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Bulbous Bluegrass—Friend or Foe?

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Weedy plants are a chronic problem in the Western United States and many species have been since the early 1900's. These weedy plants are most often introduced to the U.S. from other areas of the world that evolved in a similar climate to that of the U.S. The introduction of weeds might be on purpose or by mistake. Many of the introduced weeds are forbs or broadleaf plants. Luckily, Wyoming is only affected by a handful problem grass species. Bulbous bluegrass (*poa bulbousa* L.) is one grass species that does have negative effects on many range and croplands in Northeast Wyoming.

Biology

Bulbous bluegrass is not a new invader to the U.S. and in fact was introduced on purpose in the early 1900's as a potential turf grass to experiment station in Virginia and Washington state. It was also unintentionally introduced as a contaminant in alfalfa hay. This particular weed is interesting because it is the only grass that has a true bulb. The bulb of the plant looks similar to that of garlic and can be used for starting a new plant if broken apart and moved. Bulbous bluegrass is a cool season short lived perennial grass that enjoys cool wet conditions. From observations I have made for the northeast part of Wyoming I

would agree wet years tend to favor this particular plant. Comparing the growing season of 2012 (a dry year) to that of 2013 (a wet year), bulbous bluegrass seemed to be much more prolific in 2013 than 2012.

This particular plant can be identified early in the season by pulling the plant and looking for the bulbs of the plant. The plant is also distinctive from other natives by the unique seed head it produces. The seed head is often twisted with long awns and purplish coloring. This plant is considered weedy because it is palatable for only a short time in the spring before the seed head is formed and matures. It also has the potential to take over disturbed areas with the right growing conditions.

Bulbous bluegrass is most prevalent in Wyoming rangelands during the early parts of the growing season and then decreases in dominance as the growing season progresses. Unfortunately the early part of the growing season is when many of northeast Wyoming desired perennial native grasses are also growing. This added competitiveness from bulbous bluegrass may decrease the abundance of desired native plants over time and provides a good reason to landowners for control.

Bulbous bluegrass has been evaluated many times for its potential as a turf grass. It was even evaluated as recently as 1997 in the Midwest for turf, but was abandoned due to poor performance. It has also been used as a potential competitor with cheatgrass. This attempt however failed and is considered by many to be a hinder and not a help for decreasing cheatgrass populations. So as it stands, this once potential amazing turf grass is now a major weed for some land managers.



Bulbous bluegrass is the only grass to have a true bulb. The bulbs are viable for starting new plants when removed from the maternal plant.

Control and management

For a problem plant that has been in existence within the United States there should be a long list of control options. Unfortunately there is not a long list of options and there is currently only one herbicide that is labeled for bulbous bluegrass control in rangelands. The current chemical listed for range and pasture control is Sulfometuron + Chlorsulfuron (Landmark XP®).

There is no biological (insects or pathogens) control available for bulbous blue. Targeted grazing could be a promising control option, however this has not been explored yet. There is also the potential of using mechanical tillage for control. Mechanical control can be a little difficult to

use for control. Damaging the aboveground portion of the plant is helpful, but it is important to destroy the bulbs of the plant. Not killing the bulbs and allowing them to move around the field via equipment may increase the population of an infestation. It is recommended that spring tillage is used for control over fall tillage when bulbs have fully matured. Planting a competitive crop of desired plants is also not a bad idea.

So what is Extension doing to fight this problem? With the help of Dr. Brian Meador, University of Wyoming Professor and Weed Specialist, a herbicide trail has been placed near Oshoto, WY to evaluate potential herbicide control options. The study will be completed in the fall of 2014. Initial results have not shown a lot of promise, but sometimes herbicides do not have their greatest effect until year two after application. Stay tuned for results related to this problem grass. If you are having issues with this weed please contact your local Extension office for help.



Picture of a mature seed head of bulbous bluegrass . Notice the purplish coloring on the seeds and unique shape.

