



<i>In this edition...</i>			
Buying Egg Layers	Page 1	Risk Management in Improving Markets	Page 4
Downer Cattle	Page 3		

Buying Egg Layers

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Although egg prices have been trending down, some individuals have been tempted to buy some chicks/hens and begin producing eggs at home. According to the United States Department of Agriculture, backyard poultry production is a popular agriculture enterprise with egg-laying breeds the most popular type of chicken raised. Before purchasing any chicks/hens, individuals need to do their research. Questions related to housing, breed, health, biosecurity, and city codes are just a few issues that backyard poultry producers need to consider.

Although backyard poultry production is very popular in the United States, some urban areas may not be receptive to chickens in the backyard. Before purchasing any chicks, producers need to check with local authorities about restrictions and regulations regarding backyard poultry production. Once a producer understands all the city rules and regulations, they will need to choose a breed. Not all chickens are alike. Certain breeds are more suited for certain environments. Some are more heat tolerant, and some tolerate the cold better. Some breeds lay larger numbers of eggs than others, and certain breeds lay different colored eggs. Producers should consult with fellow poultry producers and check resources online for the best breed for their operation.

Housing is the costliest expenditure with backyard chickens. The housing needs to provide adequate space for each bird. Recommendations for indoor space is 4 square feet per bird. The housing should provide protections from weather events as well as predators. Indoor housing needs to be well ventilated to prevent issues with respiratory disease. Lastly, if living in an urban area, the housing needs “curb appeal” to keep the neighbors happy.

If producers expect plenty of eggs for the table, keeping chickens healthy will be important. In a review of the most common causes of death in backyard poultry in the United States, Dr. Cadmus and associates found cancer, bacteria, viruses, and parasites were all common causes of health issues in backyard poultry. Cancer is the most common cause of death in backyard poultry with 41% of all dead birds submitted for necropsy diagnosed with some form of cancer. Marek’s disease was the most common cause of the cancers. Producers should remember that diseases in poultry are much easier to prevent than treat.

One-way producers can avoid diseases in their flocks is to start with healthy chicks. To find healthy chicks, producers should purchase birds from a National Poultry Improvement Plan (NPIP) certified hatchery. The NPIP was initially started in the 1930s to eliminate *Salmonella pullorum* from chicks which was highly fatal. Today, NPIP hatcheries monitor and test for a variety of diseases. Purchasing chicks from a NPIP flock will not prevent every disease but it should provide confidence that the chicks are coming from a healthy flock.

In addition to purchasing chicks from a NPIP flock, chicks should be vaccinated for certain diseases early in life. As mentioned earlier, Marek’s disease is one of the leading causes of death in backyard chickens. The disease can be easily prevented by vaccinating the chicks on day 1 or in ovum prior to hatching. Most hatcheries will provide this service for a small fee. Consult with a poultry specialist and/or a veterinarian for other diseases that can be prevented with vaccinations.

TIMELY TOPICS

OSU EXTENSION - NORTHEAST DISTRICT
March 2023 – Volume 43 – Issue 3



EXTENSION

Although parasites in Dr. Cadmus review did not account for a high number of deaths, routine monitoring of parasites is a good habit. Coccidia, which was the most common parasite found to cause fatalities, damages the intestine which results in digestive problems. To combat this parasite, chicks should be placed on a coccidiostat which is usually administered in the water or feed. There are a few different coccidiostats available, so consult with a poultry specialist and/or veterinarian for the best option.

Of all disease prevention options available to backyard poultry producers, biosecurity is the best. Biosecurity is a series of management practices designed to prevent the introduction and spread of disease agents on a poultry operation. Backyard poultry producers can find information on biosecurity at <http://healthybirds.aphis.usda.gov>. Also, Oklahoma State University Cooperative Extension has an excellent fact sheet *Small Flock Biosecurity for Prevention of Avian Influenza ANSI-8301* which can be obtained at the local OSU County Extension office or at <https://extension.okstate.edu/fact-sheets/small-flock-biosecurity-for-prevention-of-avian-influenza.html>.

Lastly, backyard poultry producers may not be aware of the dangers that poultry can have on human health. Since birds usually do not show any clinical signs of being ill, they shed organisms in their feces and other bodily fluids without producers realizing they are endangered. Several of the pathogens that infect poultry can also infect humans. Every year the Center for Disease Control and Prevention (CDC) investigates *Salmonella* infections in humans associated with backyard poultry. In 2022 there were 1,230 cases of *Salmonella* infections in people in 49 states. Two hundred twenty-five people were hospitalized with the disease. Two deaths were reported. Twenty-one percent of the cases were in children under 5 years of age. In interviews, 59% of the sick people reported contact with chicks or ducklings. Oklahoma reported 17 cases of *Salmonella* infections. It should be kept in mind that the CDC believes that for every one *Salmonella* case reported many cases go unreported.

