Flint Hills District

Agriculture & Community Development

JUNE 2021

Housing Tips For Small Poultry Flocks

By R. Scott Beyer, Poultry Specialist.- Some designs are simple, relatively inexpensive, and easy to build. Others look good but are not all that functional. The worst designs fail to consider the most important criteria– the health and safety of the birds. In evaluating plans, here's what you need to consider to keep your flock safe, healthy, and productive.

Keep Predators Out– First, how well does the structure keep predators out? This is even more important than keeping birds in. Neighborhood dogs have probably killed more chickens in suburban areas than any other predator. Coyotes, skunks, foxes, raccoons, and hawks may try to steal an easy meal eventually. Lightweight cotton or plastic netting may hold birds, but it won't keep predators from chewing through the fence. You may need to install wire overhead or bury it along the perimeter if predators are a serious threat. Some bird owners wouldn't dream of keeping chickens without an electric fence.

Sooner or later, every housing system fails. Escapees are vulnerable to predators until birds are caught and returned to the pen. Avoid this problem by installing a safety trap outside the pen. The enclosure, which operate like a minnow trap, should be placed at the base of the fence so the bird wanders in trying to find its way back into the pen.

Features to Reduce Hazards– The poultry house should be easy to clean, or chores may not get done as often as they should. In a well-designed house, manure collects in an area where it cannot be disturbed. It can be removed on tray or scraped out from a panel underneath and easily placed in a compost bin. Select a plan that features an egg box that opens from the outside. Not having to enter the pen each time reduces the risk of contamination. Also look for an egg collection box that can be moved from one side of the pen to the other, where it is not directly exposed to the sun. When you move the coop, move the egg box to the shady side. Another nice feature is a feeder or waterer you can fill from outside the pen.

Protection from Weather Extremes– Keeping heat out of the coop is more important than keeping heat inside. In Kansas, more birds have been killed by extreme summer heat then extreme winter cold. A basic rule in cold weather is to give birds protection from the wind. Combs and wattles freeze easily in high winds but survive at temperatures well below freezing when air is calm. Locate the exterior door so it does not face the prevailing winter wind. Place an air deflector between windows and doors to protect the roost from high winds. Give birds a place to stay dry. When birds are unable to escape wet and windy conditions, they are less likely to survive winter.

Summer heat is an issue for birds in Kansas, especially heavy birds. Toward the end of the growth cycle, a Cornish-Rock Cross meat chicken may experience stress at 80 degrees F. Most heat enters through the roof and is where many designs are weak. With exposure to the sun, heat can build up rapidly underneath the roofing material. The worst coop designs feature a low roof covered only with metal sheeting. The coop should also include a layer of rigid foam between the trusses and the roof. Adding aluminum to the exterior deflects heat to keep the coop cooler all summer long. Beware of poultry house designs with a low roof that traps heat near the birds. Look for one with passive vents in the peak to allow heated air to rise and exit the coop. Avoid "chicken tractors." These movable coops are typically not good for modern broilers. They are too low to the ground and retain excessive heat that can harm birds.

Benefits of Portability– You can move your small poultry flock easily from place to place by installing skids or wheels on your coop placing the house on a small trailer so it is easier to move. Chickens are destructive to their range area. Even a few birds can dig holes and scratch grass out quickly. Consider an outdoor run that can be moved with the house. Moving the pen keeps parasites from building up in the soil and exposing birds to harm. A moveable coop can be moved to a shady area during the summer or protected from harsh winter conditions. Flock owners also may use portable coops and pens to help control weeds in the garden. Birds turn the soil and eat weed seeds. Another type of system is one in which the coop is permanent but birds are rotated from one run to another. Some poultry growers alternate pens every year, moving birds from one end of the coop to the other. They plant a garden on the side that is vacant, where there are fewer weeds, bugs, and free fertilizer.

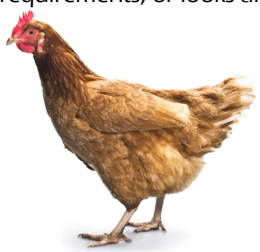
Don't Overbuild– Many small-flock housing designs are complicated. While there are many formal designs and precise drawings available, it may be just as easy to build a small coop by trial and error. It should be an unwritten rule to use salvaged materials left over from larger building projects. Put old doors, windows pulled from a house, vents, and so forth to good use for poultry housing. Make sure salvaged items are free of lead paint and asbestos. And remember, you are housing little birds, not the meanest bull in the country. You will probably need fewer 6'x6' posts than you do 2'x4' post to construct small-flock housing.

