Winter Care of Small & Backyard Flocks

Maintaining a small poultry flock is growing in popularity. Backyard flocks can provide eggs, meat, and an opportunity for all family members to participate and learn animal care. Concerns over animal care occur during the two extremes of weather, the heat of summer and the cold of winter. Most poultry can tolerate very low temperatures as long as they are kept dry and provided a wind block. Down feathers cover adult birds as well as chicks, which are used for insulation. The feathers are fluffed up by the adult bird, trapping air underneath to increase the insulation provided by the feathers. While most poultry can tolerate low temperatures, below are some ways to help protect the backyard flock during the winter.

Housing

Insulation is usually not required in Missouri and can even be detrimental. Insulation can decrease ventilation, leading to a buildup of condensation and increased moisture inside the house. Ventilation is very important for the removal of carbon dioxide and the reduction of moisture levels. Insulation also encourages rodents to take refuge. However, if there is extreme low temperatures (-20°F) forecasted for an extended amount of time; temporary insulation should be considered.

Heat lamps are not recommended inside the house as they can be a fire hazard and cause temperature changes from one area of the house to another which can increase morbidity. Heat lamps can be used if the temperature is below zero for a long period of time. If a heat lamp is used, red heat bulbs are suggested instead of white heat bulbs to decrease potential cannibalism.

Bedding inside the house should be kept as dry as possible. Wet bedding increases the ammonia levels inside the house. Wet and caked material should be removed and dry bedding added as needed. Any absorbent material that decreases moisture and serves as an insulating material during cold weather can be used as long as it is clean, mold free and dry but not dusty. Pine shavings, rice hulls, peanut shells and ground corn cobs are all good products to consider. If housing laying hens, pine shavings should be avoided due to an off flavor in the eggs reported due to the consumption of pine tar. Note that hardwood shavings sometimes produce a mold that can cause a serious infection when inhaled by the birds.

Perches inside the house can also help the birds stay warm by allowing birds to get off of the floor. Perches should preferably be made of wood.
Nutrition

Poultry have an increased energy demand during the cold weather due to the energy expended for body temperature maintenance. It is best to provide a high quality, commercially prepared feed; which is available for specific ages and types of birds. Processing feed into pellets or a crumble form increases the cost over mash form; however, it also increases palatability and usually decreases feed waste. Supplementing the diet with scratch grains, such as cracked corn in the afternoons can be beneficial. Table scraps, including stale bread, leafy vegetables and peelings can also provide variety while decreasing feed cost. Producers should limit treats to what can be eaten within 10-20 minutes. Treats should be given in the afternoons to encourage birds to eat the balanced diet first. Egg shells are a good source of calcium, but should be crushed to prevent egg eating habits, if they are going to be fed back. Water is essential to bird health, and thus fresh, clean water should be available continuously. Waterers and feeders should be moved to new locations regularly to prevent caking and wet areas inside and outside the house. Commercial heated waterers or heated platforms are available. Aquarium heaters placed in buckets with nipple drinkers also work and can decrease water waste as well.

Laying during the winter

Poultry come into lay with increased day length and go out of lay with decreased day length. Producers must decide if they want their flock to remain in lay during the winter, or the birds to rest. In order to keep birds in lay through the winter, supplemental light is needed at 14 hours of light/day. Do not go over 16 hours of light/day as this can induce cannibalism. The extended day length can be added in the morning or evening. Egg collection should be done at least once a day.

Backyard flocks can be rewarding for all members of the family. With a little extra care and attention poultry can thrive during the winter. More information can be found at https://articles.extension.org/poultry or by contacting an University of Missouri Extension livestock specialist.

Heather Conrow, Livestock Specialist, University of Missouri Extension, Fulton, MO. smithheather@missouri.edu
The USDA Natural Resources Conservation Service (NRCS) has extended, until January 15, 2016, the deadline to apply for financial assistance to address critical natural resource concerns in seven Missouri watershed areas. The watershed areas are included in the Mississippi River Basin Healthy Watersheds Initiative (MRBI).

The seven Missouri MRBI watersheds are: James Bayou – St. John’s Diversion Ditch and Mud Ditch (Mississippi and New Madrid Counties); Upper Buffalo Creek Ditch (Dunklin County); Bear Creek – West Yellow Creek (Linn County); Peno Creek and Spencer Creek (Ralls and Pike counties); Sugar Creek and Mission Creek – Missouri River (Buchanan and Platte counties); North River – (Marion, Ralls, Monroe and Shelby counties); Profits Creek – (Osage, Cole, Maries and Miller counties). This is the first year that landowners in North River Watershed and Profits Creek Watershed are available for assistance through MRBI.

