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Campbell, Crook, Johnson, Sheridan, and Weston County

Cooperative Extension Services Combining to Serve NE Wyoming

UNIVERSITY of WYOMING

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Northeast Extension Connection

A GOLDEN RULE FOR BOARD RESIGNATIONS

by Bill Taylor Northeast Area Community Development Educator

At some point you may resign from a nonprofit board before your term is up. You might be angry, disappointed, or just too busy. Don't botch your resignation: do it right.

Most often as board members we stick out our term limits and leave the board feeling good about what we've contributed. But there are also times when you resign before your term is up. Maybe you've missed a lot of meetings or maybe you're moving to another city. Maybe you're uneasy with the direction the organization is taking, or maybe you feel that as a board member you are treated like a "mushroom": kept in the dark and fed manure (!).



Regardless of your reason, you can just walk away quietly, or make a weak excuse, or you can use the moment to give meaning to your resignation, both to you and to the board.

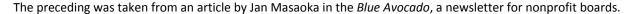
Following are some ways to make significance out of your resignation:

- If you have concerns about the organization or the executive director but haven't voiced them, consider raising them to the board president before finalizing your decision to resign. In one organization where seven former board members were interviewed, every one of them had resigned because they weren't happy with the executive director, yet they never told anyone. At minimum, raise your concern to the board chair or an officer you know: "The reason I'm really resigning is because I don't feel confident that Jim is doing a good job as executive director. I can't work constructively with him, but at the same time, I don't want to prevent the rest of you from working with him. I want to be honest with you about why I'm resigning, and later on it may be important for you to know why."
- If you've been AWOL due to other commitments, be honest about your situation. "I haven't been the board member I wanted to be. And I realize it's demoralizing to everyone when someone is as absent as I have been. I don't think things will change for me, so I've decided to resign." If this is your situation, commit to doing one more specific task after leaving, such as getting two items for the upcoming silent auction or attending the city council hearing on zoning the following month.
- If you are resigning because you strongly disagree with a major organizational decision, consider serving as the "loyal opposition." You should be aware that leaving may look like "sour grapes," but if you're out-ofstep with everyone else, and you aren't comfortable staying, leave gracefully but with principle. Consider writing a letter to the board explaining your position and read it aloud at your last board meeting. Ask to have it entered into the minutes. The board members who were absent from the meeting will hear your comments, and years later the record of the debate may help the board of the future.

• If you simply feel ineffective or useless as a board member, think about why that's so. Is it because the board has an executive committee that decides everything of importance, leaving little for the whole board to do? Is it because neither the executive director nor the board chair really knows what to do with the board and with board members? Is it because the executive acts on his or her own and the board is an afterthought? Can these questions be raised with the board's leaders who can address them with you?

The Golden Rule of Board Resignations: when you resign, do it the way you would like others to resign. It's unsettling to have fellow board members resign without knowing the reason, or suspecting that their stated reason is just an excuse.

Whatever your reason, resign right. Tell the board chair first, then the executive director, then the whole board. If you will be attending one more meeting, bring cookies or another gesture of goodwill. They will be listening carefully to your "last words," so make the most of the moment to contribute to the organization and its cause--just as you did when you first joined the board.



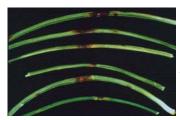
Brown Pine Trees

By Scott Hininger

UW Cooperative Extension Service, Sheridan County, Northeast Area Sustainable Agriculture Educator

I have been receiving many calls about why are my pines turning brown? Mainly on the top or upper branches. It seems with the weather pattern we have had this last year, especially last October, trees are under a lot of stress or damage. There are several reasons why evergreens turn brown, too much water, not enough water, frost, insects or disease. Last October we received a very cold spell, which browned the outer needles of pines and spruces. Dry conditions can cause overall browning of needles, not just the top, which is the same overall appearance of spider mite damage. Therefore, if just the top or upper branches are effected then either a disease or insect is the main culprit.

There are several diseases, which can cause brown needles or dead looking branches. Such as, Brown spot, which affects most pines, especially Scotch and ponderosa. Spots that enlarge to bands and encircle the needle develop in late July and August. Diseased needles often have dead tips. Killed needles drop late in the fall. Dothistroma Needle blight (also called red band), effects two-and three-needled pines are affected but most common on Austrian pine. Chlorotic spots appear on infected needles in fall and winter. Spots spread, turn red/brown and girdle needles causing the distal end to die. Black fruiting bodies break through lesion surface in spring. Defoliation can be severe. Remove the lowest whorl of branches on young trees.