SUCCESSION IN THE FAMILY BUSINESS

by

Bill Taylor

Area Community Development Educator

Business continuity requires generation to generation transition. Timeliness in the transition is essential. However, the parents may be unwilling to give up control and authority at the time the next generation wants it or should have it. On the other hand, the next generation may not be ready for their responsibilities when they have to assume them.



Want to test the strength of your succession plan? Ask yourself: Is your son or daughter making decisions in the ranch/farm business that you don't agree with?

Are they wanting to buy or sell land, change crops or products, emphasize different enterprises, or purchase different equipment or seed stock? Often the next generation is listening to new information or bas-

ing their decisions on different variables or perspectives. So did you when you started.

You were proud enough of them to include them in the business when they were young. Do you trust them enough now to begin making them a manager, or are they just cheap labor?

When you know it's going to be your business one day, you want to build it the way you want.

One young farmer stated, "I still ask Dad for advice pretty much every day on certain things. But at the end of the day, I'm making the decisions. I have friends who don't have that and it's frustrating for them."

It's a good sign when young successors have different views on how to run the ranch/farm business – and that their view is prevailing.

The idea that you can have a 22-year-old come straight out of university and do your strategic planning is probably not practical. But you should have a reasonable time frame that starts with the young person making tactical, or day-to-day operational decisions. Then he or she should gradually move into management decisions and then finally into strategic planning, those long-term types of decisions.

Take enough time for a proper transition, but be sure it *is* a transition, not just a continuation of the way it was when the kids were kids.

If your child has a chance to work off the ranch or farm for a time they may be able to begin learning managerial skills there before returning to the ranch or farm. If they have learned decision making and management in any other business they should be able to transfer many of those basic skills to the home operation. Don't waste that valuable experience.



Starting your son or daughter or other successor in the decision-making process will smooth the process of succession transition. Many ranch/farm owners refuse to place that degree of trust in their own children! Allowing them to make decisions, also means allowing them to make mistakes.

The underlying foundation of this entire process needs to be **communication**. Are you discussing the issues and problems in family or management meetings, or are you acting like the dictator, handing down your edicts? No system grows or makes smooth transitions without communication.

If your successors are in their 40's and 50's and you still haven't worked out and implemented a succession plan, you are running late. By that age they should be the managers and working on a succession plan for their children.

Another succession test question: Which member of the family has the check book? Businesses are run on the golden rule: He who has the gold makes the rules. So, if Dad is writing the checks, then who is running the business?

This is a free country. These are your assets and you can do whatever you want with them. But don't tell your child they're going to be your successor and then say, "I'm never going to retire." That's not appointing a successor. That's selecting an heir. Be honest and tell your successor the truth. And the truth, in that case, is that, if the successor wants to operate his or her own ranch or farm business, they're going to have to go someplace else do it. It's never going to happen on the family operation.

For more information on succession planning, visit eRuralFamilies.org.



ALL ABOUT SLOW COOKING

Vicki Hayman, NE Area Nutrition and Food Safety Educator

University of Wyoming Extension

Opening the front door on a cold evening and being greeted by the inviting smells of a home-cooked meal from a slow cooker can be a cook's dream come true! Using a slow cooker is very easy; just add the food, cover, turn on the heat and cook all day.

Slow cooker appliances cook foods slowly at a lower temperature, so vitamins and minerals are retained, tougher cuts of meat are tenderized and meats shrink less. Here are some of the greatest advantages of slow cooking:

- The extended cooking times allow better distribution of flavors in many recipes.
- Tougher cuts of meats (chuck, flank, brisket, rump, and round) and poultry are tenderized through the long cooking process. The slow cooker is a good choice for cooking wild game dishes.
- The slow cooker frees the oven and stove top for other uses, and should definitely be considered as an option for large gatherings or holiday meals.
- The lower temperatures lessen the chance of scorching of foods which tend to stick to the bottom of a pan and burn easily in an oven.
- Convenience! A slow cooker can usually be left unattended all day for many recipes.

