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## Stress in Agriculture

As I write this, there's snow on the ground and 25 mile per hour winds. If your agricultural enterprise requires you to be out in these conditions, it's likely added some stress to your life. By the time you read this, the forecast is for more sunshine and temperatures approaching freezing – but that doesn't mean your stress magically goes away.

Some of the joy of being involved in agriculture is the autonomy to make our own decisions and take risks to attain a favorable outcome. With that, however, can come a great deal of stress. On top of that, there are multiple facets of production agriculture over which we have no control. We can do *some* things to mitigate price/production risk or reduce weather effects, but total control is out of our hands. When we have weather events like we just went through, or look long term at input prices, stress can start to add up.

There's no 'one size fits all' solution to managing stress. They are as unique as we are as individuals. There are, however, resources available to help. If the issue is resolution of a legal or financial matter, maybe the Kansas Ag Mediation Service is the place to start. The Kansas Arability Project provides some excellent resources if you are dealing with a physical disability challenge, but is also a great place to look for farm stress resources as well.

A coalition of organizations together host the Kansas Ag Stress Resources webpage at: <https://www.kansasagstress.org/>. This group of collaborators has banded together to provide multiple levels of stress assistance to benefit youth to older adults and individuals to families.

Not sure where to start? The Kansas Ag Stress Resources page is a great first stop. Additional resources are available in a Kansas AgrAbility publication from K-State Research and Extension entitled *Managing Stress - Tips and Resources*. In addition to some of the above, it provides other helps as well. Find it online at <https://bookstore.ksre.ksu.edu/pubs/MF3568.pdf> or request a copy (confidentially) via e-mail to [dhallaue@ksu.edu](mailto:dhallaue@ksu.edu).

Above all, don't hesitate to reach out. A conversation with a friend/family member *may* be what it takes to ease your mind. Trusted clergy or mental health professionals can be helps, too. The autonomy we enjoy in agriculture is great, but a *little* help isn't a bad thing, either.

## Christmas Tree Disposal

K-State Research and Extension Forester Charlie Barden is all about making the most out of plant material. As a forester, he obviously loves tree plantings, but he's also interested in what you do with trees *after* they've served their purpose. One tree that will soon have served its purpose is your Christmas tree.

Without stealing his thunder, I can tell you he's got some neat ideas for your 'ready to discard tree' for bird and fish habitat enhancement – including instructions for sinking that tree in a pond. He also shares tips for recycling the tree in to landscape mulch and even garden stakes next spring. Check out his ideas in the latest edition of the KSU Horticulture Newsletter at: <https://hnr.k-state.edu/extension/horticulture-resource-center/horticulture-newsletter/>.

## Ross Mosteller

District Extension Agent  
Livestock & Natural Resources

### Cold Hardy Cattle

Extreme swings in temperature have existed for thousands of years, but today's instant information, digital world, with headlines like "Historic Siberian Polar Vortex and Intense Bomb Cyclone Blizzard" scare people into believing this is unprecedented weather. I tend to like to interact more with cows than mainstream media as they have more practical sense. I can't recall a winter when the herd didn't grow in a winter hair coat, so believe preparing for these events is just part of livestock DNA. The cows might have a winters coat on now, but are they ready for weather like we've experienced lately?

Surviving harsh winter weather boils down to a few main issues; temperature, moisture and windspeed, mainly. Lower Critical Temperature (LCT) outside of the Thermal Neutral Zone (TNZ) is something referenced in discussions around cold weather. Essentially this is the point the when a resting animal must increase its metabolic rate to meet environmental demands for heat. When animals reach this point and don't make up for increased energy demands from feed, body storage reserves are used. Cows in good body condition, BCS of 5 to 6, with good thick, heavy, winter hair coats have a lower critical temperature around 19° F.

To illustrate how much of an impact moisture has on LCT, a cow with a wet hair coat to the hide will have a lower critical temperature in the mid to high 50s°F compared to 19°F. Shelter from wind and bedding will help in keeping coats drier and lowering LCT for cattle. The general rule of thumb is that for every degree of cold stress a cow faces, energy requirements increase by 1%. This energy need would double to 2% if the animal is wet to the hide. For example, windchills at 0°F equates to a 30-40% increase in energy demand, just to keep the cow in a maintenance status. Crop residues, grass hay or other lower quality forage cows have been doing well on in a mild fall, will simply not meet energy requirements in periods below LCT.

Cattle can gradually adapt to changing temperatures with more success than sudden changes that often accompany low pressure storm fronts. However, cows tend to lose their acclimation to cold weather with series of nicer thermoneutral days. When cows get below their lower critical temperature and get into cold stress, they can adapt by increasing feed consumption to increase their base metabolic rate, which increases the heat of rumen fermentation. Research has shown that this can be up to 125% of expected intake, but if conditions are extreme enough, intake actually decreases. This creates an even more problematic situation, as animals eat less and may not leave the comfort of shelter from wind.

As we discussed for heat stress this summer, the Kansas Mesonet Animal Comfort Index is a good tool to see cold stress levels for livestock. Adding supplemental energy to diets in these cold stress times is critical. So how much extra nutrition? The classic Extension answer is that it depends! Knowing the nutrient value of feedstuffs you have on hand is important and we can help you run scenarios at the Extension office with our ration balancer software.