Needlecast, effects two-and three-needled pines, especially Austrian red and Scotch pine. Current season foliage develops yellow spots which turn brown with yellow margins in late fall and spring. Black, elliptical fruit bodies mature in or just beneath the epidermis in late summer. Needles brown and drop. Twigs die back. Spores are released during late summer/early fall rains with most infection occurring in August and September.

For disease control there are several products available, most homeowners are familiar with "Bayer" (blue container) disease control, some others to consider are; "Cleary" 3336, "Syngenta" Banner MAXX (Propiconazole), Daconil (Chlorothalonil), "Dow AgrSciences" 'Fore' or 'Dithane' (Mancozeb). Where ever you purchase lawn and garden products check the label for disease control on trees and shrubs. The above-mentioned diseases are fungal and a fungicide control is what is needed. Most products are broad spectrum and will cover several diseases. It is a good practice to alternate products to receive broader control and to prevent resistance. Several applications will be in order especially in the spring as a preventative measure.

The main culprits for insect damage to the top or tips of pines are the pine tip moths which feed on and destroy new growth (terminals) of pines grown throughout most of Wyoming. Injury often is quite conspicuous, and infested plants may appear unattractive. Although little real injury to the health of the infested tree results from pine tip moth attacks, tree growth can be delayed and the form altered to a bushier appearance.

Tip moth injury can be diagnosed during early to midsummer by examining suspect shoots that have dried and shriveled. At this time, the damaging stage of the insect or old discarded skins can be de-



Pine tip moth larvae, showing the 'drilling' damage.

tected. If the insect is not present, examine the damaged terminal growth to see if there is evidence of the internal tunneling typical of most tip moth injuries.

For controlling these and most insects there are some very good systemic which can be applied in the fall or early spring. Bayer and Ortho companies offer products, which work very effectively and are systemic.

I would also recommend that all trees be deep watered now and up through the fall. Fertilization of stressed trees is also recommended.

WINTER WATERING

(Taken from UW "Winter Watering" Bulletin by Karen Panter, PhD, Extension Horticulture Specialist)

Winters in Wyoming can be difficult and are almost always windy. Temperature extremes and constant winds often remove what little moisture remains in the soil from the previous growing season and any snow that may have fallen.

Dry soils can seriously damage root systems of herbaceous perennial plants as well as woody shrubs and trees. The reason is dry soils change temperature very quickly. They also heave, expand, and contract with changes in temperature. The resulting soil movement can physically damage or destroy roots.

Moist soils, on the other hand, change temperature much more slowly, which is one of the basic properties of water. Consequently, soils kept moist during the winter are less susceptible to temperature changes and do not expand and contract like dry soils do. Keeping soil moist tends to save root systems from being damaged.

Evergreens are most susceptible to winter drying since they do not lose foliage during these months. In lawns, grass roots may die, leading to large areas of dead turf. Any plant stressed from winter desiccation is more likely to succumb to disease and insect problems the following growing season.

Spring bulbs may not bloom properly. Lack of water for bulbs can lead to brown or deformed flowers or flowers that don't open at all. Perennial herbaceous plants may show root loss, and crown buds may die due to inadequate winter watering. If perennial plants, especially new ones, are not watered during the winter, symptoms of winter desiccation may appear during the next growing season. Symptoms usually include branch dieback and leaf burn or even total plant loss.

Mulching and watering during the winter months can help. Mulch tends to insulate the ground and keep the soil at relatively constant temperatures. Watering fills open spaces and can help seal cracks in the soil and minimize root damage caused by temperature swings.

During the winter, when there is no snow cover, when temperatures are above 40 degrees Fahrenheit, when the ground is not frozen, and when the wind is not blowing, homeowners are encouraged to get out their hoses. Water enough to moisten the soil at least 6 to 8 inches down. Remember to drain and store hoses again to prevent ice damage to the hose or water taps.



Fall and winter watering, October – March, one to two times per month, depending on weather, temperature and soil conditions.

Grass Hay Maturity and Quality

Blaine E. Horn, UW Senior Extension Educator, Northeast Area Rangeland Educator

I've noticed that a few grass hay fields in Johnson County were not hayed until mid - to late August this year. This may have also occurred throughout the Northeast Area. I'm not sure why producers waited so long before they hayed these fields but it is unadvisable with respect to meeting livestock nutritional needs with this hay. Generally, grass hay fields, especially irrigated ones, are ready to be cut by the latter part of June. Granted, temperatures will influence when grass and other forages (e.g. alfalfa) have reached the optimum harvest stage and this year that may not have been until after the first of July for grasses in many locales but late August is way beyond that point even for this year.