Conservation practices offered through MRBI focus on the avoidance of access nutrients and sediment movement occurring on land in the priority watershed areas. The core activities, such as cover crops, increased crop rotations, decreased tillage, precision nutrient application and exclusion fencing, will strengthen soil health, reduce erosion and lessen nutrient runoff.

To learn more about MRBI, landowners can contact their local NRCS office.

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Heifer Development and Show-Me-Select Heifer Program Informational Meeting

The East Central Cattleman’s Association and St. Francois County Extension will be hosting an informational meeting about heifer development and the Show-Me-Select heifer program on January 25, 2016 at the United Methodist Church in Farmington, MO starting at 6:30 p.m. Dr. David Patterson, University of Missouri State Beef Extension specialist and organizer of the Show-Me-Select program will describe what producers can do to participate in Show-Me-Select.

A new sale location has been added for 2016 in Farmington, MO with a spring sale date of April 15 and a fall sale date to be determined. The Farmington sale will join existing sales at Fruitland, Joplin and Palmyra for the spring and Carthage, Fruitland, Kingsville, Kirksville and Palmyra in the fall.

The fall Show-Me-Select sales are completed and prices seem to be holding steady for high-quality bred heifers in light of the declining cattle market. Below is the list of sales, number of head sold and average price. The totals for the five sales were 1156 head selling for a $2396 per head average.

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of Head Sold</th>
<th>Average Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carthage</td>
<td>293</td>
<td>$2477</td>
</tr>
<tr>
<td>Kirksville</td>
<td>195</td>
<td>$2386</td>
</tr>
<tr>
<td>Kingsville</td>
<td>216</td>
<td>$2311</td>
</tr>
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<td>Fruitland</td>
<td>133</td>
<td>$2374</td>
</tr>
<tr>
<td>Palmyra</td>
<td>319</td>
<td>$2394</td>
</tr>
</tbody>
</table>

If you are interested in attending the meeting please contact the St. Francois County Extension center at (573) 756-4539 or grahamkk@missouri.edu to RSVP.

Missouri Farmers Eligible for Funding to Address Critical Natural Resource Concerns

The USDA Natural Resources Conservation Service (NRCS) has extended, until January 15, 2016, the deadline to apply for financial assistance to address critical natural resource concerns in seven Missouri watershed areas. The watershed areas are included in the Mississippi River Basin Healthy Watersheds Initiative (MRBI).

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To learn more about MRBI, landowners can contact their local NRCS office.
Ag Expo 2016 - Celebrating 30 Years

Friday, January 15 and Saturday, January 16, 2016

Friday 1 p.m. to 8 p.m.  Saturday 9 a.m. to 3 p.m.

Black River Coliseum in Poplar Bluff, Missouri

- Over 118 Agriculture Exhibits
- 4-H/FFA public Speaking Contest (Friday 4:00pm)
- Milking Contest (Friday 5:30pm)
- Duck Calling Contest (Friday 6:00pm)
- Toy Tractor Pedal Pull Contest (4-5 yr Friday 6:00pm; 6-7 yr Friday 7:00pm; 8-9 yr Saturday 10:30am)
- FFA Tractor Driving Contest (Saturday 9:00am)
- Old Time Auction (Saturday 12 noon)
- Baking Contest
- Ag Photography Contest
- Petting Farm
- Entertainment

Education
- Private Applicator Training (Friday 2:00 –5:00pm)
- Grain Bin Safety (Friday 5:00 –6:00pm)
- Soil Fertility for Forage (Friday 6:15 –7:15pm)
- Kids Garden Adventure (Saturday 9:00am)
- Youth Farm Safety Education (Saturday 12:00 –2:00pm)

Beauty Pageant  Saturday, January 16

Pre register $30 at 573-686-8064

9:30am  Baby Girl (birth to 12 month)
10:00am  Toddler Girl (1st birthday to 23 month)
10:30am  Petite Miss (2 to 4)
11:00am  Tiny Miss (5 to 7)
11:30am  Little Miss Ag Expo (8 to 12)
12 noon  Junior Miss Ag Expo (13 to 15)
12:30  Miss Ag Expo (16 to 20)

If you are interested in a booth at Ag Expo please call 573-686-8064 for more information.
The Midwest Winter Production Conference will be Thursday and Friday, January 21 and 22, 2016, at the Continental Banquet Center, 2728 North Rangeline, Joplin. Aimed at professional and aspiring professional growers interested in three- or four-season production. Winter production, and extended season production in the spring and fall, have become increasingly important sources of revenue for Missouri farmers. Off-season production is also essential for year-round markets and their customers who want fresh local produce throughout the year.

