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University of Wyoming Cooperative Extension Service in Campbell, Crook,
Johnson, Sheridan and Weston Counties Combining to Serve NE Wyoming

UNIVERSITY
OF WYOMING



Inside This Issue...

Broom Snakeweed	Pg. 2
How Bad Is Your Burn?	Pg. 4
Family Meals –A Must!	Pg. 5
Cold Temperatures: Heavier Calves	Pg. 6
Top 10 NP Governance Mistakes	Pg. 7
Strengthening Communities Through Youth-Adult Partnerships	Pg.9
Cholesterol	Pg. 10
Plant Gems of WY	Pg. 11

Upcoming Events to Note

The 2010 Rancher Roundtable Series continues with the following dates and workshops:



Tuesday March 9; 6 pm, Sheridan College/ Ag room 131, Sheridan;
Haygrowers Establishments and Maintenance

Thursday March 11; 1 pm, Newcastle USDA Service Center, Hay Roundtable

Tuesday March 23; 5 pm, Campbell County Board Training, Gillette

Wednesday March 24; 1 pm, Campbell County Board Training, Gillette

Thursday March 25; 10 am, Newcastle USDA Service Center, Grasshopper Control Workshop

Vicki Hayman will be presenting the following Food Classes:

Pizza with Pizzazz! Cost: \$10

Thursday March 18; 5:30-8:30 pm, Newcastle High School Room #223 FCS kitchens

The Secret IS in the Sauce cost: \$20

Thursday March 25; 5:30-8:00 pm, Campbell Tech Building Kitchen

Monday March 29; 5:30-8:00 pm, Sundance Community Room Kitchen

Brunch: The Perfect Weekend Treat cost: \$20

Tuesday April 13; 5:30-8:00 pm, Campbell Tech Building Kitchen

Wednesday April 28; 5:30-8:00 pm, Sundance Community Room Kitchens

Puff Pastry cost: \$10

Monday April 19; 5:30-8:30 pm, Newcastle High School Room #223 FCS kitchens



Wyoming 4-H Judges Certification Workshop

Interested in becoming a 4-H judge, increasing your judging opportunities, or learning more about 4-H to become a better judge? If so, attend a Judges Certification Training to become a certified judge for 4-H Static Exhibits. If you attend a workshop you will become part of a list for quality judges that recognize the goal in 4-H as youth development. Each workshop will include a training related to youth development, awards and experiential learning as well as a mock interview with youth. Registration costs \$20 (lunch included) before April 1st or \$30 after that date. A workshop is going to be held in **Gillette on April 24th**. Workshops are also being held in Casper, Kemmerer, Worland and Torrington during April and May if you are unable to make that training. Contact your local Extension Office for more information or register.



Broom Snakeweed: A Nasty Native

By Gene Gade

University Extension Educator—Northeast Area

From the viewpoint of range livestock production, the important facts about Broom Snakeweed are that it:

- 1) rapidly invades ranges depleted by overgrazing or drought,
- 2) is unpalatable and toxic,
- 3) is hard to get rid of through grazing management alone once it becomes dominant.

Despite its name, there is no evidence I'm aware of that Broom Snakeweed, is particularly associated serpents. In fact, if the old phrase "snake in the grass" is taken literally, a pasture dominated by "snakeweed" wouldn't be a good place to look for slithering vertebrates, 'cause there's usually not much grass where Broom Snakeweed is abundant! There are, however, several references reporting that Indians collected Snakeweed's straw-like stems, bound them into bunches and used them as brooms. Indians also had a dozen or so medicinal and other uses for Snakeweed.

The Nature of the Critter

Broom Snakeweed is what some plant people call a "half-shrub," because its stems are not completely woody and they die back partially each winter. Snakeweed is bushy and is capable of growing up to three feet in height. Usually though, it's about half that tall. In late summer and fall each plant produces hundreds of small, bright-yellow flowers. The leaves contain a witches brew of fragrant and nasty-tasting chemicals that give the plant one of its other common names..."turpentine plant."

Snakeweed is also highly adaptable. It will grow on almost any soil type and is found in most semi-arid ecosystems of the West, including grassland, sagebrush and Ponderosa Pine communities.