What is optimum harvest stage? It is when dry matter yield and forage quality are at their maximum

levels relative to each other. As forage plants grow they add dry matter until they reach maturity but at the same time their quality, especially crude protein, declines. The producer's goal should be to harvest the hay crop at the stage of maturity that obtains the greatest amount of dry matter yield (T/ac) but the forage also contains adequate nutrients to meet the needs of the livestock it is to be fed to. This stage for grasses is generally when seedheads have emerged but prior to seed set.

For bromegrass hay (smooth or meadow) what can we expect its quality to be at potential harvest stages? At pre-bloom (seedheads emerged but flowers not present) crude protein levels are reported to average 16% whereas at maturity (seed set) it drops to an average of 6% which is borderline in meeting a dry beef cow's needs and well below her needs when in lactation (≈ 10%). Total Digestible Nutrients (TDN) declines from an

average of 60% to 53% and Net Energy for maintenance (NEm) from 0.60 to 0.49 Mcal/lb. With regard to TDN and NEm mature brome hay will meet the needs of a dry cow up to her eighth month of pregnancy (45% to 52% and 0.37 to 0.49 Mcal/lb) and pre-bloom hay that of one in lactation (60% and 0.60 Mcal/lb) although it can be borderline at times.

For hay producers who raise hay to sell and do not have livestock to feed harvesting grasses when they have reached maturity to obtain maximum dry matter yield is understandable, especially if their hay customers do not appear to be concerned about quality other than that the hay looks good. However, as pointed out above even though grass hay may look good it does not mean it will meet the nutritional needs of the livestock it is to be fed to. Thus, those producers who plan on feeding the hay they raise to their own livestock or have customers that are cognizant of the importance of quality they are going to want to harvest the grass before its quality, especially crude protein, drops below the level required by the livestock it is to be fed to. Otherwise the hay will need to be supplemented and that increases winter feeding costs. Thus for the hay purchaser, buying on quality is important but it is also so for the hay producer feeding it to their own livestock. The hay producer may not harvest as much hay as they would if allowed to reach maturity but not as much of the hay will be wasted by the livestock and the provision of a supplement may not be necessary.

I have no hard data on how much less bromegrass hay would be harvested at pre-bloom compared to at maturity but would venture to guess it would not be much more than 500 lb/ac. I base this assessment on the amount of hay harvested from an irrigated grass hay study being conducted at two locations in Johnson and Sheridan Counties. The grass plots have been harvested between 21 and 30 June over the past seven years and smooth and meadow brome have been in the pre- to mid-bloom stage and have yielded an average of over 3.0 T/ac. At \$80/T for grass hay this would be a potential loss of approximately \$20/ac. However, if the hay is sold on quality this potential loss could be offset by being able to justify a higher price for the hay.

In addition, savings in not having to purchase supplements to make up for a lower quality hay could very well be greater than the less amount of hay as livestock will not require as much good quality hay as they will lower quality hay to meet their needs.

Based on the above discussion I hope it is obvious that whether you are a hay producer or buyer you should have the hay you plan to feed your livestock analyzed for its quality, at least for crude protein and Net Energy for maintenance. Knowing hay quality will allow you to formulate a balanced ration to meet your livestock's nutritional needs at the lowest possible cost.

Let's look in more detail as to what differences in hay quality actually mean for the livestock?

A 1200 lb dry cow in late gestation requires about two pounds of crude protein daily. To meet this, a feed needs to contain at least 8% crude protein. Crude protein content of winter range grass is at best 4% so an additional source of crude protein is needed. If the hay provided contains no more than 8% crude protein it will have to consist of her entire diet (minimum of 24 lb dry matter/day) to meet her crude protein needs. She may still consume some range grass but this resource will not be fully utilized. If, however, the hay provided contains at least 14% crude protein she will require about ten pounds of it in addition to the range forage to meet her daily crude protein needs. However, if the hay contains only 6% crude protein she will obtain less than 1.5 lb from it even if it consisted of her entire diet. Thus, another supplement would need to be provided in addition to the grass hay. Depending on what supplement is used cost to make up the lack of protein provided by the grass hay can be more costly than if the hay had been harvested at an earlier stage of maturity.

Hopefully the above shows the importance not only harvesting grass hay at its optimum stage of maturity but also of forage testing and balancing rations. Also remember that besides crude protein a ration also needs to be balanced for energy and minerals (e.g., calcium and phosphorus).

Your local University of Wyoming County Extension Office can provide information on how to take a forage sample, where to send them for analysis, interpretation of analysis results and suggestions on how to balance a feed ration.

For Your Information

Mountain Pine Beetles (MPB) are one of the most damaging insect pests of Wyoming's pine forests. The MPB has caused extensive damage to trees on mountains, and in urban or urbaninterface areas all pines are susceptible. They have resulted in the loss of millions of trees annually. The problem exists Statewide in any forested area. MPB develop in all mature pine species; ponderosa, lodgepole and limber pine.