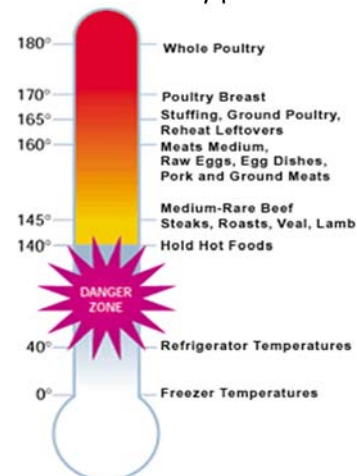
To qualify as a safe slow cooker, the appliance must be able to cook slowly enough for unattended cooking, yet fast enough to keep food above the danger zone temperature of 135 °F. The LOW setting is about 200 °F, and the HIGH setting is

about 300 °F. WARM is a holding temperature once the food has been cooked.

When you purchase a new slow cooker, use it the first few times, on HIGH and on LOW, before leaving it unattended. Also, remember to place the cooker on a cookie sheet, granite countertop, the stovetop, or a similar surface. The bottom can get quite hot.

To determine if a slow cooker will heat to a safe temperature:

1. Fill cooker with 2 quarts of water.
2. Heat on low for eight hours or desired cooking time.
3. Check the water temperature with an accurate thermometer quickly because the temperature drops 10 to 15 degrees when the lid is removed.
4. The temperature of the water should be at least 185 °F. Temperatures above this would indicate that a product cooked for eight hours without stirring would be overdone. Temperatures below this may indicate the cooker does not heat food high enough or fast enough to avoid potential food safety problems.



A slow cooker is a safe process for cooking foods as long as correct procedures are followed.

- Always start with a clean slow cooker, clean utensils, a clean work area and clean hands.
- Keep perishable foods refrigerated until preparation time. If you cut up meat and vegetables in advance, store them separately in the refrigerator.
- Never put frozen foods in a slow cooker. They take much too long to heat up and stay in the temperature danger zone (between 40 and 135°F) for longer than the safe 2-hour limit.
- Cut food into smaller pieces to help heat the food more thoroughly.
- Vegetables cook more slowly than meats in the moist heat of the slow cooker so place them in the bottom of the slow cooker.
- Fill your slow cooker no less than half full and no more than two-thirds full. Place vegetables in first on the bottom and around the sides. Then add the meat and cover with liquid such as broth, water, or sauce.
- The U.S.D.A. recommends cooking on HIGH heat for the first hour to quickly bring the temperature up to 135 °F. Then turn the dial to LOW and finish cooking. If prep time is limited, it is safe to cook foods on low for the entire time.
- One hour on HIGH is equal to two hours on LOW.
- Keep the lid on the slow cooker, removing it only to stir the food or check the temperature. Every time the lid is removed, heat escapes and that lowers the temperature of the food in the slow cooker.

Liquid, such as broth, is essential for slow cooking because less tender meats have greater amounts of collagen than tender ones. Collagen, a connective tissue, helps hold the muscle fibers in meat together. When cooked in the presence of moisture, collagen dissolves into gelatin, which allows the meat fibers to separate more easily. This is the essence of tenderizing tough cuts of meat.

While collagen softens in moist heat, muscle fibers firm. The higher the cooking temperature, the tougher the muscle fibers become, and the more they shrink in both length and width. To keep meat tender yet safe during cooking, you must maintain an important balance. Cooking temperatures must be high enough to kill microorganisms, yet not so high that the meat toughens. Use a thermometer to check the temperature of the surrounding liquid and keep it at a simmer of 180-190 °F.

- For best results, ground meats must be cooked in a skillet before cooking in the slow cooker.
- Large pieces of meat can be browned before cooking in the slow cooker, but this step isn't necessary. Most meats require 8 hours of cooking on LOW. Lean cuts of meat have less fat, which makes them more suited to slow cooker cooking. Moist, long cooking times result in tender meats.
- Remove skin from poultry, and trim excess fat from meats. Fats will melt with long cooking times, and will add an unpleasant texture to the finished dish. Fatty foods will also cook too quickly.
- Seafood and fish should be added during the last hour of cooking time, or it will overcook and have a rubbery texture.



