

AGRI-FACTS

Practical Information for Alberta's Agriculture Industry

April 2000

Agdex 450/20-2

Raising Organic Pasture Poultry

Producers are choosing to grow pasture poultry because they believe it is the most ethical way to grow poultry. The birds are handled in a low-stress way and are always in the fresh air after three weeks of age. They are not subjected to living on and pecking at their own droppings and have fresh, green, growing grass available to them at all times. Another reason for choosing organic is that some producers do not want people to consume the medications and by-products that a conventional bird receives. They also want to avoid the herbicides and pesticides that are sprayed on conventional grains. These producers want people to have a choice when purchasing their food and feel they are offering a healthy alternative.

Growing season

The number of rotations planned for the summer and where you are located will help determine when to get your first chicks. In central Alberta, a usual practice is to receive the first batch of birds from the hatchery in mid-April and have the last flock come off the pasture in mid- to late-September.

Birds

When sourcing birds, choose a hatchery you can trust and establish a good relationship with the hatchery staff. Let them know how you are raising the birds, and they can help you select the best breed for your situation. Here are some possible breeds:

- Hubbard – a barn bird that grows fast and evenly
- Cornish Cross – a farm bird that grows slower and unevenly
- Arbor Acre – a barn bird that grows fast and evenly
- Arbor Acre-Peterson Cross – a barn bird that grows fast and evenly

- La Belle Rouge – a pasture bird that grows slower and fairly evenly.

Remember that birds bred for the barn do best in a controlled environment, with very little heat variation.

Brooding

The brooder floor is covered with 4 inches of wood shavings to give the chicks a good bed that will absorb moisture effectively. If there is not enough bedding or a fresh sprinkling is not put down every day, there will not be enough carbon material to mix with the droppings. If you can smell ammonia when you walk into the room, you do not have enough bedding and ventilation. The ammonia is very hard on the lungs of the birds.

The chicks are received when they are hatchlings—less than 24 hours old. They do not receive any medication or feed at the hatchery. Upon arrival at the farm, the birds' beaks are individually dipped into water before the birds are placed under the brooder lamp. This dipping is done to ensure that each bird gets its first drink within a reasonable time and does not have to rely on its store of nutrients for survival until it finds the waterer.

A natural gas brooder hood seems to provide easier heat control than brooder lamps. There is also no light given off from the natural gas brooder, which keeps the brooder dark at night. The brooder room should be kept around 85°F. Directly under the heat lamp, the temperature should be close to 90°F. Place the thermometer at bird level to get an accurate reading of the temperature the birds are living in.

A circle of cardboard is placed under the brooder hood to keep the chicks close to the heat. This cardboard is expanded daily as the birds grow. It is a good idea to always have rounded corners in

The birds are handled in a low-stress way and are always in the fresh air after three weeks of age.

your brooder barn to prevent the chicks from piling in corners.

Feed is placed on paper on the brooder floor for the first two days, so all the birds have easy access to the feed at the same time (see later discussion on “Feeding”). Watch and listen to the chicks. They will be the first to tell you if it is too hot or cold or if they are feeling a draft. If the chicks stick to the outside of the brooding enclosure, it means it is too hot under the lamp. If you find your chicks huddled in the middle, they are indicating that they are cold.

When chicks congregate in only one portion of the enclosure, it is an indication that there is a draft they are avoiding. To check for drafts, use a piece of tissue and hold it in the enclosure at chick height, or use a burning incense stick and see which direction the smoke drifts. Comfortable chicks will run all over their brooding area with happy chirps. A chick with a constant high-pitched chirp is trying to tell you that something is wrong.

After the first couple of days, slowly reduce the temperature under the lamp until it reaches room temperature. This reduction should be accomplished by the end of the first week. Once the brooder lamp has been shut off, the room temperature can be turned down gradually so that by the end of the second week, the furnace is off.

At this point, it is time to start acclimatizing the birds. Open windows during the day for the first couple of days and then start leaving them open later in the evening.

The birds will be going outside by the end of the third week, so it is important that they are accustomed to the outside temperatures, both day and night, before they go outside. It is better to delay the transfer of the birds to pasture for a few days if they are not ready than to risk death loss with them piling together on a cold night.