When it forms dense stands, Snakeweed is highly competitive with perennial grasses and



Broom snakeweed is capable of completely taking over degraded ranges. Cheatgrass is the only other plant visible in this pasture. Snakeweed is also toxic to livestock, among other things causing abortion problems similar to those induced by Ponderosa Pine needles.

dramatically reduces pasture forage production. Often livestock simply avoid areas of heavy Snake-weed infestation.

Included in Snakeweed's chemical cocktail are classes of compounds known as saponins, turpenes and flavinoids. Snakeweed also concentrates the element Selenium. All of these are toxic, even fatal, if consumed in sufficient quantity. The most serious problems associated with Snakeweed consumption are reproductive symptoms very similar to those in a scourge of this region, pine needle abortion...i.e. late-gestation abortion, premature weak calves, retained placenta, swollen udders, etc. There are other potential issues with digestive system, kidneys and liver damage.

Good News and Bad News

Among the good news is the fact that Snake-weed tastes so bad and makes animals so sick that domestic livestock will avoid it if other forages are available. Also, Snakeweed is not a particularly long-lived plant and doesn't have the extremely

deep root system characteristic of a lot of weeds. Some native mammals including antelope, deer, rabbits and rodents seem able to eat some Snakeweed without ill effects. Sheep and goats sometimes nibble Snakeweed, especially new spring growth, but all classes of domestic animals are poisoned if they consume enough.

Drought and Fire Response

How Snakeweed responds to drought or fire depends on several factors. Often, if the perennial grasses are overstressed during a drought, Snakeweed will take over the pasture. However, if the drought is severe and prolonged, even Snakeweed may die out.

Likewise with fire. The current issue of the *Rangeland Ecology and Management* journal reports research indicating that, if a sagebrush-perennial grass community is burned, the perennial grass will take over dominance and Snake-weed will not invade. However, if you burn a sagebrush stand that doesn't have the perennial

grass understory, you're likely to get snakeweed and cheatgrass after the fire.

Management and Control

The most effective way to control Broom Snake-weed is simply keep perennial grasses healthy through good grazing management. However, if disturbance occurs and Snakeweed takes over, reversal of that trend via grazing management may not be possible...at least not quickly.

Excellent herbicide control can be achieved using metsulfuron (a.k.a. Ally or Escort) at very low rates...0.5 to 2 oz. per acre. Picloram (Tordon) or dicamba (Clarity) also provide control but require much more active ingredient. If perennial grasses are still present and there is enough precipitation, they will usually regain dominance, vigor and production quickly. Again, if only cheatgrass is present with Snakeweed, cheatgrass will take over.

Biocontrol insects have shown great promise in controlling Snakeweed on the southern Plains and may be spreading this way!

Snakeweed's Lewis and Clark Connection

Broom Snakeweed is not one of those "exotic" life forms that hitched a ride to the New World from Eurasia, Timbuktu or Mars. No sir, it's a native...a genuine, home-grown, North American nuisance. In fact, Broom Snakeweed was one of the several hundred plants collected by Meriwether Lewis on his famous expedition across the continent. President Thomas Jefferson instructed Lewis



Lewis collected this example of Camus, an important food plant for western Indians. It's now in the Academy of Natural Sciences in Philadelphia.

to observe and record "...the dates at which particular plants put forth their flower, or leaf..." The explorer collected and pressed Snakeweed, replete with its bright yellow blossoms in North Dakota in September 1804. He sent it down the Missouri River to Thomas Jefferson with other specimens the following spring. Lewis's cryptic note attached to the specimen (with his usual quaint and creative spelling), read, "...with the growth of high and bear praries which produce little grass, generally mineral with the earth." I think that means that snakeweed, even then, was observed to grow on nearly bare soil where grass didn't grow well or had been removed. Modern botanists and ecologists would agree with Lewis's assessment.



Following Jefferson's instruction, Lewis collected many plant and animal species previously unknown to science and many of his specimens still exist. He found this Lupine along the Clearwater River in northern Idaho in 1806. It's now in the Royal Botanic Garden collection in England.

HOW BAD IS YOUR BURN?