- Beans used in soups don't need to be soaked before using if you are going to cook the soup on high for 3-4 hours before being turned down to low. Sugar and foods high in acid, such as tomatoes, will have a hardening effect on beans. Therefore, always soften the beans thoroughly before using in such recipes as chili or baked beans.
- Pasta and rice can be cooked in the slow cooker. Pasta needs lots of liquid to cook properly, and should be added during the last hour of cooking time, depending on the consistency of doneness preferred. Pasta will become very glutinous if added to a slow cooker when dry. Its best to parboil pasta to the tender but not completely cooked stage, then add.
- Rice can be more difficult to cook. Use brown or wild rice for better results. Make sure there is enough liquid in the recipe so the rice becomes tender.
- Potatoes can be prevented from darkening by rinsing in one cup of water and ½ teaspoon cream of tartar.
- Add tender vegetables like tomatoes, mushrooms, and zucchini during the last 45 minutes of cooking time so they don't overcook.
- Dairy products should be added during the last 30 minutes of cooking time, unless the recipes states otherwise.
 - Natural cheeses tend to break down, so should be replaced with process cheeses or other cheese made to melt nicely. Natural cheeses can be added near the end of cooking time.
 - Milk will curdle over long cooking times, but you can substitute evaporated milk or stir in heavy cream or sour cream near the end of cooking.
- Fresh herbs are recommended. Use whole herbs and spices instead of crushed or ground forms for better flavor. Add them in the last 30 minutes of cooking.
 - Pepper, cayenne pepper and Tabasco sauce tend to become bitter if cooked for long periods of time. Use small amounts and add toward the end of the cooking time.
- Liquids do not boil away in the slow cooker, so if making a recipe that wasn't specifically developed for the slow cooker, reduce the liquid by ½ to ⅓ unless you are cooking rice, pasta, or making soup.
- When thickening sauces near the end of cooking time, turn the heat setting to high to speed the process. Taste the liquid first, though; if it lacks flavor, it may be best to reduce by simmering several minutes uncovered.
- You can make cakes and desserts in the slow cooker! Use a small round rack or vegetable steamer to lift the cake pan off the bottom of the slow cooker so heat circulates evenly around the pan. A 5-quart slow cooker will hold an 8" or 9" cake pan or spring form pan.
- If you live at a high altitude, you may need to increase cooking times.



Many recipes can be converted to cooking in the slow cooker. Reduce the amount of liquid a recipe calls for, since liquids do not evaporate during slow cooker cooking. However, if you are cooking rice, beans, or pasta, don't reduce the liquid called for in the recipe. You generally need twice as much liquid as product to cook these ingredients. Here are basic conversion times:

- If conventional time is 15 to 30 minutes, then cooking time on low should be 4 to 6 hours.
- If conventional time is 35 to 45 minutes, cooking time on low should be 6 to 8 hours.
- If conventional time is 50 minutes to 3 hours, cooking time on low should be 8 to 16 hours.

If you use the slow cooker to keep foods warm, heat the food to steaming before placing it into the preheated slow cooker.

Slow cookers are a great time saver when it comes to preparing delicious and hearty meals. Where you don't want to spend your time is cleaning up after your meals. Here's a few tips to protect your slow cookers cooking surface and easy clean up tips.

- **Use a nonstick spray** – Even though most slow cookers already have a non-stick coating on the crockery insert, it's still important to spray it with a non stick spray before cooking. Otherwise you'll find you'll have to soak and scrub the food off after slow cooking your food.
- **Use spoons that are plastic or wood** – If you stir or remove food with a metal spoon, you'll damage the non stick surface and have a real tough time cleaning the insert in the future.
- **Don't preheat you're slow cooker** – Preheating may cause food to stick and burn to the surface of the insert. Only turn your slow cooker on after it's filled with ingredients. If you do want to preheat, you can first fill up the crockery insert with water for an hour. Then add your food.
- **Use slow cooker liner bags** – These bags look like a plastic bag but are really made from heat resistant nylon. You'll find them in the Ziploc Bag aisle of your local grocery store. You simply place

in the liner of your slow cooker before you start cooking. After cooking, spoon out your ingredients into a food container and slowly take out the liner. It may not be best to use them for recipes that call for cooking times of 8 – 10 hours.