Pine Beetle and Larva

Outbreaks of MPB develop regardless of property lines, being equally evident in wilderness areas, mountain subdivisions and urban back yards. Even windbreak or landscape pines many miles from the mountains can succumb to beetles imported in infested firewood.

Beetles have almost totally depleted some commercial pine forests and, in some cases, have converted valuable forests to less desirable timber species such as subalpine fir. Sometimes, forested areas are reduced to grass and shrubs.

The profusion of beetle-killed trees can change wild-life composition and distribution by altering their habitat, hiding and thermal cover, and by impeding their movement. Moreover, the dead trees left after epidemics are a source of fuel accumulation that will, in time, burn unless removed.

Mountain pine beetles and related bark beetles in the genus Dendroctonus can be distinguished from other large bark beetles in pines by the shape of the hind wing cover. In side view, it is gradually curved. The wing cover of lps or Pine Engraver beetle, another common group of bark beetles attacking conifers, is sharply spined.

Trees most likely to be attacked are limited largely to trees not growing vigorously due to stress from injury, drought, poor site or growing conditions, fire or mechanical damage, overcrowding, root disease or old age. As beetle populations increase, MPB attacks may involve most large trees in the outbreak area, healthy or not. Do what you can; check the trees on your property monthly for signs of the beetle. Cut down dead trees to lessen fire danger and dispose of properly. (Material from: *FIREWISE WYOMING*)

Sanfoin — Is It An Ideal Legume for Pasture or Hay?

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By Gene Gade
Northeast Area UW Extension Rangeland Resources Educator

The search for the ideal legume to seed into dryland hay pastures is something of an obsession for a lot of livestock and forage producers. The quest for the perfect legume is probably not in the category of the Holy Grail, Fountain of Youth, Seven Cities of Gold or Helen of Troy, but it's certainly a topic of long-term interest.

Sanfoin's Admirable Traits

Sanfoin is one of candidates for the "ideal legume" designation. Sainfoin is close to alfalfa in nutritional value. It's usually in the 14% to 17% range in Crude Protein (CP) and often has Total Digestible Nutrients (TDN) comparable to alfalfa (ex. mid-60's). Moreover, Sainfoin has one quality in which it is superior to alfalfa. It does not cause bloat when it is grazed, and should therefore be a good species in a grass-legume pasture used for grazing or in a field cut for hay.

Sanfoin often grows taller than alfalfa, reaching up to 36". First cutting yields are usually comparable to those of alfalfa, but sanfoin does not regrow as well. Therefore, in irrigated stands, Sainfoin hay production is lower than alfalfa. Also, under irrigation, sanfoin is vulnerable to nematodes and diseases and generally does not live as long as alfalfa (often 5-6 years).

Sanfoin has other admirable characteristics. It matures faster than alfalfa and therefore can be used as an early spring forage. It stays green during the summer. It is fairly drought-tolerant and is hardy enough to tolerate Wyoming winters. It thrives on the calcareous soils typical of western North America. Bee keepers say that the honey yield from sanfoin is much higher than from alfalfa.

Sanfoin contains moderate levels of condensed tannins (while alfalfa and most grasses are very low in tannins). At high levels, tannins reduce palatability and digestibility of plants, but at the levels, occurring in Sanfoin, tannins help control internal parasites in sheep and goats. Tannins or not, Sanfoin is one of the most palatable of all forages for sheep, cattle...and deer.

An Ice Cream Plant?

In pastures, Sanfoin may be grown in mixed stands with such species as wheatgrasses, bromes or Russian wildrye. However, Sanfoin's extreme palatability



is a mixed blessing. Domestic livestock love it to the point where selective grazing may take it out of a mixed-species stand. Moreover researchers at the University of Wyoming research stations at Archer and Powell and in Montana needed deer fence to keep wildlife from devastating the stand. Very limited trials in Crook County in the early 1990's experienced similar problems with overuse by wildlife. In a grazing system, a short-duration/more intensive grazing use might be better for limiting the heavy use that sanfoin is likely to experience under a longer-duration/less intensive grazing program.



Sanfoin continued

Establishment and Management

Several cultivars of sanfoin are available, including the "Shoshone" variety that was developed here in Wyoming and Montana. Seed is available from sources in Wyoming.