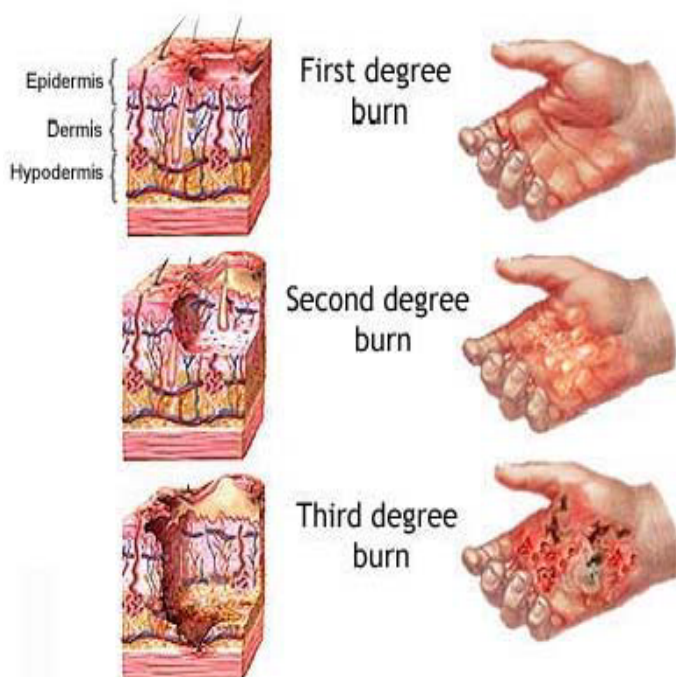
By Vicki Hayman, University Nutrition and Food Safety Educator - Weston County

If you, or a household member, are burned at home and you need to apply first aid, read on to learn more.

To distinguish (or treat) a minor burn from a serious burn, you must determine the extent of the damage to body tissues. The three burn classifications will help determine emergency care.

First-degree burn: The least serious burns are those in which only the outer layer of skin is burned, but not all the way through. The skin is usually red, with swelling, and pain may be present. There is no blistering with first-degree burns. These burns usually heal within 3-6 days without permanent scarring. Treat a first-degree burn as a minor burn unless it involves substantial portions of the hands, feet, face, groin or buttocks, or a major joint, which requires emergency medical attention.

Second-degree burn: When the first layer of skin has been burned through and the second layer of skin (dermis) also is burned, the injury is called a second-degree burn. Blisters develop and the skin takes on an intensely reddened, splotchy appearance. Second-degree burns produce severe pain and swelling. If the second degree burn is no larger than 3 inches in diameter, treat it as a minor burn. If the burned area is larger, treat it as a major burn and get medical help right away.



Third-degree burn: The most severe of burns extend into deeper tissues, causing white or blackened, charred skin that may be numb. Difficulty inhaling and exhaling, carbon monoxide poisoning, or other toxic effects may occur if smoke inhalation accompanies the burn.

Minor burns usually heal without further treatment. They may heal with pigment changes, meaning the healed area may be a different color from the surrounding skin. Watch for signs of infection, such as increased pain, redness, fever, swelling or oozing. If infection develops, seek medical help. Avoid reinjuring or tanning if the burns are less than a year old - doing so may cause more extensive pigmentation changes. Burns can be caused by dry heat (like fire), wet heat (steam or hot liquids), radiation, friction, heated objects, the sun, electricity, or chemicals. Thermal burns are the most common. Thermal burns occur when hot metals, scalding liquids, steam, or flames come in contact with your skin.

By giving immediate first aid before professional medical help arrives, you can help lessen the severity of the burn. Children under age 4 and adults over age 60 have a higher chance of complications and death from severe burns. **For minor burns**, including first-degree burns and second-degree burns limited to an area no larger than 3 inches in diameter, take the following action:

1. If the skin is unbroken, run cool water over the area of the burn or soak in a cool water bath (not ice water). Keep the area submerged for at least 5 minutes. A clean, cold, wet towel will also help reduce pain.
2. After flushing or soaking, and the skin has cooled, soothe the area with some aloe vera ointment or burn cream. Over-the-counter ibuprofen or acetaminophen can help relieve pain and swelling. **DO NOT** give children under 12 aspirin.
3. Protect the burn from pressure and friction.
4. Minor burns will usually heal without further treatment.
5. Make sure the person is up to date on tetanus immunization, if not, get a tetanus shot. Burns are susceptible to tetanus. Doctors recommend a tetanus shot every 10 years.
6. Newly healed burns can be sensitive to temperature. Healing burns need to be protected from cold temperature; the burned area is more like to develop frostbite.
7. A newly burned area can sunburn easily. Sun screen with a high sun protective factor (SPF at least 30) should be used for the first year after a burn to protect the new skin.