- **Handle stuck food properly** – Every now and again, no matter how much precaution you take, you'll find your food sticking. This is when having a slow cooker with a removable crockery insert comes in handy. Simply let the appliance cool down, bring your insert to the sink and give it a 15 -20 minute soak in hot soapy water. You can then scrub it with a nylon net pad, plastic sponge or cloth. Do not use a harsh abrasive cleaner, stainless steel soap pad or metallic scoring pad. Rinse well in hot water and dry. If you're food is really stuck on, fill the slow cooker with water and put it on high for an hour.
- **Remove mineral stains with vinegar** – Fill your slow cooker with 1 cup white vinegar and 3/4 full with hot water. Cover and cook on high for 2 hours. Then let the crockpot cool and soak and clean as described above.
- **Remove water marks with vegetable oil** – If you have those ugly water marks on your glazed crockery insert, simply rub the surface with vegetable oil and let stand for 2-3 hours. Then fill with hot soapy water, rub the surface, and scrub with a nylon net pad. Rinse and dry well.

The slow cooker is one of the best time saving appliances in the kitchen. It's great for beginning cooks because all you have to do is fill it and turn it on. Hours later, you come home to a house filled with wonderful smells and dinner ready for the table. And once you become an expert at using this appliance, the time you spend in the kitchen will be greatly reduced!



Why Beef Cows Need a Protein Supplement in Winter!

Blaine Horn, NE Area Range & Forage Management Educator

With winter nearly upon us the regions beef cows are in either their second or third trimester of pregnancy. Thus their nutrient needs are increasing daily as they approach calving. For the cow to birth a healthy calf and then be able to rebreed in a timely manner her nutritional requirements need to be satisfied. This often means some type of supplementation, especially if the cows are grazing on rangeland.

What do a beef cow's nutritional needs consist of?

- Water
- Energy — often referred to as Total Digestible Nutrients or TDN
- Protein, and
- Minerals, both macro and micro

What type of digestive system does a beef cow have?

If you read my column in the last issue of Northeast Extension Connection (Vol. 10, No. 3) you know the answer to this question. If you are a beef producer you most likely know as well. They have a ruminant digestive system. As a result in order for their dietary needs to be met the nutrient needs of the rumen bugs have to be satisfied, i.e., you feed the bugs to feed the cow.

So, what do the rumen bugs require?

- Water
- Energy
- Protein, and
- Minerals, both macro and micro

With regard to energy nutritionists look at how much Net Energy maintenance (NEm) a feed contains not its %TDN content. They also look at not only how much protein the feed contains but how much of it is degradable, referred to as degradable intake protein (DIP).

Why are a feed's NEm and DIP contents of interest to beef cattle nutritionists?

This was also discussed in the last issue of Northeast Extension Connection so in a nutshell

- For every Mcal NEm a feed contains the rumen bugs require 0.1 pound of DIP.
- This enables the bugs to degrade the available energy in the feed to volatile fatty acids the animal absorbs and uses as its energy source.

For example:

If a feed contains 0.6 Mcal NEm/lb of dry matter the rumen bugs will need 0.06 lb of DIP (0.6 Mcal x 0.1 lb).

If the feed's protein content is 10% and 70% of it is degradable there would be 0.07 lb of DIP/lb of dry matter (0.1 lb x 0.7).

Thus, the rumen bugs' protein needs would be satisfied based on the amount of NEm available.

OK, the rumen bugs' nutrient needs are satisfied but what about the cow's?

The Mcal NEm a beef cow needs to just maintain herself is based on her metabolic weight which is her empty body weight to the 0.75 power. Empty body weight (EBW) is 85% of her shrunk body weight (e.g. overnight without feed and water). If your cull cows weigh an average of 1250 pounds at the sale barn which in most cases would be a shrunk weight their EBW would be 1063 pounds (1250 lb x 0.85) and their metabolic weight would be 186 lb (1063^{0.75}).