The conference will include multiple tracks covering: High tunnel siting, choices of equipment, costs and returns; Economics and marketing for winter grow leafy greens Marketing strategies for winter sales; Winter storage crop production and economics; Integrated pest control in tunnels: Starting your own plants for winter production - seed selection, crop varieties, seeding time table, cost, quality control; Adding value and expanding profit through storage crops and dried products; Lacto fermentation of sauerkraut and dill pickles; Garlic – production, storage and marketing; and Raspberry production in high tunnels.

The conference also includes a Farmer Symposium with top winter producers from winter markets discussing their favorite winter production tools, crops and techniques. The conference will finish with a tour of a local farm operating heated and unheated high tunnels, as well as a hydroponic lettuce greenhouse.

This conference features national and regional presenters including:

Dru and Adam Montri operate Ten Hens Farm, a 17,900 square feet of high tunnels for winter production, as well as farming in the field year-round on their farm in Bath, Michigan. They sell their products through a variety of outlets, including farmers markets, restaurants, grocery stores and a medium-sized distributor. Adam is also an outreach specialist in the Michigan State University Department where he works with farmers throughout the state on high tunnel funding, construction, year-round production, marketing, and economics. Dru is director of the Michigan Farmers Market Association, on the board of the Farmers Market Coalition and the national farmers market association, giving her contacts with year-round markets throughout the country.

Patrice Gros operates Foundation Farm, a 5-acre USDA certified organic farm which includes three high tunnels in full winter production in Northwest Arkansas. Go to https://www.youtube.com/watch?v=_bCfPh1drUE for a tour of his high tunnel operation taped this month.

Dan Kuebler operates The Salad Garden and sells year-round at local farmers markets and restaurants in Columbia. He has a special interest in lacto fermentation of sauerkraut and dill pickles, including it in his product mix and holding workshops on the processes.

Tammy and Greg Sellmeyer operate two greenhouses & four high tunnels. They sell at the Columbia and the Fulton Farmers Markets, and have a CSA. Their winter sales include a wide variety of storage crops and dried products from produce raised on their farm.

The Midwest Winter Production Conference is sponsored by the Webb City Farmers Market, Lincoln University Cooperative Extension and University of Missouri Extension. It is underwritten by a specialty crops grant from the Missouri Department of Agriculture. Complete conference information is available at webbcityfarmersmarket.com or by calling 417 483-8139. Pre-registration is required and is $50. Additional registrations from the same farm or family are $40 each. Registration at the $50 level includes the publications New Seed Starters Handbook by Nancy Bubel and the 2016 Midwest Vegetable Production Guide for Commercial Growers.

(The high tunnel at one of the Webb City Farmers Market winter producers - Center Creek Farm. A high tunnel is a structure covered in clear plastic in which plants are grown directly in the ground. Heated tunnels generally grow warm-weather-loving crops such as tomatoes and peppers. Unheated tunnels are used for greens and other cool-weather-loving crops such as broccoli and cauliflower. They are also used for season extension, getting an early or late crop of many varieties of produce.)
Missouri Aquaculture Meeting

The Missouri Aquaculture Association Winter Meeting will be Friday and Saturday, January 8-9, 2016 in Jefferson City.

Friday, January 8, 2016

Friday’s activities will be at Hy-Vee which is at 3721 W Truman Boulevard. We have never met here but the store is easy to find since it is large and is just off the highway next to the mall. The meeting room we will be using is upstairs, above the dining area. To find it, just go to the deli in the front corner of the store and take the stairs that are next to the dining area. If stairs are a problem, there is an elevator on the other side of the deli towards the back of the store, next to the bathrooms. On the second floor, the meeting room is at the opposite end of the hall from the elevator. There will be three events Friday afternoon:

2:30-3:00 MAC meeting  The four members of the Missouri Aquaculture Council will meet to conduct the business of the aquaculture feed checkoff.

3:00-4:30 MoAA Board meeting  The Missouri Aquaculture Association officers & board meet to discuss industry issues.