Sanfoin has a much larger seed than alfalfa (about 30,000 seeds per pound of sanfoin vs. 220,000 seeds per pound for alfalfa). Like other legumes, sanfoin produces pods. However, there is usually only one seed per pod. Often the entire pod is planted to a depth of 3/8" to 3/4". Sanfoin will grow on many types of soil, provided that they are well-drained. Seeds must be inoculated with the appropriate Rhizobium bacteria, and the seedbed needs to be firm and well-packed. Seed pods are spiny and may stick together, so caution must be taken to assure that they feed uniformly through the drill. Planting is

If plants are occasionally allowed to make seed, they are capable of reseeding themselves and stand longevity

usually in the first half of May.

may be increased. Again, the main problem with sanfoin may be that it is **too** tasty and nutritious for its own good. It is recommended for example that sanfoin **not** be planted near shelterbelts because the combination of trees and shrubs next to this highly palatable legume may result in even higher use by deer, elk and antelope that would be detrimental to both sanfoin and the woody species.

Sainfoin has dense,

showy pink, purple or white pea-type

flowers. Leaves and

stems are course, but

highly palatable.

Sanfoin As Hay

Sanfoin is well-suited to hay harvesting in one-cutting per year situations. It grows upright, cuts easily, cures well, does not lose its lower leaves, maintains succulence and nutritional quality as it matures. It has been used successfully as hay for horses, even draft animals, but mostly in Europe. It does not re-grow well and does not compete well with aggressive grass species. Therefore, if the goal is to hay sanfoin, it should be planted in monocultures and cut only once per season.

Holy Hay or Holy Grail?

Sanfoin was sometimes referred to as "holy hay" in medieval Europe, but is it the Holy Grail legume we've been seeking? Probably not, but, properly managed, it can be of value in either a grazing or haying program...if you can keep wild critters at bay enough for it to survive and produce.

Range Condition and Profitability

Ranchers, economists and rangeland professionals are always trying to figure out how to graze at levels that allow sufficient income to support the operation without damaging the natural resource base on the long term. For many years, the general wisdom was that to achieve long-term sustainability, rangeland must be kept in high-good or excellent condition.

This spring, researchers from South Dakota State University and the King Ranch Institute for Ranch Management of Texas A&M published an article that analyzed costs, returns, and profit using 34 years of grazing of a Clayey, mixed-grass prairie range site on a SDSU Research Station about 75 miles east of Rapid City. Over that period, stocking rates had been variable to maintain sites in traditionally defined "low-fair," "good" and "excellent" range condition classes. The analysis was based on cattle weights, historical prices from the USDA Ag. Statistics Service, variable costs and Consumer Price Index. Stocking rate, average daily gain, total gain, net profit, gross revenue and annual costs/hectare varied among range condition classes.

Results

Net income was highest for good condition (\$29.43/ha) which was not statistically different from low-fair condition (\$27.61). Both were more profitable than excellent condition (\$23.01/ha). So, use that keeps the desirable perennials dominant (good condition) is more profitable than extremely light grazing...almost non-use...needed to maintain the outdated concept of excellent condition. Caution in more intensive grazing management should be used to avoid replacement of desirable perennial grasses with less productive species, annual or weed invasion, soil loss or even crossing an ecological "threshold."

Dunn, Barry, et.al. 2010. Long-term production & profitability from

grazing cattle in the northern mixed-grass prairie. Rangeland Ecology and Management. 63 (2): 233-242.

CANNING IN THE 21st CENTURY/CANNING FAQS

By Kentz Willis, M.S., UW Extension Northeast Area Educator in Nutrition and Food Safety

Canning foods for preservation has made quite a bit of progress since it was first invented over 200 years ago. Scientific advancements have greatly improved our ability to preserve food safely—even in the comforts of our own home. Unfortunately, not all home canners are aware of the current canning recommendations. Hopefully my answers to the following questions that I commonly hear will help to alleviate some of the confusion.

Q. Is it okay to can my famous home-made salsa recipe?

A. Sorry, but no—this one disappoints a lot of folks. Water-bath canning works because of the time and temperature of the canning process, as well as the acidity and consistency of the food. Some home recipes could be too thick to allow adequate heat penetration, or may not be acidic enough to be canned safely. This is why I only recommend recipes from Extension offices as well as some of the reputable manufacturers.

Q. What is wrong with the open kettle method?

A. In this method, food is cooked in an ordinary kettle, then packed into hot jars and sealed without processing. Temperatures in open kettle canning may not be adequate to destroy spoilage organisms in the food. Spoilage bacteria may also enter the food while being transferred from kettle to jar.

Q. If the jar seals, am I assured the food will be safe to eat?

A. Not necessarily. It takes a lot less heat to seal the lid than to properly process the contents of the jar. If you followed directions correctly, you can be sure the food will keep and be safe to eat. That is why it is very important to select the correct method and follow directions carefully.

Q. How long may canned foods be stored?

A. The recommended storage time for home-canned foods is one year. However, a period of two to three years is considered a reasonable storage time. With longer storage the eating quality and nutrient content of the food will diminish.