The Mcal NEm they would need is determined by multiplying 186 lb by the constant 0.0426 which in this case would equal 7.9 Mcal/day. However, they also need Mcal NEm for the calves growing in their wombs. The amount needed is based on their month of pregnancy and resultant birth weight of their calves. If the average calf birth

weight is 90 lb and the cows are in their 7th month of gestation they would need an additional 1.6 Mcal NEm/day. Obviously, their daily NEm requirement for gestation will increase as their pregnancy progresses. For the 8th and 9th months of gestation they would need 2.8 and 4.6 Mcal NEm/day, respectively.

Note: Calculations to determine Mcal NEm for gestation are daunting so they will not be provided here but anyone interested in what they might be for their herd can contact me at 307-684-7522 or bhorn@uwyo.edu.

Total daily Mcal NEm these cows need would be 9.5, 10.7, and 12.3 for their 7th, 8th, and 9th months of gestation, respectively. A disclaimer here is that these amounts do not take into consideration how much more NEm they might need for cold weather and/or for traversing hilly terrain if grazing native rangeland.

Now that the minimum NEm needs of these cows during their 7th–9th months of gestation has been determined what about their protein needs? For every Mcal NEm for maintenance they require they need 0.08 lb of protein. If these cows need 7.9 Mcal/day for maintenance they would need 0.63 lb of protein (7.9 Mcal x 0.08 lb). For gestation the amount needed for every Mcal NEm is slightly more at 0.1 lb. Thus, for the 7th–9th months of gestation the cows would need 0.16, 0.28, and 0.46 lb of protein, respectively, for a total daily amount of 0.79, 0.91, and 1.09 lb.

If the cows are grazing dormant native range are they obtaining enough energy and protein to meet their needs?

Dormant native range grass contains on average 0.5 Mcal NEm/lb and 4% protein with 65% of it as DIP. Gestating beef cows will eat 1.5% of their shrunk body weight in low quality forage. So these 1250 lb cows would consume 19 lb of this forage each day resulting in a consumption of 9.5 Mcal NEm (19 lb x 0.5) and 0.76 lb protein (19 lb x 0.04) with 0.49 lb of it as DIP (0.76 lb x 0.65). These amounts would possibly satisfy the cows' nutrient needs during their 7th month of gestation but not afterwards.

However, what about the rumen bugs' protein needs; are they satisfied? If not, the cow might not be able to

consume even 19 lb/day of the forage. If the cows consume 9.5 Mcal NEm they need to ingest at least 0.95 lb of DIP (9.5 Mcal x 0.1 lb) but as shown above they will consume only about half a pound. Thus, the cows should be provided a protein supplement that will furnish at least another half pound of DIP.

A 38% protein range cake with 60% of it as DIP and a NEm content of 0.85 Mcal/lb might be a good choice for these cows. For every pound of this cake the cows eat they will obtain 0.23 lb of DIP (0.38 x 0.6) and 0.85 Mcal NEm. The rumen bugs will need 0.085 lb of the DIP to degrade the 0.85 Mcal NEm (0.85 x 0.1) leaving 0.145 lb of DIP to offset the shortfall in the range forage (0.23–0.085). The pounds of cake needed to satisfy the rumen bugs DIP needs would be 3.4 (0.49 ÷ 0.145).

The total amounts of dry matter, NEm, protein, and DIP the cows would consume from the range forage and the protein supplement would be 22.4 lb (19 + 3.4), 12.4 Mcal (9.5 + (3.4 x 0.85)), 2.05 lb (0.76 + (3.4 x 0.38)), and 1.26 lb (0.49 + (3.4 x 0.38 x 0.6)), respectively.