Simplify Chores with Automation– A small solar panel will produce enough energy for good lighting. Solar holiday lights may also work in a coop. Set lights on a timer to make sure birds receive the exact amount of artificial and natural light needed to sustain egg production– about 16 hours per day in Kansas. Choose a timer than monitors sunlight, turns lights on as the sun goes down, and then turns them off again at the prescribed time. To keep predators out, add a light sensor to open and close the door automatically There is even a 12-volt, solar-powered version. You can mount a solar-powered electric fence on the coop for portability. One of the most useful automated devices is a nipple-type drinker that drips when birds touch it. There are no tubs to fill or bowls to clean because there is no open water pan to get dirty. Pressure dispenses water without the need for electricity. The drawback to nipple drinkers is that they freeze easily. Switch to a heated base during the winter to keep water from freezing

Be Realistic About Space Needs– Don't get hung up on the space requirements. Chickens are gregarious and like being in a group or flock. If you build a big building for just a trio of hens, you are likely to find them standing side by side whether they are eating, roosting, or scratching in the dirt. Regulations that call for a minimum floor space for each bird may not take into account breed, age, time of year, temperature, nest boxes, roosting space, and other features of your hen house. If you raise broilers, you will see they have very little interest in roaming outdoors more than a few minutes. In fact, there is little peer-reviewed research on coop or yard space for small flocks. Knowing how much space your birds need is part of learning good management skills, bird behavior, and other things that are hard to pinpoint.

The amount of yard space required is also frequently misunderstood. You could give your flock of 10 hens a pen that goes a mile in each direction, but you would still look out and see a big bare area around the coop. Birds want to be near food, water, and shelter. Yard space is dictated by season, ground cover, shade, pen rotation, type of hen feed, soil type, rainfall, and other factors. Try to maintain a balance of open area and ground cover to give birds a chance to forage.

Focus on Bird Safety– When choosing a coop plan for small poultry flocks, the most important consideration is the safety and welfare of the flock. It is easy to get caught up in ease of construction, building costs, regulation requirements, or looks and forget that what the birds need is the most important. There are no "official" requirements for coop design, so purchase or build something that suits you and your birds. Most of all, have fun.



"Farming looks easy when your plow is a pencil, and you're a thousand miles from the corn field."

-Dwight D. Eisenhower

One Month Closer to Fair...and Summer Heat

Welcome to the month of June! Summer was and always has been my favorite time of year. Why? Well, summer is not just when I get to go to the lake and camp with my family. Summer is also fair season! During my time as a 4-Her in Russell county, I would always spend most of my summer taking care of my show cattle and preparing for the coming fair. Washing cattle was always the biggest chore in my mind. Could it be because my heifers seemed to always be the ones that disliked "bath time"? This could be a possibility. However, it was important to bathe them not just to keep them clean, but to keep them cool. During the summer, heat stress and bloat were key factors that I had to keep an eye out for. Summer heat stress caused cattle to reduce feed intake, thus lowering rate of gain, and bloat can lead to reduced feed intake and even death in some serious cases.

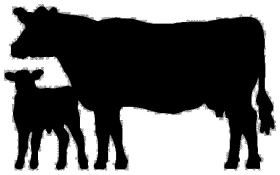
Frothy bloat is a condition that occurs when a ruminant consumes feeds that produce thick, foamy gas that the animal cannot pass by belching. This froth then builds in the rumen and causes noticeable discomfort and can become deadly if the pressure is not alleviated. According to a grazing management article, to reduce the risk of bloat, bloat-prevention agents such as ionophores and poloxalene can be added to feed and water to minimize the risk of bloat.

According to K-State Research and Extension beef veterinarian A.J. Tarpoff, heat stress often causes cattle to eat less, which also negatively affects their performance. According to Tarpoff, these are the best management practices for helping to reduce heat stress in cows:

- Handling. Receive, ship or move cattle only during the coolest parts of the day, preferably before 10 a.m.
- Feeding. Modify feeding times. Feed 70 percent of the animals' ration as late in the evening as possible, which puts the peak heat of digestion overnight when temperatures are likely cooler. Decrease feeding during the day.
- Managing heat. Split cattle between pens or reduce stocking density. Maximize airflow by removing obstructions around facilities, including weeds. If feasible, install shade structures, which can reduce solar radiation and reduce the temperature on the pen's floor. Install sprinklers to wet cattle down at night or early morning so as not to increase humidity.

Finally, water is also a key component when preventing heat stress. As a rule of thumb, Tarpoff recommends that cattle consume about five times the amount of water as the dry matter they are consuming. Tarpoff also explains that producers need to be prepared to increase the water tank capacity within a pen to meet the needs of cool, clean and readily-available water as water is ctitical during a heat stress event.