Q. Can I speed the cooling process by running cold water over my canner?

A. No. Never try to rush cooling or any other processing procedures. Recommended heat-up and cool-down periods are necessary to ensure a safe product. In addition, rapid cooling may break the jars or cause damage to your canner.

Don't forget you also need to adjust recipes for altitude! If water-bath canning, increase processing time by two minutes for every 1,000 feet above sea level, or just one minute/1,000ft if the recipe calls for less than 20 minutes processing time. When pressure canning increase the pressure by ½ pound/1,000ft to ensure a safe product.

Your local extension office is a great source for tested recipes, canning questions, or even to test your pressure canning gauge. We also host many canning workshops this time of year, so give us a call if you're interested in being contacted about our next workshop. In addition, up-to-date canning literature is always available at our office, or online at http://www.sheridancounty.com/info/coop/overview.php. Kentz Willis, M.S., is the University Extension Educator in Nutrition and Food Safety for Northeast Wyoming. He can be reached via email at: kwillis3@uwyo.edu.

OTHER FOOD PRESERVATION WEBSITES

UW Food and Nutrition Food Preservation Website: http://uwacadweb.uwyo.edu/cesnutrition/Food_ Preserve/Food Pres UW.htm

USDA Complete Guide to Home Canning: http://www.uga.edu/nchfp/publications/publications_usda.html

National Center for Home Food Preservation (University of Georgia): http://www.uga.edu/nchfp/

Colorado State University for Home CES Resource Center:

http://urc.colostate.edu/

CU CES Food and Nutrition Fact Sheets:

http://www.ext.colostate.edu/PUBS/FOODNUT/pubfood.html

WHAT'S FOR LUNCH?

By Vicki Hayman, Northeast Area Nutrition and Food Safety Educator



Millions of parents face the task of preparing school lunches for their children every day. The challenge is to find a menu that is portable, easy to prepare, and is also appealing to kids.

What a child eats at lunch will impact their learning and behavior in school. It is important to provide a healthy variety of nutritious foods your child will eat! Your child's lunch box should include a good source of protein, calcium, grains and a fruit or vegetable. Follow these steps to improve your child's nutrition and educational level:

Involvement:

In order to get your to eat their lunch you must involve them in the menu planning. This begins before going into the grocery store. Sit down with your child for five minutes and discuss the following week's menu. If your child wants to buy lunch on pizza day, include that decision in your plan. Have your child pick 5 grains, 5 proteins, 5 dairy, 5 vegetables, 5 fruits, and a dessert. Make a computer generated plan that the two of you will sit down with and work on every week before grocery shopping. This gives you the basic starting plan with the added benefits of teaching your child to make good sound nutritional choices. You are giving them power over their own body and a sense of self-worth when you allow them to be part of decisions that affect them.

Planning:

After your child has chosen the menu, review the choices. Suggest some alternatives that might enhance the lunch and increase the nutrition. When he asks for peanut butter and Jelly, ask him if he would like to try peanut butter, carrots and honey! Just because he want P&J doesn't mean your options have closed. To change the menu you only have to change the container. Instead of bread, try a bagel, crackers, wraps, toasted English muffin, or a pita pocket to spice up a boring sandwich. A simple apple can be many things, applesauce, apple chips, apple slices, and apple juice! Kids like variety and a trail mix full of their favorite snacks adds enjoyment to their meal.



Select an assortment of your child's favorite snacks, nuts, dried fruit, animal crackers, pretzels and even a few candies, mix all together and store in an airtight container. This mix will last a month if you just use it for lunches. A scoop a day!

Personal touches:



Children on the whole do not eat all of their school lunch. They play with them, trade them and pick at their food while learning to socialize with their peers. To avoid this problem gave your child many choices, but small quantities. Children like their food in small portions such as grapes, blueberries, sliced strawberries, chopped melon, nuts, raisins, and baby carrots, are all excellent additions to any lunch. One day a week let your child "play" with their food. Pack a lunch that they must put together like pizza, nachos or tacos. Let them spread their own peanut butter on crackers, or give them yogurt to dip their fruit. Kids love to dip and sauces now come individually packaged.

Pasta salads are a great way to increase nutrition in lunches. The market is full of fun-shaped whole-wheat pasta that can be enhanced with chunks of cheese, chopped vegetables, fruits and nuts in a simple mayonnaise sauce.

Packing the lunch:

Let your child help pack their own lunch. Let them scoop the snack mix into bags, count the crackers for the peanut butter, select their own carrot sticks and celery. Give them small pieces of fruit to make kabobs on toothpicks! By letting them select their lunch they are more likely to actually eat it.