Provision of a protein supplement will actually allow the cows to consume up to 1.8% of their body weight in low quality forage. Based on this the cows would consume 22.5 lb/day of the range forage obtaining 11.25 Mcal NEm, 0.9 lb of protein with 0.6 lb of it as DIP. If they consume 3.5 lb/day of the protein supplement they would obtain 26 lb of dry matter containing 14 Mcal NEm, 2.2 lb of protein with 1.4 lb of it as DIP. These amounts would satisfy the cows' energy and protein needs, including amounts needed for cold weather and travel, and the DIP needs of the rumen bugs'.

This is why it is important to provide a protein supplement when cows are grazing low quality forage but it needs to be the right one.



Holiday Giving

With the holiday season upon us it is a good time to consider the gifts we will be sharing this year. Though I suppose my interests make me slightly biased I have a strong appreciation for the simple gift of food. A nourishing gift from the heart can be a great way to show someone how much you care.

There are many ways to share a gift of food and with some creativity (and a bit of work) food gifts can be put together on a pretty tight budget. Here are just a few options:

Invite a friend, neighbor, or someone in need to share a meal with you. This can be at a restaurant, at your home, or theirs. For an even greater gift prepare enough food to feed your recipient for at least one more meal as well.

Bake a loaf of whole grain bread. There is no shortage of sweet treats during the holiday season--to make your gift stand out share something that is nutritious *and* delicious!

Share friendship soup-in-a-jar (or any other food that may fit). Not interested in baking or cooking yourself? Just put the ingredients together and they can do the work (just don't forget to include the recipe)!

Volunteer your time. Food banks, soup kitchens, and other service organizations are always in need of good volunteers. Even if you're not a great cook there are many ways you can lend a hand to help their cause.

Give your compassion. Share holiday companionship with those in need. Ask your local hospice, children's hospital, or nursing home how you can lend a hand during mealtime.

While the holidays are great time for sharing don't forget that food can be a welcome gift any time of the year. If you're interested in some great advice on gifts of food visit www.youtube.com and search: *last minute holiday gifts (from your kitchen)*. The first choice will be a short clip with some wonderful tips from our nutrition educator (and Registered Dietitian) in Lander, WY, Diane Saenz.

For this holiday season, and those to come, remember that gifts from the heart are more powerful than fancy packages and large checks. Note: this column was based upon an article entitled 'Sharing Food a Holiday Gesture' by Dayle Hayes, a Registered Dietitian in Billings, MT. *Kentz Willis, M.S., is the University of Wyoming Extension Educator in Nutrition and Food Safety for Northeast Wyoming. He can be reached via email at kwillis3@uwyo.edu.*

Curb Side Appeal

By Scott Hininger

UW Extension Educator Based in Sheridan County

What to do with that little two to four foot wide strip of ground between the sidewalk and the curb of the street? Well generally, if one were to look around most towns these areas too often become weed strips. One other mistake some people make is they try and plant large trees in these areas and 20 years down the road they are breaking up the sidewalk, street or intruding into the right of way in the street.

There are several solutions to this problem. My favorite is to concrete these areas with colored concrete. The next low maintenance solution would be to add some kind of rock mulch to this area. Although, over time, dirt will blow in and weeds will once again need to be dealt with.

The traditional method is to seed a cool season grass such as Kentucky Blue grass to these areas. This will work if you can get water to these areas. Generally, what I see is water being wasted by spraying on the sidewalk or the street. These are very inefficient areas to water, and in my mind should be planted to something that requires minimal if at all watering.

If grass is desired then I would suggest as a cool season grass "Sodar" Stream Bank wheatgrass. This is the most drought resistant native cool season grass available. Next I would recom-

mend a warm season grass either Buffalo grass or Blue Grama grass. Once established any of these grasses should do well in Wyoming. The warm season grass will only be green during the summer.

The next alternative is to make a native or drought tolerant planting of perennials or shrubs or ornamental grasses, or some combination. Also by adding some large rocks or other items will add to the landscaping design. Keep in mind we are in the west so keep a western theme.



An example of quality curb side landscaping .

