occurs because the number of the predator's natural prey may be in decline due to cold temperatures, snow cover and natural cycles. Make sure your henhouse or coop is secure so as to prevent entry by 4-footed or winged predators. Various methods and techniques can be employed to prevent predator loss

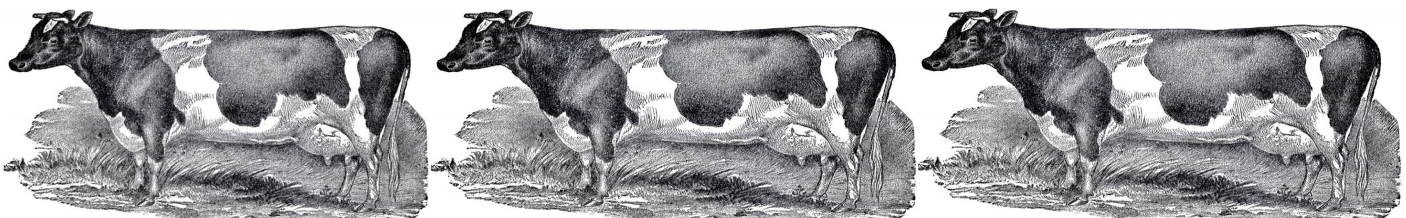
(small ruminants con.)

it for hanging carcasses and a clean 5 gallon plastic bucket of potable water. There are several ways to restrain small ruminants for slaughter that are more humane than simply hoisting them up by their hind legs. Ideally animals should be slaughtered on the ground or on a double rail prior to being hung. To get an idea of humane restrainers you can build for your own farm, study the basic principles of humane restraint outlined by [Dr. Temple Grandin](#) on her website. One example of a double rail for small ruminants that can be greatly simplified for on-farm use is shown on the web at <http://www.sheepgoatmarketing.info/education/restrainer/slideshow/index.html>.

If you provide a table for cutting up carcasses, you also need to provide provision for sanitizing the table between customers. Same goes for any equipment, utensils you lend out. Some farms go as far as providing a fire pit for cooking the meat, searing the hair off goat heads, etc. or even a picnic area for the resulting feast. However, these facilities will increase the time families spend on your farm. Before you provide them, consider how much interruption of your private life you are comfortable with. Depending on the time of year, your butchering area may need protection from rain, cold and snow.

Many cultures consume most of the animal. In this case, disposal of the remains is relatively simple. If people are washing stomachs and intestines, providing extra water or a hose is helpful. You can then direct them to empty rumen contents, etc. into a wheelbarrow for you to properly discard later. Hides can be salted and either tanned by your family or stacked for shipping to a professional tannery. However, if you have lots of customers or customers who do not want the "innards", you need to make more sophisticated provisions. Some options include: 1) having a pre-dug trench for customers to wheelbarrow the remains to, 2) paying a rendering company to pick up the offal weekly, or 3) composting the remains on farm. Composting of offal is legal in many states. For example, in New York, on-farm disposal of materials like offal that are generated on-farm does not require a solid waste permit and is exempt from DEC regulations. However, you must conform to local ordinances and cannot pollute water sources. It is best to check with state and local officials to ensure disposal is done in accordance with any local regulations.

If you are composting lots of bones and offal you need to mix them with a low nitrogen, high carbon medium to obtain the right carbon to nitrogen ratio for rapid composting. Thus, wood chips, sawdust, straw, and old round bales of grass hay are more suitable as a medium than are soiled bedding, manure or lawn clippings. The Cornell Solid Waste Management Center publication, <http://compost.css.cornell.edu/naturalrenderingFS.pdf>, pro-



The Food Safety Modernization Act

Anika Danielle Zuber , NNY Regional Ag Team - Dairy Processing Specialist

In 2011, President Obama signed the Food Safety Modernization Act (FSMA) into law. Essentially, FSMA gives increased oversight to the Food and Drug Administration in enforcing preventive controls. These preventive controls are the measures that food processors take to ensure any food safety hazards are reduced or minimized to an acceptable level. According the CDC, 1 in every 6 Americans get sick from a foodborne disease every year. Their focus is to minimize these preventable illnesses. There is an animal food and human food portion of the final FSMA rule. Compliance dates are different for companies depending on their size.

People familiar with food processing may think FSMA sounds similar to a Hazard Analysis Critical Control Point (HACCP) plan. In HACCP, if there is a specific step in the processing of food that eliminates a hazard, that step is a “critical control point” (CCP). An example of this would be the pasteurization step when bottling fluid milk. It is a CCP because it provides a 5 log reduction of pathogens in milk, proving it safe for human consumption.

FSMA still includes critical control points, but the program extends beyond preventive measures in the process flow alone. FSMA requires processors to take a closer look at whether they require supply chain preventive controls, allergen preventive controls and sanitation preventive controls in addition to the Process Preventive Controls we refer to as CCPs.

Supply chain preventive controls apply to any ingredient containing a hazard that is not controlled in the manufacturer’s process. Allergen mislabeling is the number one reason for food recalls, thus ensuring proper allergen control and labeling is critical. Sanitation preventive controls are necessary where there is a likelihood of pathogen or allergen contamination. Of course, CCPs remain an important preventive control.

In order to address the Food Industry’s need for this training, Harvest New York and the Cornell Food Science Extension team has been offering courses for individuals to become trained on this rule through a curriculum the FDA recognizes. Our next training is February 14-16 on Cornell’s Campus. The link to register is here:

<https://dairyextension.foodscience.cornell.edu/calendar>

For more information on FSMA, please see the link below:

<http://dairyextension.foodscience.cornell.edu/programs/regulatory/fsma-resources>



Participants of our Preventive Controls Course making model food safety plans





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WEEKLY LIVESTOCK UPDATE

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