A good energy value to refer to is total digestible nutrients or TDN. High quality alfalfa hay usually has a TDN of 58-60% and should meet requirements for dry, good body condition animals at windchill temperatures into the below 0°F range. Corn is a very good and generally available, high energy option (88% TDN) but caution should be given to work it up in a diet slowly to prevent rumen upset. Transition diets with corn need to step up to around 0.3-0.4% of body weight consumed, over 2-3 weeks. Unfortunately, neither of these options are "cheap" this year, but you can't afford NOT to supplement either. A good resource for more information on this topic is the [K-State Beef Cow Nutrition Guide C735](#), found at the KSRE online bookstore.

**Teresa Hatfield**  
District Extension Agent  
Family and Community Wellness

### **Saving Money on Prescription Drugs**

With Medicare Open Enrollment behind us for another year, what can you do to save money on prescription drugs? Maybe you are enrolled in a Medicare Part D plan but are still looking for ways to save money; there are still ways you might be able to save money at the pharmacy.

For Medicare beneficiaries, the "Extra Help" program, also known as the Part D Low-Income Subsidy (LIS,) can help people with low-income pay for the Part D premium, deductible, co-pay, and co-insurance. The program considers income and asset levels. In 2022 if your monthly income is less than \$1,719 (\$2,309 for couples) and your assets with a burial exclusion are less than \$15,510 for an individual (\$30,950 for a couple), you may qualify. You can apply to the program through the Social Security Administration.

Medicare beneficiaries can also request a tier exception for a particular costly drug. For example, your Medicare Part D plan covers your prescription, but your copayment is still too expensive. Your medication could be in a higher tier. Higher-tier medications generally cost more. Using the Part D appeal process, you can ask your plan for a tier exception. For this request, you or your doctor must show that lower-tier drugs are ineffective or dangerous. Your plan will cover your prescription at the lower tier rate if approved. You cannot request a tier exception for specialty tier drugs.

If you are taking a brand-name medication, ask your doctor if there is a generic medication available that you can take. Generic drugs are often less expensive than brand-name drugs. See if your doctor can also provide you with some medication samples.

Some retail pharmacies offer year-round discounts on generic medications. Check with your pharmacy to see if they can sell you any of your prescriptions at a lower price. Pharmacies sometimes offer special promotions (limited time) to market a medication you take at a lower price. You will need to tell the pharmacist to refill your prescription without going through your Part D plan. You must submit a receipt to your plan if you want it to count toward your catastrophic coverage limit.

Drug discount cards are another option to save you some money. They work at network pharmacies. You must choose whether to use the discount card or your Part D insurance; you cannot use both. Also, if you use the discount card, the amount you spend on the drug will not count toward your out-of-pocket expense for your insurance. Also, remember that the amount you pay one month for your prescriptions with a discount card may be different from what you spend the next. Ensure you understand the "terms of use" and "agreements" of the discount card to use and store your patient data.

Drug manufacturers may also offer help paying for medications. They may have specific income and asset guidelines. They sometimes may not be available for people on Medicare Part D. Charity groups and patient assistance programs may be another option.

If you have questions about these options, don't hesitate to contact Teresa Hatfield with the Meadowlark Extension District for more information at 785-364-4125.

## Cindy Williams

District Extension Agent  
Family & Community Wellness

### **Making Holiday Memories**

The kitchen is a wonderful place to make holiday memories with children. The sights and smells of holiday baking often create a treasured experience as well as an opportunity to teach important skills to children.

Overwhelmed with too many delicious holiday treats? The kitchen can also be used to make non-edible gifts. Homemade gifts such as a salt dough ornament can cost very little and are fun for kids of all ages to create. Did you every make a salt dough ornament or handprint as a child?

Salt dough is easy to make. It only requires three ingredients, and can be used to make ornaments, figurines, and other items. The creations are then baked and decorated. Young children can help scoop, measure, dump, mix and knead the dough. This helps children build small muscle skills, social skills and math skills.

A word of caution---raw flour may contain bacteria that can cause illness. Flour does not look like a raw food, but typically, it is. This means it has not been treated to kill germs such as Escherichia coli (e. coli), which causes food poisoning. Bacteria are killed only when food made with flour is cooked. Never taste or eat raw dough or batter. Make sure children wash hands before and after handling salt dough.

#### Salt Dough for Crafting (NOT FOR EATING)

\*4 cups flour

\*1 cup table salt

\*1 ½ cups water

1. Wash hands with soap and water. Preheat oven to 300°F.
2. In a large bowl, measure and mix the flour and salt. Add water to the dry mixture.
3. Mix all the ingredients together with a large spoon. Use clean hands to finish brining the dough into a ball shape. Place the dough on a flat surface lined with parchment paper or aluminum foil.
4. Knead the dough for a few minutes. Roll out the dough using a rolling pin or a glass. Divide dough into 2-4 smaller pieces for easier handling. Cut out ornaments using cookie cutters, move to ungreased cookie sheet. Poke hole using a straw in order to add a ribbon to hang the ornaments. Transfer parchment paper (with dough items on top) to a baking sheet.
5. Bake for 1 hour in a 300°F oven, or until dough has hardened. Once the crafts have completely cooled and dried, young children may decorate with water-based paint. A variety of colors of ribbon or string may be used to hang the crafts. They can also be hung as-is on a nail on the wall.

For handprint craft: Roll dough to ¼ to ½” thickness. Use a 4-5” round cookie cutter (or the rim of a bowl) to cut out circle shapes. Press the child’s hands in the center of each circle shape, making sure fingers and palm press down to an equal depth, then gently and slowly take hand off. Use a paper lollipop stick to make a hole if you intend to hang the handprint.