Some plants to consider would include: dianthus, penstemons, helianthemums, turkish speedwell, grape hyacinth, common yarrow, littleleaf pussytoes, white and purple prairieclover, sulphur-flower buckwheat, blanket flower, (next page)

dotted gayfeather, Lewis flax, wildbergamot beebalm, pricklypear, beardtongue, wooly cinquefoil, prairie coneflower, scarlet globemallow, American vetch, soapweed yucca, Sea Foam Artemisia, and Orange Carpet Hummingbird trumpet. These are samples and there are many varieties and colors to choose from, but these are a good starting point.

For shrubs, consider prostate evergreens and junipers, sagebrush, winterfat, fourwing saltbush, shrubby cinquefoil, rabbit brush, blue velvet honeysuckle, Cheyenne Mockorange, golden currant, skunkbush sumac, hairy broom, apache plume, potentilla, Comanche gooseberry. Of course this is not an inclusive list either but it is another good starting point.



Skunkbrush sumac

For soil preparation consider adding plenty of organic matter and maybe some sand so the soil drains well. Next, I would add five pounds of phosphorus per 1,000 square feet or take a soil sample

and use those results. Most Wyoming soils have a high ph and are lacking in phosphorus.

Pick a design with height and color in mind and allow areas for pedestrians to get out of vehicles. The first couple of years these areas will need some supplemental watering but after that if you have used a drought tolerant complement of plants they should be good to go on their own. However, I would still supplement water them once in July and August and again in late fall.

All of these suggestions except concrete do require some maintenance each year, however the water savings and lower maintenance schedule in the long run will really pay off and you will have a much more enjoyable landscape area.

THE 4-H STUDY OF POSITIVE YOUTH DEVELOPMENT

2012 Summary of Findings from Wave 8



RESEARCH SHOWS:

4-H Helps Young People Excel Beyond Their Peers

For a decade, preeminent youth development scholar, Dr. Richard Lerner, and the team at the Institute for Applied Research in Youth Development at Tufts University have been working with faculty at land-grant universities to conduct The 4-H Study of Positive Youth Development.

This in-depth, longitudinal study has discovered that the structured learning, encouragement and adult mentoring that young people receive through their participation in 4-H plays a vital role in helping them achieve future life successes.

4-H YOUTH MAKE MORE HEALTHY CHOICES

Young people in 4-H are:

- 3.4 times more likely to delay sexual intercourse by Grade 12
- Shown to have had significantly lower drug, alcohol and cigarette use than their peers
- 2.3 times more likely to exercise and be physically active

4-H'ERS EXCEL IN SCHOOL AND THE SCIENCES

Young people in 4-H:

- Report better grades, higher levels of academic competence, and an elevated level of engagement at school
- Are nearly two times more likely to plan to go to college
- Are more likely to pursue future courses or a career in science, engineering, or computer technology

The study also finds that girls in 4-H are more than twice as likely to participate in science, engineering, or computer technology programs than their peers.

YOUNG PEOPLE IN 4-H ARE COMMITTED TO IMPROVING THEIR COMMUNITIES

A notable trend of the study indicates that 4-H youth are 3.4 times more likely to actively contribute to their communities when compared with youth who do not participate in 4-H.

METHODOLOGY:

The 4-H Study of Positive Youth Development is a longitudinal study that began in 2002, surveying more than 7,000 adolescents from diverse backgrounds across 44 U.S. states. The study is made possible by the contributions of our nation's land-grant universities and National 4-H Council.

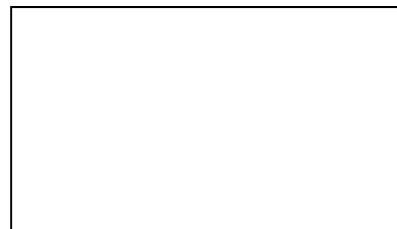


To learn more about The 4-H Study of Positive Youth Development, visit www.4-h.org/about/youth-development-research

4-H IS THE YOUTH DEVELOPMENT PROGRAM OF OUR NATION'S COOPERATIVE EXTENSION SYSTEM.

Crook County Extension

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Northeast Extension Connection

***A quarterly report from Campbell, Crook, Johnson, Sheridan
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