DO NOT:

- ▶DO NOT apply ointment, butter, ice, medications, cream, oil spray, or any household remedy to a severe burn. This can cause infection. Putting ice directly on a burn can cause a burn victim's body to become too cold and cause further damage to the wound.
- ▶DO NOT breathe, blow, or cough on the burn.
- ▶DO NOT disturb blistered or dead skin.
- ▶DO NOT remove clothing that is stuck to the skin.
- ▶DO NOT give the person anything by mouth if there is a **severe** burn.
- ▶DO NOT immerse a **severe** burn in cold water. This can cause shock.
- ▶DO NOT place a pillow under the person's head if there is an airways burn. This can close the airway.

When to Contact a Medical Professional -

- The burn is extensive (the size of your palm or larger) or severe (third degree).
- The burn is caused by chemicals or electricity.
- The person shows signs of shock.
- The person has inhaled smoke.
- When pain is present after 48 hours.
- Call a doctor if signs of infection develop. These include increased pain, redness, swelling, drainage or pus from the burn, swollen lymph nodes, red streaks spreading from the burn, or fever. Also, call immediately if there are signs of dehydration - thirst, dry skin, dizziness, lightheadedness, or decreased urination.
- Children, the elderly, or anyone with a weakened immune system should be seen right away.

Before giving first aid, evaluate how extensively burned the person is and try to determine the depth of the most serious part of the burn. Then treat the entire burn accordingly. If in doubt, treat it as a severe burn. The important thing to remember when dealing with burn injuries is that you should never underestimate the seriousness of a burn. You should seek medical help if any doubt exists about the seriousness of a burn.

This information is not intended to replace the advice of a doctor. UW disclaims any liability for the decisions you make based on this information. Call 1-800-222-1222 for more information on treating burns. (Sources: MayoClinic.com; WebMD Medical Reference from Healthwise)

Family meals - a must!

Trish Peña - Crook & Weston Co.

Cent\$ible Nutrition Educator

Family meals are important! Shared meals nourish mind, body, and soul. Families who have made the effort to schedule meals when most or all members can be present have experienced the following benefits:



Better Communication:

Mealtime conversations let family members share the daily happenings in their lives and get to know each other better. Meal time can be a time to plan family activities and discuss family needs.

Stronger family bond: Every family has strengths. Eating together increases each family member's sense of belonging and provides a setting for discussions that can reinforce values that are important. Regular family meals create a routine that helps each of us feel more secure. Stronger bonds make it easier to deal with problems.

Shared learning: Eating together offers an opportunity to practice social skills, including table manners and conversation, as well as food preparation skills

Improved Nutrition: A more balanced nutritious meal is likely to be prepared when most or all of the family eats together. Shared meals also can save money.

Get your family together at the table. Make eating together a priority: Yes, families are busy, but even busy families have to eat. The benefits of sharing meals and conversation out-weigh scheduling difficulties. If you do not eat together now, start with one meal a week and plan from there

Be creative and flexible about when and where you eat: Family meals can be shared at home, a restaurant, a park, or near the school or playing field as a picnic. Simply eat together whenever possible.

Make mealtime pleasant: Eliminate distractions by turning off the television and radio. Practice making positive comments, taking turns talking, and listening without interruption. Postpone negative conversations until another time. If someone asks why manners matter, remind them that good manners are a way of showing respect for others. Practicing at home builds confidence for social situations away from home.

Serve a variety of foods: Consider family preferences and MyPyramid when planning meals. Try to include a variety of foods daily. Many of us need encouragement to try new foods. A small bite may be all we want the first time we taste something unfamiliar, but it is a beginning.