Two points to emphasize: put fresh bedding down daily for the chicks and make sure there is adequate ventilation. Too much humidity from damp bedding or not enough air circulation can lead to pneumonia in the brooder or can cause death loss later in life due to brooder stress.

Feeding

The chicks should be started on certified organic feed, free choice, with a protein of 21 per cent for the first 3 weeks and then changed to feed with 19 per cent protein. Find a feed supplier you can trust who will give you a guaranteed analysis of the feed you are purchasing.

The feed must contain all the essential vitamins and minerals in as natural a source as possible to keep the birds healthy. They do not receive adequate micro-nutrients from the grass for a healthy diet. Fertrell’s Poultry Nutri-balancer in the feed seems to improve the health of the birds.

It is also important to ensure that the feed contains enough fat to keep the birds warm. Make sure your feed supplier knows you are raising your birds on pasture because they have different nutritional needs than birds raised in conventional barns.

It is important that the birds not run out of feed as this causes a rush to the feeder when it is filled and adds unnecessary stress. Their grain ration must be well balanced with natural vitamins and minerals as well as a good source of energy and protein.

The water is provided by either a bell waterer or nipple waterer that can be filled using a water pipeline or else gravity-fed from a bucket placed on the top of the pen.

On pasture

Place the birds in 11 x 11 foot x 2 1/2 foot pens that have a tarp covering 3/4 of the pen with a mesh front. Place about 70 to 80 birds in each pen. More than 70 to 80 birds puts added stress on the flock and will likely increase the death loss. This pen provides plenty of access to fresh air and sunshine but also gives shade and shelter from the wind and rain. The pens are low enough that the birds stay warm at night.

Move the pens daily onto fresh pasture. A counter-weighted dolly is placed under the back of the pen to raise the pen a couple of inches off the ground to prevent catching any birds while the pen is being moved. A furniture dolly is used to raise the front of the pen and pull it.

Pasture

Pasture land should not be too rolling as it is hard to move the cages on very uneven ground and hard to pull the cages uphill. Do not place the cages in areas that are low enough to stay wet after a rain, as the birds do not like being on wet ground.

The grass can be any mixture of pasture grasses, but legumes (clover/alfalfa) at heights of 4 to 8 inches are preferable. If the grass is much taller than 8 inches, the birds eat less. Grass of that height also makes the pens more difficult to move.

The birds should be on the grass when it is young and vegetative—the more vegetative, the more grass they will eat. Graze or mow the pasture a few weeks prior to the birds being placed on the particular piece of land, to help control the height of the grass. Keep in mind the time of year and weather conditions to allow enough time for regrowth.

If the ground remains wet for several days, spread a layer of straw on the pasture and move the pens onto the straw. The birds do not like to be wet and are very susceptible to pneumonia if they get damp and chilled. The pens should face east, so the birds get the morning sun and have shelter from the prevailing winds.

To grow certified organic pasture poultry, the land must be certified organic through an organic certifying body.

Moving to pasture

At three weeks of age, the chicks are moved to pasture. The chicks are corralled a few at a time using a long piece of cardboard. Do not gather too many at once, or the chicks become very stressed and have a tendency to pile and try to walk on each other to escape. This behavior could result in death loss as well as injured birds from scratching. Use the same crates that are used when taking them to slaughter, but place a piece of newspaper in the bottom to prevent their feet from going through.

The birds are generally placed on pasture in mid-May or later. This movement depends on the weather and how many sessions of birds you plan on doing over the summer. It is advisable to have your last flock off the pasture by mid-September because of the cold fall nights.

Your birds will grow faster during the mid-summer months because of the long days and warmer nights, although some producers have had chickens into mid-October even with snow and cold weather to contend with. The death loss did not increase excessively, but the birds did not gain much weight as they were using all their feed to maintain their body heat.