5:00- Dinner  Russ Heindselman, a long-time fish producer from LaGrange will share some of the innovations he has developed on his farm. Come prepared to share the ideas you have implemented on your farm during a friendly competition for some great prizes.

Saturday, January 9, 2016

The meeting on Saturday will be at Lincoln University’s George Washington Carver Farm which is a couple miles south of the Lincoln University campus at 3804 Bald Hill Road. If you have trouble finding it the day of the meeting, the phone number at the Carver Farm office is (573) 681-5540. Several sets of directions are available at http://www.lincolnu.edu/web/cooperativeresearch/carver-farm-directions.

Registrations will be accepted the morning of the conference; however, knowing how many people to expect helps tremendously with planning. Receiving registrations in advance and having a great sponsor are the key reasons we can keep the registration cost so low. As a result, a discount is offered for registrations received prior to Monday, January 4, 2016.

Non-Members Before January 4 = $25.00 or after January 4 = $35.00

Members Before January 4 = $20.00 or after January 4 = $30.00

Students Before January 4 = $5.00 or after January 4 = $10.00

If you have questions, please call Vanessa at (417) 683-2301. Mail registration to Crystal Lake Fisheries, Route 2, Box 528, Ava, MO 65608
Missouri Soybean District 7 Meeting

**Tuesday, January 12, 2016**
Miner Convention Center, Miner Missouri

Registration: 8:00 a.m.  Program: 8:30 a.m.  CEU’s will be applied for.

**Agenda:**

8:00 a.m. – Registration, Coffee, Doughnuts
8:30 a.m. - Soybean Variety Update - Grover Shannon, University of Missouri
9:00 a.m. - Weed Control Strategies – Jim Heiser, University of Missouri
9:30 a.m. – Cover Crops – Charlie Ellis, MU Extension
10:00 a.m. – Break
10:30 a.m. – Crop Diseases – Anthony Ohmes, University of Missouri Extension
11:00 a.m. – Soybean Update - William Wiebold, University of Missouri – Columbia
11:30 a.m. - Grain Marketing Outlook and Strategies - David Reinbott, MU Extension
12:00 p.m. – Missouri Soybean Program Update – Christine Tew, MO Soybean Merchandising Council
12:30 p.m. – Lunch

**PLUS**—Industry Representatives on hand to answer questions about their products.

After the meeting an election for a District 7 Missouri Soybean Association Director

Contact Anthony Ohmes (573-243-3581) or David Reinbott (573-545-3516) to register and for more information or needs.
Future Meetings & Events -

Great Plains Growers Conference and Trade Show - January 7, 8 & 9, 2016, Missouri Western State University, St. Joseph, MO. For information on vegetable, fruit, cut flower and includes an educational program consisting of 5-concurrent sessions featuring conventional and organic production and marketing of horticultural crops.

Missouri Regional Soybean Meeting - January 12, 2016, Miner Convention Center in Miner, MO with registration at 8 am. Contact Anthony Ohmes 573-243-3581 or David Reinbott 573-545-3516 to register.

Informational meeting about heifer development and the Show-Me-Select heifer program - January 25, 2016, the United Methodist Church in Farmington, MO starting at 6:30 p.m. Contact the St. Francois County Extension center at (573) 756-4539 for more information.

MO Rice Production Conference - Wednesday, February 17, 2016. Malden Community Center, Business HWY 25 in Malden, MO from 8 am to noon. Lunch is provided.

Your Farm, Your Business, Your Future – February 4, 11, 18, & 25 2016 Piedmont, MO. 6 pm to 9pm. The overall goal of this workshop is to help you, as the owner of a small business or a family member of one, to begin thinking about creating succession, estate, and retirement plans. Contact Kevin Anderson 573-323-4418.

Annie’s Project II – March 3, 10, 17, & 24 Van Buren, MO. 6 pm to 9 pm. If you are a farm woman with a passion for business involvement, you need to attend the four-week course designed just for you! This workshop will cover introduction to market terminology, basic hedging problems, futures contracts, cash contracts, options, livestock marketing, developing a marketing plan, and crop insurance. Contact Kevin Anderson at 573-323-4418.

Contributions to this publication are made by University of Missouri agriculture food and natural resource specialists. If you would like to be added to the list serve for this publication please send an email with request to: denklers@missouri.edu

Commodities and markets - http://extension.missouri.edu/scott/crop-budgets.aspx
Farm Bill - http://extension.missouri.edu/scott/Farm-bill.aspx