Cold Temperatures : Heavier Calves



By Blaine Horn
University Extension Educator
Northeast Area

In the December 18, 2009 issue of the Prairie Star agricultural weekly publication I came across an article titled “Cold winters bring heavier calves”. The article cited work done by Oklahoma State University and University of Nebraska Animal Scientists looking at winter temperatures and the affect they had on calf birth weights. Results of the Nebraska study were reported in that University’s Animal Science Department’s 1999 Nebraska Beef Cattle Reports titled “Climate affects calf birth weights and calving difficulty” by Gene H. Deutscher, Dave Colburn, and Rex Davis.

The Nebraska study was conducted at the University’s West Central Research & Extension Center at North Platte, NE for six years (1992-93 – 1997-98) with two-year-old cows and their calves. MARC II (¼ Angus x ¼ Hereford x ¼ Simmental x ¼ Gelbvieh) heifer calves that had been raised at the Gudmundsen Sandhills Laboratory near Whitman, Nebraska were used each year of the study. These yearling heifers were bred by AI to the same Angus sire which was a trait leader for calving ease with a birth weight EPD of -1.7 and a yearling weight EPD of +39. The calving season was from mid-February to 1 April. The bred heifers were generally managed similarly each year: on native

pasture during the fall and fed bromegrass hay *ad libitum* (10 % crude protein) with alfalfa hay (17 % crude protein) as a supplement (3 to 4 lb/day) during the winter to meet requirements.

Daily maximum and minimum temperatures for the months of Dec, Jan, and Feb were recorded along with wind chills. What they found was that as average winter temperatures decreased 1° F, subsequent calf birth weight increased 1 pound and calving difficulty increased 2.6 percentage points. Long-term (1971-2000) average Dec – Feb temperatures for North Platte is 26° F. The coldest winter of the study period was 1992-93 with an average temperature of 20° F and the warmest was 1994-95 with an average temperature of 31° F. Average calf birth weights following these two winters was 77.6 and 66.4 pounds, respectively. Average winter temperatures for the other four years of the study and resultant (calf birth weights) were: 26° (72.5), 27° (75.2), 27° (72.4), and 30° (67.4).

Why heavier calves with colder winter temperatures is believed to be caused by the blood concentrating internally to conserve heat and maintain the cow’s core body temperature. As a result the fetus might be receiving

more nutrition due to more blood flow to the uterus. Glenn Selk, Oklahoma State University Extension cattle specialist, indicates that during warmer weather blood is shunted away from internal organs toward extremities to dissipate heat. However, research from the University of Georgia attribute the increase in fetal weight during colder winters to an increase in feed intake due to supplemental feeding of the cow. Most likely larger than normal late winter/early spring born calves following a colder than average Dec – Feb can probably be attributed to both internal blood concentration and additional feeding.

In Northeast Wyoming this past December was colder than average, January possibly warmer, and February may be slightly colder. So, whether late winter/early spring born calves this year are larger than normal remains to be seen, although those ranchers that are well into their calving season already know whether this is the case. For those producers that don’t begin calving until May winter temperatures may have little effect on calf birth weights. However, it would be wise to prepare for such anyway, especially if March and April temperatures are colder than average.



TOP 10 NON-PROFIT GOVERNANCE MISTAKES

By Bill Taylor,

Northeast Area Community Development Educator

1. Failing to Understand Fiduciary Duties. When you volunteer to serve as a director or officer of a non-profit, you accept the responsibility to act with the duties of good faith, due care and loyalty. You also accept the potential liability for failing to fulfill those duties. It is no longer sufficient to rubber stamp committee or staff recommendations or to simply “abstain” from dicey decisions. Today, board service comes with real responsibilities and real consequences for those that fail to live up to them.

2. Failing to Provide Effective Oversight. Boards are entitled to delegate tasks to committees, officers, staff, or in certain cases, professionals, but only if they perform sufficient oversight. Oversight is commonly exercised through policies and procedures so long as the board ensures that the policies and procedures are actually followed. Common oversight mechanisms include review of financial statements and the annual Form 990 as well as the implementation of various governance policies. Popular governance policies for nonprofits include conflict of interest policies, executive compensation policies, travel and expense reimbursement policies, whistleblower policies, etc.

