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District Extension Agent
Crops & Soils/Horticulture

Soybean Freeze Injury?

Each spring there's at least one cold snap when temperatures drop *just* to the point of being potentially damaging. Seldom is it big issue, but if you *do* notice a few plants with odd looking injury, cold temperatures could be to blame.

Germinated soybeans still below ground won't likely see much injury, either. If plants have begun to emerge, damage potential increases. As soon as a soybean emerges, growing points are exposed, meaning damaging temperatures (typically 28-30 degrees F for several hours) *could* be an issue.

Will we see damage? If plants are just emerging, with the hypocotyl hook (area of the stem below the cotyledons) exposed at or just below ground level, the risk for damage is highest and of greatest concern. Because they are mostly water and fairly thick, emerged cotyledons actually have more frost tolerance than you might expect. Unifoliate leaves exposed? All of the growing points are now exposed, but even if low temperatures damage the stem tip, there are still two more growing points where the cotyledons attach from which growth could occur.

Because temperatures – and duration of exposure, topography, etc... - are variable, it will take three to five days of good growing conditions before you'll know too much. At that point, look for water-soaked lesions on cotyledons or brown/dried leaves/hypocotyl tissues.

Fruit Tree Frost/Freeze Injury to Fruit Trees

How cold did it get over the weekend? Tis the season when we start worrying about fruit tree damage from late spring cold snaps.

As flower buds begin to swell and open, temperatures below 24 degrees can cause damage or kill buds. If at full bloom, flower buds will start to suffer damage as temperatures approach 28 degrees F. Injured flowers may appear normal, but the pistil (center part of the flower) could be damaged, and trees will not bear fruit.

It takes several hours after a freeze event for any type of damage symptom to develop. Frozen tissues will turn brown or black as they thaw, giving you an idea of the extent of the damage. Make sure you look the tree over thoroughly. Sometimes one bloom will be injured, but another will not. Give some time for recovery before looking too hard. While we do lose fruit production if temperatures drop too much, the trees as a whole shouldn't be damaged.

Ross Mosteller

District Extension Agent
Livestock & Natural Resources

Livestock Injection Basics

If you are following along with my mumblings, and if articles are run in sequence, this is a follow-up to processing calves from last week. We spent some time talking about animal and vaccine handling, but today the focus will be on placing those vaccines using proper techniques. One of the most important aspects of quality in our industry is performing injections properly. Remember that your injection techniques have a big impact on meat quality, personnel safety and product efficacy. Review your practices with your herd health veterinarian.

Adequate restraint is a basic requirement. Every effort should be made to have the animal still when administering an injection. Needle movement during intramuscular (IM) injections increases muscle damage, and could cause a significant portion of the injection to be deposited subcutaneously (SQ or SubQ). Movement during SQ injections may lead to a significant portion of the injection ending up IM. Restraint can be accomplished with chutes, cradles, gates, ropes or good old fashion brute cowboy strength, but it is paramount to injection success and safety.

In either injection case, the result is a product in a different site than intended. This may affect efficacy and can contribute to an altered withdrawal time. The "tented technique," where the skin is pinched and raised with one hand while injecting parallel to the hide with the other hand, should only be used when the animal is restrained in a squeeze chute or completely immobile. It works well, but does pose a human injection risk if you are not careful.

The injection site audit work done within the industry illustrates the importance of staying away from the top butt for all injections and confining IM injections to the neck. The best way to learn the injection site triangle in the neck is to ask for an anatomy lesson from your veterinarian (especially during a necropsy), attend an injection site demonstration or online BQA trainings. If you're giving IM neck injections in front of the head gate, you're likely giving injections too far forward in the neck. Consider SQ-labeled products whenever possible.

Separation between injection sites is as important as site selection. Moving a hands-width away for the next site is a good rule to follow. On small calves, this may mean only two to three injections per side of the neck. If you find yourself routinely running out of injection sites, it's time for an in-depth evaluation of your preventive and therapeutic programs. Read and follow volume-per-site instructions. It's a rare case where more than 10-15 ml per site is indicated.

Needle selection and care are essential to quality assurance. A 16-ga. needle is the maximum size for IM injections. An 18-ga. needle may be used for administration of some products, but proper restraint becomes more important to avoid bending and possible breakage of these small needles. Discard bent needles. Never straighten and reuse them due to potential breakage. Needle length for SQ injections shouldn't exceed three fourths inch, and one-half inch may be the best choice. Many IM injections can be done with a 1-in. needle. If you feel resistance as the needle penetrates the hide, check for barbs. It's probably time for a new needle and remember new needles are needed every 10-12 animals.

Protecting product integrity (sterility and efficacy) includes always drawing the product from the original container and paying attention to sanitation of syringes and injection systems. A new sterile needle should be used every time you draw product from a multi-use container that will not be used immediately. The rubber stoppers in these bottles also tend to dull needles very quickly. Remember that even traces of soap or disinfectants left in syringes can inactivate modified-live viral vaccines.

Teresa Hatfield

District Extension Agent
Family and Community Wellness

What is a Medicare Medical Savings Account?