For more information on how to prevent bloat or heat stress, please contact me at the office or by email.



Best,
Shannon
(Agriculture/4-H Agent)

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June Ag Fact

Corn tortillas can differ in color based on the type of corn used. Some are white and others are yellow.

Sweet Corn Primer

It used to be simple to decide which sweet corn to plant. You simply chose a cultivar and planted when the soil temperature reached 55 degrees. Now it has become more complicated due to genetic advances in sweet corn. Breeders have found certain genes that improve "standard" sweet corn. Below is an overview of the types commonly available to homeowners.

Standard (su): This is our "old" sweet corn and contain a "sugary gene" (su). Standard sweet corn should be isolated from field corn, popcorn, supersweets and ornamental corn. To isolate one type of corn from another, do not plant one type within 200 to 250 feet or be sure to have a difference of 12 to 14 days in time to maturity. Plant when the soil temperature reaches at least 55 degrees. Recommended varieties include Honey and Cream, Silver Queen, Sterling Silver, Jubilee, or Merit.

Supersweet (sh2): Though supersweets have up to three times the sweetness of standard sweet corns and hold their sweetness longer after harvest due to the sh2 gene, they do have some drawbacks such as tougher kernels and a lack of some of that good "corn" flavor. They also need to be isolated from other sweet corn types and are very sensitive to cooler soils. Wait until the soil temperature reaches 65 degrees before planting. Try Candy Store, Florida Staysweet, Sugar Loaf, Sweet Time, or Sweetie.

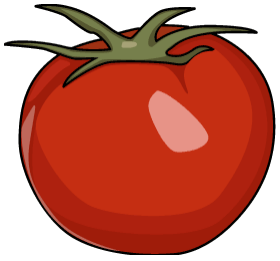
Sugar Enhanced (se): These are probably the most popular type of sweet corn grown due to their tender kernels, good flavor and less sensitivity to cool soils (60 degree soil temperature for planting). They hold their post-harvest sweetness longer than standard types but will not hold sweetness as long as the supersweets. The sweetness from the sugar-enhanced types is due to the "se gene". If both parents were se types, the variety is known as an se+ or se se. If only one parent was an se type and the other an su type, then the variety will be listed as se. They do not need to be isolated other than from the supersweets. Suggested varieties include Bodacious, Ambrosia, Sweet Temptation, Delectable and Miracle.

Triplesweet (synergistic): The newest types of sweet corns blend the su, se and supersweet types with the goal of combining the best characteristics of each. Try Serendipity, Polka, Avalon or Frisky. (Ward Upham)

Red Plastic Mulch and Tomatoes

Plastic mulches have long been known to provide advantages for the vegetable grower including earlier fruiting, increased yields and weed control. More recently advantages have been noted for colored mulches over the more traditional black plastic mulch. With tomatoes, the color choice has been red. Though normally there is an increase in production of marketable fruit with red mulch over black mulch, the amount of the increase varies with the type of year we have. There may be no increase during years of near-perfect weather or up to a 20% increase with less favorable growing conditions. A good average expected increase is about 12%.

So, how do you apply plastic mulch? Commercial growers have a mulch-laying machine that applies the trickle (drip) irrigation line and the mulch in one operation. Home gardeners must do this by hand. The first step after soil preparation is to place a trickle line near the center of where the mulch will lay as the plastic will prevent rainwater or overhead irrigation from reaching the plants. Then construct trenches for the outer 6 inches of the plastic mulch. This allows the center of the bed to be undisturbed with the edges of the mulch draping down into the trench. Fill the trenches to cover the edges of the mulch. This will prevent wind from catching and blowing the mulch. If the soil has been tilled, a hoe is all that is needed to prepare the trenches. (Ward Upham)



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Upcoming Events

The following are area or Statewide Agriculture, and/or Community Development/4-H events.

For more information on these events please contact the Extension Office

June

1– 4-H District Horse Show Entry Deadline

1-4– 4-H Discovery Days (Virtual)

12– Symphony In The Flint Hills– Morris Co.

13– Morris County Project Day 2-5 PM

15– All Other Livestock State Nominations Due

15-18– Sunny Hills 4-H Camp– Rock Springs

18-19– Washunga Days– Council Grove

27-30– Campference– Rock Springs

29– 4-H Poultry Pullorum Testing– Council Grove

July

1– North Central 4-H District Horse Show– Salina

4– Happy 4th of July!

5– Offices Closed

9-10– Bob Hines Swine Classic– Manhattan

9-11– Tri-County Free Fair– Herington

17-26– Morris Co. Fair– Council Grove

25-29– Chase Co. Fair– Cottonwood Falls