3. Deference to the Executive Committee, Board Chair or the Organization’s Founder. No one owns a tax-exempt non-profit. No one committee, director, or individual can control the organization. The executive committee, if one exists, is typically charged with acting on behalf of the board when the board is not in session and cannot be easily convened. It is, however, accountable to the full board and should not be permitted to operate as a “mini-board.” The chair’s primary duty is typically to preside over board meetings and to act as a liaison between

the board and the chief executive. The chair does not have the power to override decisions of the board. The board has a duty to review the performance and set compensation for the chief executive and if necessary, censure or even terminate the chief executive.

4. Micro-managing Staff. For a non-profit organization with paid staff, once board members demand keys to the organization’s offices and start making direct demands on staff that report to the chief executive, the board has crossed the line. The board’s key duties are to provide oversight and strategic direction, not to meddle in the organization’s day to day affairs. Board members who cross this line are undermining the authority of the chief executive to their own detriment and should be prepared to quit their day jobs.

5. Avoiding The Hard Questions. It can be uncomfortable to ask tough questions or to disagree with one’s fellow board members. However, group think rarely leads to sound decision-making. Often, the most valuable board members are the ones who, calmly and respectfully, speak their mind. It is important to set a tone that encourages a free exchange of ideas, both good and bad. Open, vigorous discussions about key issues should be encouraged. A board that passes every resolution “unanimously” should evaluate whether it needs to do more to encourage a thoughtful and open discussion.

6. Insufficient Conflict Management. If a conflict of interest is with an insider, their family member or business, it’s not enough to simply disclose the conflict and have the disinterested directors approve the transaction.

In such cases, the disinterested members of the board need to consider alternate arrangements that do not give rise to a conflict of interest. If after considering alternatives, the board still finds the transaction with the insider is in the best interest of the organization, then the board should carefully document the basis for the decision and the fact that the interested director did not participate in the deliberations or vote.

7. Lack of Awareness of Laws Governing Tax-Exempts. Directors that hail from the for-profit world often assume nonprofits operate in a less-regulated environment. In reality, the opposite is true. Tax-exempt organizations enjoy an array of tax and other benefits. To ensure those benefits are not exploited, Congress and local governments have imposed additional legal requirements that tax-exempts must follow. It is essential that directors of tax-exempt entities be aware of the various federal, state, and local laws that apply to the organization. Many directors are unaware whether they are governing a private foundation, a public charity, a supporting organization, or another form of tax-exempt entity, all of which are subject to different limits on their activities. Ongoing board training and orientation for new board members is often the best solution.

8. Operating with Outdated, Inconsistent Governing Documents. Over time, many organizations change their mission and purpose without updating their governing documents. Similarly, many organizations develop governance practices that do not comply with their original governing documents. Encourage compliance by conducting regular reviews of the governing documents and checking the bylaws before electing additional officers or directors, creating additional committees, adopting amendments, etc.

9. Airing Disagreements Outside the Boardroom.

Every board's motto should be "what happens in the boardroom stays in the boardroom." Inherent in the duty of loyalty that all board members must adhere to, is an Implied duty of confidentiality. Once an issue is settled by board vote, the board members who voted against the majority must present a united front. If a vote is so disagreeable that a board member cannot carry on in this manner, the board member should consider resigning. In extreme cases, if the board member believes the corporation's rights are being violated, the board member could join together with other like-minded board members to bring a derivative suit to enforce the organization's rights.



10. Failure to Cultivate Board Diversity. The initial board is typically made up of friends and advisors of the organization's founder. Over time, the initial board may reach out to their trusted friends and advisors to fill vacancies. This approach to board recruitment can lead to the "usual suspect" syndrome. This is where the same individuals who went to the same schools, belong to the same clubs, and hail from the same neighborhoods and professions are institutionalized onto an organization's board. If your organization is run by a group of "usual suspects," consider mixing it up by creating a matrix of skills, experiences, and backgrounds that would add valuable perspectives to the board.



Strengthening Communities through Youth-Adult Partnerships

By: Allison Flynn, 4-H/Youth Development Educator, Sheridan County

Effective youth-adult partnerships have been shown to be an essential part of positive youth development. These partnerships can strengthen and unify communities through a mutual exchange of ideas, learning and action.