A Medicare Medical Savings Account (MSA) is a Medicare Advantage plan you may not have heard much about. The Federal government pays private insurance companies to manage healthcare coverage for Medicare beneficiaries. Like other Medicare Advantage plans, a Medicare Medical Saving Account must provide the same benefits, rights, and protections as original Medicare. These plans combine a high deductible health plan (HDHP) with a savings account to help pay for medical costs.

HDHPs have high deductibles that need to be met before the plan will help cover any of your medical costs. This deductible must be met every year before the plan will cover your health care costs at 100%.

With these plans, Medicare gives your insurer a certain amount for each beneficiary. The plan deposits these funds into a bank account. The plan bases the dollar amount on the type of MSA you have. You can use these funds to pay the high deductible. The amount of money deposited into the bank account is usually less than the deductible, so you must pay the remainder out of your pocket. You cannot contribute any of your funds to the medical saving account. Funds contributed by the MSA are not taxed as long as you use them to pay for qualified medical expenses. Once you reach the deductible, your plan will cover 100% of the cost of Medicare-covered services.

Some Medicare beneficiaries are not eligible to join MSAs. These people include;

- those that have health coverage that would cover the MSA plans deductible, like benefits through an employer or union retiree plan,
- those that have joined another Medicare Advantage plan,
- those that receive benefits from TRICARE or Veterans Affairs,
- those who are retired from the Federal government and are a part of the Federal Health Benefits Program (FEHBP),
- those who are eligible for Medicaid,
- those who are receiving hospice care,
- those living outside the U.S. more than 183 days a year,
- those that have any other type of health insurance.

You can only enroll in an MSA when you first sign up for Medicare Part B or during Medicare Open Enrollment in the fall of each year.

Here are some other things to keep in mind about these plans. They do not come with Part D prescription drug coverage. To have Part D coverage, you must purchase a separate Part D. Some plans offer a network of healthcare providers. However, you can get coverage from any Medicare provider. Money left in your account at the end of the year stays in the account and can be used in future years. You will still have to pay your Part B premium to Social Security, but you will not have to pay a separate monthly premium for the plan.

If you have a question about Medicare Medical Savings Accounts, call Teresa Hatfield at the Meadowlark Extension District at 785-364-4125 or email at thatfield@ksu.edu.

Cindy Williams

District Extension Agent
Family & Community Wellness

Preparing For The Storm

Tornado weather has hit Kansas already this year. Are you and your family prepared for the next storm? Talk about what each of you will do if a storm approaches. Stress safety procedures with children in case they are home alone when a storm strikes.

If severe weather is in the forecast, stay alert and tune your radio or TV to local stations for the latest on approaching storms.

Stay dressed even though it may be late evening when bad weather approaches. Jeans or slacks, a long-sleeved shirt in addition to anything short sleeved plus closed shoes are basic. Forget the flip flops as they give little protection if you have to work your way out of a basement after your home is damaged.

Stock your basement or storm shelter with these basics: a portable radio with extra batteries, flashlights, blankets, bottled water, or water in a jug, non-perishable snacks in a sealed container, a jacket for each family member, and leather gloves. For young children, stock diapers, and a couple small toys. You may want to pack a bag with a change of clothing for everyone in the family and keep in the shelter. Also, store a small first aid kit along with a couple towels in case someone gets cut or you need a pressure bandage.

Is there something in your storm shelter or basement that you could get under or use to protect your head if a storm hits?

When you go to your basement or storm shelter, what will you take? If you are prepared, you should be able to just grab and go. Have a basket or tote bag readily available for tossing in items to take to the shelter.

- Keep medication in a container that can be easily picked up. You may need more than your weekly pill box, so have bottles in a bag or basket.
- Wear valuable jewelry so you don't have to search for your diamond ring just before heading to the basement. If you have other jewelry you value, put it in a container that can be quickly retrieved.
- Glasses you don't wear all the time along with spare glasses or contacts should be easily assessable to toss in the bag.
- Have your billfold in your pocket or your purse handy to grab as you go to shelter. Store emergency cash that you may need after a storm in the shelter.
- Family pictures that are not on a computer jump drive can be stored in the basement during storm season, or placed in a box that is easy to grab. Computer records should be backed up regularly and copies stored in the shelter or at another location.
- Keep cell phones charged and with you. Place phone chargers in a basket or tote bag to go to shelter. Put ICE in our cell phone contacts. ICE stands for, In Case of Emergency. It provides anyone who finds your cell phone a contact in case you are injured and cannot make that contact.

If car and house keys aren't in your purse or pocket, be sure to toss them in your bag as you head to shelter.

Talk to family members about a contact such as a relative who lives away who will be the contact for everyone to report they are safe.

Make time to organize vital records such as copies of birth certificates, numbers for insurance agents, copies of medical insurance cards, medical providers, list of medications. Place in a waterproof box and store in your shelter.

Most importantly, stay aware and get to shelter when a storm approaches. The joy of watching a storm and taking pictures is not worth jeopardizing your life or safety.