The best way people can protect themselves from developing infections associated with backyard poultry is to practice good hand hygiene. Producers should wash their hands before and after having contact with their birds. Children under 5 years of age need to be supervised when around poultry. This group needs to especially practice good hand hygiene.

Eating eggs from chickens in the backyard may or may not save money but raising backyard chickens can be very rewarding. Before purchasing any chicks, producers should become familiar with all aspects of backyard poultry production. A good source of information is Oklahoma State University Extension Backyard poultry course available at <https://learn.extension.okstate.edu/courses/backyard-chickens>. This interactive course provides information on poultry nutrition, health issues, biosecurity practices, egg sales, and more.

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Downer Cattle

Earl H. Ward, Area Livestock Specialist

Agriculture is tough! Working cattle can be very frustrating but I believe that part of that is one reason we love them so much. It's amazing how the animal that can push you to your breaking point can also be the same animal that breaks your heart.

My son's first heifer had her first calf last summer. He was a big bull calf that got hip locked and needed assistance. Once all was calm my son said, "man he is a trooper." Trooper was the first calf that my son had raised, and he was there since the first moment. He grew into a big, stout red steer and my son was excited to show him in the county born and raised show. However, the day after his first show Trooper got his head stuck in the fence trying to reach for some hay, to which there was plenty in the feeder above him. A few days later he got his head stuck again, but this time trying to nurse off of his mother to which he had been weaned from for about 3 months. This time he must have really done some damage to his neck because the next morning he was unable to get up. He could sit up; he would eat and drink but could not get to his feet. After a couple calls to the vet and a medicine run, I began looking for a way to lift him. Since he was a stout, muscular steer we could not get a cow hip lift to stay on, so we resorted to 3 inch tow straps and a tractor. For the next 6 days we lifted him several times a day. He could hold his weight on his front end but couldn't on his back legs. We tried everything! We even had a neighbor who was a massage therapist come over and work on him to try and get more circulation to his legs. He made very little progress and on the 7th day he was flat out on his side and was almost prolapsed from straining so hard to get up. This was an animal that my family was extremely close to, but I made the decision (and the correct one in my mind) to euthanize him. Tears were shed from everyone in our family. Not only for calf but also for my son. Agriculture is tough!

There are several reasons why an animal can go down and they are all lumped together as Bovine Secondary Recumbency (Downer Cow Syndrome). It could be broken bones, muscle damage, nerve damage, a metabolic issue (such as milk fever), or a disease. It is also common during the birthing process of a cow to sustain structural or nerve damage. The first step is trying to determine the cause of the problem. This typically requires a call to your veterinarian. Even if you know the cause, it is recommended to contact your vet for recommendations. Then apply any medicines if they are warranted. Usually, it will start with an anti-inflammatory and antibiotic.

Cattle that are unable to sit up or refuse to eat or drink do not have a positive prognosis. If they make no progress in 24 hours, it is recommended to euthanize the animal. Beef Quality Assurance (BQA) has detailed information on handling non-ambulatory cattle. Feed and water are the essentials of course. Drenching downer animals may be warranted.

If an animal continues to eat and drink, then it is extremely hard to give up on them. However, they will need to be repositioned from side to side to keep the circulation to the muscles on the underside. Lifting the animal is recommended to increase circulation and to help get the animal to their feet. Hip lifts are an important tool if used properly but many people don't like them. Properly placed wide straps are a great option but can be a chore to get them under an animal that can't move. Remember when lifting a bovine that the forelimbs support about 60% of the animal's weight, so adequate support is necessary. Lift them two to three times a day to give the animal the greatest opportunity for recovery.

Eventually it comes down to the animal's welfare. There will come a time when you must decide if it is more humane for the animal to euthanize it. Remember that downer cattle cannot be accepted in processing facilities and if an animal

has been down for days there is more than likely a lot of damage and bruising to the muscles that will cause the meat to be inedible. Also be sure to follow all medicine withdrawal periods.

The Merck Veterinary Manual (<https://www.merckvetmanual.com/>) has great information on Bovine Secondary Recumbency and it is a recommended read because Downer Cow Syndrome is a complex issue with multiple treatments depending on the diagnosis.

So that animal that you cursed at for kicking you, tearing up facilities, or just doing something stupid will be the same animal that breaks your heart because ultimately you care about animals. Agriculture is tough!