What are Youth-Adult Partnerships?

Youth-adult partnerships happen when young people and adults become engaged together in the community and share in teaching, learning and planning. This sharing or mutuality is what distinguishes youth-adult partnerships from parent-child, student-teacher or mentoring relationships.

Youth-adult partnerships do not automatically occur when youth and adults are present in the same room. Roger Hart's Ladder of Participation is often used to describe Youth-Adult Partnerships (see figure). The top rung of the ladder embodies a true youth-adult partnership where young people and adults share in decision making.

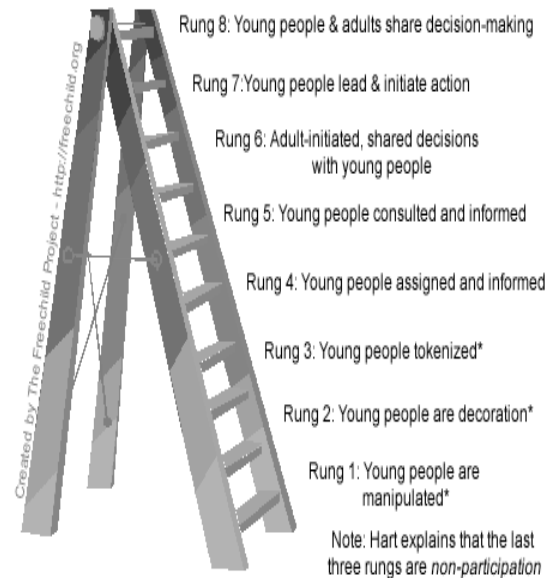
Why are Youth-Adult Partnerships important?

Research shows that youth involvement in positive partnerships with adults results in decreased risky behavior, stronger communication skills, leadership experiences, increases stature in the community and improved self-esteem. The partnerships are also beneficial to adults. It has been shown that organizations that involve youth in program design, implementation and evaluation have increased relevancy and effectiveness. Involving youth may result in benefits including new ideas, fresh perspectives, relevant information for youth, open and honest responses, additional human resources, greater willingness from youth and greater creditability of the program.

How can Youth-Adult Partnership be formed?

Effective youth-adult partnerships can sometimes be slow to start. Often youth and/or adults have

Roger Hart's Ladder of Young People's Participation



Adapted from Hart, R. (1992). *Children's Participation from Tokenism to Citizenship*. Florence: UNICEF Innocenti Research Centre.

perceptions from other groups that prevent them from working together effectively. Strategies that can to be used to form partnerships include:

- Have an equal number of youth and adults on advisory boards, councils and committees.
- Select youth and adults who are willing and able to engage in partnerships
- Have youth and adults work together to determine roles, plan activities, set deadlines, create guidelines and divide tasks.
- Make everyone feel comfortable enough to ask questions and share ideas.
- Allow youth to make significant program or community decisions.
- Youth and adults should be seen as having unique and valuable contributions to the partnerships.

It's not always easy to use youth-adult partnership strategies, but can be a very effective way to improve community organizations and leads to positive youth development.



Cholesterol

By Kentz Willis

University Extension Educator –
NE Area
Nutrition and Food Safety

Triglycerides, HDL's, LDL's, VLDL's,...is anyone else confused? I'd like to help you sort the fact from the fiction relating to health and cholesterol—the good, the bad, and everything in-between. Even better, I will try to do it using as few acronyms as possible.

Cholesterol is essential for many functions within the body, including the construction of cell membranes and many of our hormones. Though it is required for these functions, it is not considered an essential nutrient because we are able to make all the cholesterol we need from other substances within our body. While a certain amount of cholesterol is required for health, too much in our blood can have negative health consequences.

Triglycerides are the major form of fat we eat and store in the body, and a major source of energy. Similar to cholesterol, they can be obtained through the diet, or made within the body. High triglyceride levels are associated with atherosclerosis, a disease that can cause heart attacks and strokes.

High levels of LDL and VLDL cholesterol encourage the formation of deposits on our artery walls that also lead to the development of atherosclerosis. This is why LDL cholesterol are often called 'bad' cholesterol. In contrast, HDL cholesterol, known as 'good' cholesterol, helps to remove cholesterol from the body. Higher levels of this cholesterol are considered positive for good health.