Smart Choices:

Prepackaged lunches, available in your dairy sections, are 75% fat and sugar, but you can use the same techniques at home to awaken your child's appetite. Use cookie cutters to shape meats, cheese and bread into cute little figures. That is all that is in that little box, cold cuts, crackers, sugar and fat! Cut your child's sugar by giving them milk as a beverage or 100% juice. Read your labels! Avoid fruit rolls that are not 100% fruit! Open prepackaged desert snacks and only give your child one of the cakes.



Fun!

Add some fun at every holiday! Fill your St. Patrick's Day menu with shamrock fun and Valentine's Day should be full of hearts! Now and then place a note of love, thanks or a special treat in their lunch box. Don't put toys in their lunch that distract them from eating. One sticker is so much better than a whole sheet of stickers that will disrupt the entire table. Make their meals fun, tasty and interactive to get them to eat.



Keep food safe — Keep hot food hot and cold food cold!

- Lead by example wash your hands before you prepare lunch and help your child do the same.
- Use a thermos to keep foods hot until it is time to eat.
- Freeze 100% juice boxes, milk, or water they will keep the cold foods cold and will thaw out by the time your child is ready to eat lunch.
- If there are leftovers and no way to refrigerate them, follow one of the mantras of the foodservice industry: "When in doubt, throw it out."
- Plan ahead. It's tempting to revert to packaged junk food or boring lunches when you're short on time. Planning ahead will help you feel better about what your children are eating.
- Trying new foods is important, but a school lunch is not the time to pack foods which have yet to pass your child's taste test. Try new things at home first and keep of list of favorites.

Allow your child to:

- ► Gather the food
- ► Wash fruits and vegetables
- ► Measure, stir, and pour
- ▶ Put food into baggies



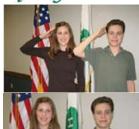
A NEW 4-H YEAR BEGINS OCTOBER 1ST!

By Tory Vanderpool-Mobley, Weston County Interim 4-H Educator



With a new 4-H year starting the first of October and National 4-H Week coming up October 3-9, it is a good idea concentrate on our 4-H Pledge that many of us repeat every month and on special occasions. What do the four H's mean to you? Here is a brief synopsis of what they SHOULD mean to each of us.

I pledge:



...my head to clearer thinking - My head is trained to think plan and reason. Acquire skills and knowledge through projects and group experiences. Learn how to make decisions and solve problems. (Knowledge Development)



...my heart to greater loyalty - Be kind, true and sympathetic. Learn to respect myself and my country, and get along with people. Develop communications and teamwork skills. (Emotional Development)

...my hands to larger service - To be useful, helpful, and skillful. Serve others through community service learning. Show pride in project work and assist others. (Social Development)



...and my health to better living - To resist disease, enjoy life, and make for efficiency. Practice healthy life style choices. Develop self-reliance and a positive self image. (Physical Development)

"I pledge my head to clearer thinking, my heart to greater loyalty, my hands to larger service, and my health to better living, for my club, my community, my country, and my world."

That's the 4-H pledge written in 1927 and it still holds true today. Each of us need to put our head, heart, hands, and health together and let's concentrate on new enrollment and innovative project ideas; there's no telling how far we can go! Parents, leaders, and extension staff must work together in keeping the 4-H program alive and growing in our counties.







Eggs and Foodborne Illness ...

By Trish Peña, Crook and Weston County Cent\$ible Nutrition Educator

The way food is processed and prepared is important because all foods have the ability to carry microorganisms (like bacteria and viruses) or toxins that can cause illness. If microorganisms or toxins are introduced to food or if bacteria are allowed to grow in or on food without being killed (usually by heat) before eating, foodborne illness can result. Common symptoms of foodborne illness include nausea, vomiting, diarrhea, cramps and headache.

The risk of getting a foodborne illness from eggs is very low. Regardless of the recent outbreak. However, the nutrients that make eggs a high-quality food for humans are also a good growth medium for bacteria. In addition to food, bacteria also need moisture, a favorable temperature and time, in order to multiply and increase the risk of illness. In the rare event that an egg contains bacteria, you can reduce the risk by proper chilling and eliminate it by proper cooking. When you handle eggs with care, they pose no greater food-safety risk than any other perishable food.

The inside of an egg was once considered almost sterile. But, over recent years, the bacterium *Salmonella enteritidis (Se)* has been found inside a small number of eggs. Scientists estimate that, on average across the U.S., only 1 of every 20,000 eggs might contain the bacteria. So, the likelihood that an egg might contain Se is extremely small – 0.005% (five one-thousandths of one percent). At this rate, if



you're an average consumer, you might encounter a contaminated egg once every 84 years.

