

Bulletin #2217, Winter Care of Your Laying Hens

Winter Care of Your Laying Hens

By Richard J. Brzozowski, Poultry Specialist, University of Maine Cooperative Extension

For information about UMaine Extension programs and resources, visit extension.umaine.edu. Find more of our publications and books at extensionpubs.umext.maine.edu.



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. Round stock is preferred. Clean tree branches with bark work fine as roosts.
- **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. An exhaust fan with a thermostat is a reasonable investment and works well without causing drafts. Proper placement of the fan is essential for effectiveness. Ammonia tape can be used to monitor and detect high levels of ammonia. Ammonia levels in the poultry house/pen should be kept below 20 parts per million (ppm).
- **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. Check for drafts at high points, low points, and at every corner. A technique for checking is to wet your bare hand with water and feel for drafts or use a

piece of tissue paper and watch for movement. A candle could also be used to check for drafts, but this method is a bit more hazardous.

- **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. Deep bedding is an insulating factor in keeping the feet of birds from getting too cold. Pine shavings are the preferred material for bedding. Use 4-6 inches as a bedding base. Clean out pens in spring and fall. Then add fresh bedding after complete cleaning and disinfection.
- **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. Protect insulation from bird pecking by covering it with wood or metal sheathing. 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. Consider using a Thermo cube – a device plugged into an outlet into which the heater is plugged. If using a heat lamp, use the red infrared type. Use chains (not rope) to hang lamps at the desired height. Keep a thermometer or sensor inside the pen at bird level to monitor the temperature. Try to maintain a temperature at least 40 degrees F during cold spells. Be aware of any potential fire hazards when using heaters and heat lamps.
- **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. Avoid making changes in the feed ration. A hand full of “scratch feed” (a mix of cracked corn, oats and wheat) per 10 birds can be broadcast on the litter in the late afternoon. The scratch feed will keep the birds busy and will help turn over the litter.
- **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. If a nipple watering system is used, consider changing to copper nipples as the plastic nipples might break with freezing temperatures. Birds need to drink water in order to keep warm. Water is imperative for feed digestion and proper metabolism.
- **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. Change nest material on a regular basis and whenever an egg breaks in the nest.
- **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 or more frequently so as to prevent eggs from freezing.
- **Frostbite** – Birds can get frostbite on extremities (combs, wattles, and toes). Birds should be kept from walking on snow and ice. To help prevent frostbite in small flocks, apply petroleum jelly to

wattles and combs.

- **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. For general monitoring, consider obtaining and using a wireless video camera to observe your birds remotely for your convenience.
- **Weigh Birds** – Randomly select a few birds to weigh. Record the weights and check weekly to make sure birds are not losing weight. Compare general bird weights to egg production. If birds are gaining weight it means they are gaining fat tissue and probably not producing. 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. Dust bathing helps deter external parasites and can provide comfort to hens. If space allows, a kiddie pool might make a good dust bath container for hens.
- **Winter Biosecurity** – Designate and use specific chore clothing and footwear when feeding, caring and handling poultry. Liquid disinfectant footbaths can be kept from freezing by using a bit of RV & marine antifreeze in the disinfectant solution. Keep visitors out of your poultry house/pen.
- **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. Adam Vashon, a certified wildlife biologist in Maine, addresses winter loss to predators as follows: "In general, all wild animals that are not hibernating require additional calories to maintain body condition and core temperature. Therefore, predators must either survive on fat reserves or eat more. Some prey species could be abundant during winter months, but that depends on recruitment and survival of that species in that year. A predator would always be willing to take easy prey. This strategy allows them to conserve their energy and maintain their reserves. If preventative measures aren't taken, it could be your hen house that provides a predator with their next easy meal. The spring/early summer is likely the season when predator pressures are greatest on a hen house, because that is when predators are feeding themselves as well as their growing offspring."

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. Check with the USDA APHIS Wildlife Services Office in your state for recommended methods.

Thanks to reviewers Dr. Michael Darre, University of Connecticut and Dr. Jacqueline Jacob, University of Kentucky.

Information in this publication is provided purely for educational purposes. No responsibility is assumed for any problems associated with the use of products or services mentioned. No endorsement of products or companies is intended, nor is criticism of unnamed products or companies implied.

© 2014

Call 800.287.0274 or TDD 800.287.8957 (in Maine), or 207.581.3188, for information on publications and program offerings from University of Maine Cooperative Extension, or visit extension.umaine.edu.

The University of Maine does not discriminate on the grounds of race, color, religion, sex, sexual orientation, including transgender status and gender expression, national origin, citizenship status, age, disability, genetic information or veteran status in employment, education, and all other programs and activities. The following person has been designated to handle inquiries regarding non-discrimination policies: Director, Office of Equal Opportunity, 101 North Stevens Hall, 207.581.1226.

☺