Causes of death loss

Ascites (or water belly): Ascites can be caused by a few factors, including stress or cold nights. The heart and lungs have a hard time keeping up with the fast growth of these birds, and when the bird is put under extra stress, these organs slowly shut down. The symptoms are a slow moving, hunched-over bird that is breathing very heavily while the skin, comb and wattles turn purple. The carcass will be filled with a clear to milky liquid or gel.

Pneumonia: Pneumonia is caused by the birds being chilled and/or damp for any length of time. It can also be caused by a virus. The bird will be reluctant to move, and you will hear a rattle when it breathes.

Heart attacks: Heart attacks can be caused by stress or feed that is too high in protein. Have your feed protein level checked and adjusted accordingly. The dead bird will be found on its back but will have no discoloration to its skin.

Hepatitis: Hepatitis is caused by a virus. The bird's skin will be very pale, including the comb and wattles. The liver will be very pale when examined.

Enteritis: Enteritis is also caused by a virus. The bird's liver will be paler than normal and will have dark spots on it.

Predator control: There are many ways to control predators around your pasture poultry pens. Llamas can be used to control coyotes, but the llamas were not effective against foxes or skunks. Putting up a perimeter of flex net, an electric mesh netting, can keep all predators at bay. The grass must be mowed where you are placing the netting to prevent the current from grounding out. With sufficient net fencing, it need only be moved every seven days.

Shipping

The birds remain on pasture for five weeks and are then gently placed in shipping crates and taken to the slaughter facility. Raise the front of the pens and rest them on pronged poles, create a barrier with the shipping crates and then load the birds.

Load the birds as late as possible, so they are not off feed for much more than 12 hours. If the birds do not have feed or water for over 12 hours, some carcass weight loss will result due to shrinkage. During hot weather, load the birds into the crates after sunset.

Although only eight to ten birds are in each crate, they get no shade when sitting in the full sun. Major death loss has occurred in the past because the birds were loaded in the hot sun.

If at all possible, be at the slaughter plant first thing in the morning. Contamination of the carcass during the slaughter process can be avoided if the birds are without feed overnight. The time lapse gives enough time to allow the gullet to empty sufficiently to avoid contamination.

Slaughter facility

To maintain the certified organic status, the birds must be taken to a certified slaughter facility. If you are unsure of their certified status, ask for a copy of their Organic Certification Certificate. Be sure the facility you choose handles the birds gently.

A bird that has received proper feed and adequate grass will obtain an average of 4 lbs carcass weight after 8 to 9 weeks. The live bird-to-carcass ratio is approximately 72 per cent.

There are many things that can be done to reduce the number of utility birds you take home. These steps start right from loading them into the crates on your farm to how they are handled at the plant. When loading the birds, pick them up with both hands encasing the wings against the body at the same time. This approach prevents bruising of the wings, which happens when they flap them against the crate. Place the birds gently into the crate—do not throw them—to prevent bruising of the breastbone.

At the slaughter facility, make sure they space the birds far enough apart so that they do not flap their wings against each other. Also ensure that the birds are handled gently when removing them from the crates, to ensure the legs do not become dislocated or bruised. It is inevitable that you will have some utility birds, and of course, you cannot charge as much for a utility as you can for Grade A.

While the birds are going through the plant, talk to the government inspector about the condition of your birds. The inspectors are always willing to tell you why some of your birds are being pulled off the line.

Certification

To sell birds as Certified Organic, the producer must obtain certification through one of the organic certifying bodies in Alberta.

Labor

When raising a small number of birds, it is reasonable to expect to do all of the labor during the brooder to pasture transfer and the loading for shipping to the slaughter facility yourself. If your production numbers increase dramatically, it is a good idea to hire some local youth to help in the catching of the birds. This approach not only reduces stress on the birds, but it also reduces your stress.

Note: This method of raising organic pasture poultry closely follows the format outlined by Joel Salatin in “Pasture Poultry Profits” and was provided by Sheila and Ron Hamilton. Sheila and Ron made some changes to Salatin’s format to suit the Alberta climate. The Hamilton farms in central Alberta and cautions that conditions change from farm to farm, and techniques may need to be adjusted for another farm.

For further information, contact:

Mike Dolinski

Alberta Agriculture, Food and Rural Development