Risk Management in Improving Markets

Scott Clawson, Area Ag Economics Specialist

Traveling around and talking with cattle producers in northeast Oklahoma there is a sense of optimism in the air and deservedly so. Several key problems that plagued 2022 seem to be on the retreat. In early December, per the University of Nebraska-Lincoln Drought Monitor, virtually all of Oklahoma was in some level of drought and as of late last week almost one third of the state has been removed from those conditions. Additionally, fertilizer prices continue to move in favor of cattle producers as do cattle prices. The supply side of the cattle business continues to point to better prices moving into the near future. These better prices will improve the asset value of the cow herds in the field but transitioning that from value in the field, to sell date, to cash flow is still a few steps away.

For commercial cow-calf producers in eastern Oklahoma that sell most of their stock in the fall, we might estimate that 80-90% of cash flow will come over a short timeframe. This would consist of selling our spring calf crop and culling cows before winter. This increases the risk component as we are concentrating a large portion of our sales and thus cash flow in one short market window. This is magnified further if we consider where we create value in our operation. If calf sales at weaning is our primary income source, then the value from our forage, hay production, and heifer development that is created through the year and invested in the cow and calf is realized at that point too.

There is a lot riding on that fall calf price. Several risk management products exist. There is only one that can be adapted to cow-calf production specific to the sex of the calf, breed type, size of the operation, marketing period, and risk tolerance. Livestock Risk Protection (LRP) offered by the USDA is that option. LRP is designed to create a price floor while leaving the opportunity to enjoy even higher prices open. The hope when purchasing an LRP policy is that the market stays higher than your floor and it is never leaned on for income. Yet, if the market were to move against you it would step in and help. As of the close of business on Friday, March 13, 2023, you could secure a price floor of \$2.21/pound for just under \$8/head on five weight steers. In other words, is it worth giving up four pounds of weaning weight to have some price security? If your outlook is more bullish and you expect five weight calves to fetch \$3/pound, then it is less than three pounds of weaning weight for price security. The price floor can be moved even higher if that is your preference, it will just cost more.

Prices have moved in favor of the producer and supply issues in the cattle sector support that. There are some lingering concerns in the general economy, however. The height of price increases and the length that they will exist are unknown at this point. LRP allows producers to secure profits when the math is right and can be a vital part of a risk management strategy. For more information on LRP, contact your local OSU Extension Ag Educator.

TIMELY TOPICS

OSU EXTENSION - NORTHEAST DISTRICT
March 2023 – Volume 43 – Issue 3



EXTENSION

Value of Gain Calculation						
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OK Weighted Average Report 3/10/23						
Weight	\$/lb	Value/hd	Added		\$/lb	
			lb.	Added \$	Added	
327	\$ 2.6923	\$ 880.38				
379	\$ 2.6231	\$ 994.15	52	\$ 113.77	\$ 2.19	
423	\$ 2.5882	\$ 1,094.81	44	\$ 100.65	\$ 2.29	
471	\$ 2.5096	\$ 1,182.02	48	\$ 87.21	\$ 1.82	
522	\$ 2.3961	\$ 1,250.76	51	\$ 68.74	\$ 1.35	
573	\$ 2.2442	\$ 1,285.93	51	\$ 35.16	\$ 0.69	
623	\$ 2.1607	\$ 1,346.12	50	\$ 60.19	\$ 1.20	
672	\$ 2.0416	\$ 1,371.96	49	\$ 25.84	\$ 0.53	
721	\$ 1.9447	\$ 1,402.13	49	\$ 30.17	\$ 0.62	
777	\$ 1.8904	\$ 1,468.84	56	\$ 66.71	\$ 1.19	
820	\$ 1.8413	\$ 1,509.87	43	\$ 41.03	\$ 0.95	
914	\$ 1.7688	\$ 1,616.68	94	\$ 106.82	\$ 1.14	
963	\$ 1.7297	\$ 1,665.70	49	\$ 49.02	\$ 1.00	
Long Stocker Run		Short Stocker Run		Heavy Stocker Run		
<i>Starting</i>		<i>Starting</i>		<i>Starting</i>		
327	\$ 880.38	327	\$ 880.38	623	\$ 1,346.12	
<i>Ending</i>		<i>Ending</i>		<i>Ending</i>		
963	\$ 1,665.70	522	\$ 1,250.76	963	\$ 1,665.70	
<i>Total Gain</i>	<i>Δ Value</i>	<i>Total Gain</i>	<i>Δ Value</i>	<i>Total Gain</i>	<i>Δ Value</i>	
636	\$ 785.32	195	\$ 370.38	340	\$ 319.59	
VOG		VOG		VOG		
\$ 1.23		\$ 1.90		\$ 0.94		



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