Other types of microorganisms could be deposited along with dirt on the outside of an egg. So, in the U.S., eggshells are washed and sanitized to remove possible hazards. You can further protect yourself and your family by discarding eggs that are unclean, cracked, broken or leaking and making sure you and your family members use good hygiene practices, including properly washing your hands and keeping them clean.

Eggs are not the only source of *Salmonella*. Bacteria are widely found in nature and easily spread. The bacteria can be found in the intestinal tracts of animals, birds, reptiles, insects and people. While the egg itself may not be contaminated when you buy it, it can become contaminated from improper handling, such as with unclean hands, pets, other foods and kitchen equipment, too.

Bacteria, if they are present at all, are most likely to be in the white and will be unable to grow, mostly due to lack of nutrients. As the egg ages, however, the white thins and the yolk membrane weakens. This makes it possible for bacteria to reach the nutrient-dense yolk where they can grow over time if the egg is kept at warm temperatures. But, in a clean, un-cracked, fresh shell egg, internal contamination occurs only rarely.

The egg has many natural, built-in barriers to help prevent bacteria from entering and growing. These protect the egg on its way from the hen to your home. But, although it does help, the porous shell itself is not a foolproof bacterial barrier. For additional safety, government regulations require that eggs be carefully washed with special detergent and sanitized.

Other protective barriers include the shell and yolk membranes and layers of the white which fight bacteria in several ways. The structure of the shell membranes helps prevent the passage of bacteria. The shell membranes also contain *lysozyme*, a substance that helps prevent bacterial infection. The yolk membrane separates the nutrient-rich yolk from the white.

In addition to containing antibacterial compounds such as lysozyme, layers of the white discourage bacterial growth because they are alkaline, bind nutrients bacteria need and/or don't provide nutrients in a form that bacteria can use. The thick white discourages the movement of bacteria. The last layer of white is composed of thick ropey strands which have little of the water that bacteria need, but a high concentration of the white's protective materials. This layer holds the yolk centered in the egg where it receives the maximum protection from all the other layers.



Does a blood spot mean an egg is contaminated? No. You can't see bacteria with the naked eye. Blood or meat spots are occasionally found on an egg yolk and are merely an error on the part of the hen. They're caused by the rupture of a blood vessel on the yolk surface when it's being formed or by a similar accident in the wall of the oviduct. Most eggs with blood spots are detected by electronic spotters and never reach the market. But, even with mass scanners, it's impossible to catch them all. Both chemically and nutritionally, eggs with blood spots are fit to eat. You can remove the spot with the tip of a knife, if you wish.

What will happen if I eat an egg containing Salmonella? If an egg containing Salmonella has been kept refrigerated and someone who uses good hygiene practices serves it to you immediately after proper cooking, you'll simply have a nutritious meal. If the egg has been improperly handled, though, you might experience the foodborne illness called salmonellosis. You could have symptoms of abdominal cramps, diarrhea, nausea, vomiting, chills, fever and/or headache within 6 to 72 hours after eating. The symptoms usually last only a day or two in healthy people but can lead to serious complications for the very young, pregnant women, the elderly, the ill and those with immune system disorders. Anyone who has had salmonellosis may pass along the bacteria for several weeks after recovering, but salmonellosis is seldom fatal. While the risk of getting salmonellosis is very small, there's no need to take chances because cooking kills Salmonella.

If not properly handled, Salmonella bacteria can double every 20 minutes and a single bacterium can multiply into more than a million in 6 hours. But, properly prepared egg recipes served in individual portions and promptly eaten are rarely a problem. You can ensure that your eggs will maintain their high quality and safety by using good hygiene, cooking, refrigeration and handling practices.

The egg industry, the public health community and government agencies have been working diligently to deal with the current Salmonella enteritidis outbreak. Egg industry programs start by keeping breeder flocks free of Salmonella. Ongoing research is dedicated to discovering how Se gets into flocks and how it might be blocked. The industry also uses strict quality-control practices and sanitation procedures all through production, processing and preparation. This includes testing chicks to be sure they're free of Salmonella, bio-security (such as washing and sanitizing not only the eggs, but facilities, too) and other measures. To block Se from multiplying in the egg in the rare event its present, eggs are held at cool temperatures following packing and throughout transportation. Important, too, are industry education programs which encourage food preparers to use safe food-handling practices.

Along with state representatives, the United States Department of Agriculture (USDA) and the Food and Drug Administration (FDA) are developing new national standards with the aim of reducing and eventually eliminating egg-related salmonellosis. The strategies will include a scientific, risk-based, farm-to-table plan covering production, processing, transport, storage, retail handling and delivery. The plan will also include education on the responsibilities of consumers, inspectors and food handlers at all levels. (Material taken from the Fight BAC! food safety campaign.)





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