Many factors help to determine your personal cholesterol levels. As with most things, genetics plays the biggest role, but there are also many dietary and lifestyle choices you can make to help control your cholesterol. The most important dietary choice is to limit saturated and *trans* fats. These are found mainly in red meat and foods that are baked and fried. Replacing these fats with mono- and poly-unsaturated fats, like those found in olive and canola oils, along with omega-3 fats found in fish and flaxseed oils can be beneficial on blood cholesterol levels. Regular exercise and weight loss (if you are overweight) also positively affect cholesterol, as does adequate fiber intake. Moderate alcohol consumption may also be beneficial, but be careful! Drinking too much increases risk for high blood pressure and heart failure.

The American Heart Association recommends keeping your LDL cholesterol under 100 mg/dL, and your HDL *above* 40 mg/dL. Triglycerides should be under 150 mg/dL. Remember, this is in a fasting blood sample! Your levels will not be an accurate reflection of your health if you don't fast before your blood draw. It is recommended that everyone over the age 20 have these levels checked at least every 5 years. If you currently have known risk factors for heart disease your doctor may ask that you have your levels checked more often.

Plant Gems of Wyoming

By Scott Hininger & Tom Heald
University Extension Educators
Sustainable Agriculture

You can search the world for plants, but some gems exist in our own backyard. There is much renewed interest by the horticulture industry in discovering and bringing beautiful native and adapted plant materials to market that fit Wyoming conditions.

Curl-leaf mountain mahogany (*Cercocarpus ledifolius*): Found throughout the foothill country of the Big Horn and other Wyoming mountains on limestone outcrops, this broad-leaf deciduous shrub is as rugged and long living as almost any plant in the world. Specimens found on the southern slopes of the Big Horns are estimated to be at least 2,000 years old or older. The plant has an upright habit with dark green, leathery leaves with edges curling under – giving its name. Most winters, the leaves will stay green, which adds seasonal interest. Once established, this plant may never need supplemental water again. It's slow growing, but one can purchase 2-foot-tall plants, which should easily be 4- to 6-foot-tall within 10 years. It may take centuries for a mature height (8 to 20 feet) and width (6 to 10 feet) to be achieved. Plant in full sun.

Bigtooth maple (*Acer grandidentatum*): This is one of the best-kept secrets in the horticulture industry. An outstanding native considered a small tree with up to five lobed, dark-green leaves turning shades of yellow, orange and red in the autumn. Ecologists have theorized this maple and the sugar maple of the northeastern United States are essentially the same tree but developed separately as ice ages came and went. It is found along Wyoming's western edge. Some call it "mountain maple," but the great thing about this tree is it can tolerate the state's mostly alkaline soils and survive periods of drought once established. After establishment, an occasional deep watering is all that is needed to keep it looking great. A mature height (20 to 25 feet) and width (15 to 20 feet) can be achieved within 15 years if watered more frequently. Plant in full sun to partial shade.

Utah serviceberry (*Amelanchier utahensis*): This large, deciduous shrub looks great. It is found in the high desert prairie of southern Wyoming, where the winds and elements are as severe as anyplace. The leaves have a wooly, gray-green appearance, which is quite pleasing to the eye. In autumn, its color is a golden yellow. In spring, the whole plant is covered with a mass of white flowers followed by edible, bluish-black fruit in the summer. It is a great windbreak specimen. A mature height (6 to 12 feet) and width (6 to 8 feet) can be achieved within 15 years. An occasional deep watering after establishment is all that is needed. Plant in full sun.



Three-leaf sumac (*Rhus trilobata*): Also, know as skunkbush sumac, this is a very rugged deciduous shrub found throughout Wyoming's prairies and open, foothill slopes. The multiple stems have an oak-like leaf that turns a brilliant red to orange in autumn. This shrub basks in full sun, and wind is not an issue. It is tolerant of most soils – except very wet ones; however, occasional deep watering will give you a much larger plant. A mature height (3 to 6 feet) and width (4 to 7 feet) can be achieved within 10 years. Plant in full sun.

Rock spirea (*Holodiscus dumosa*): A compact shrub found in the crevices of rocks and gravelly soil in the mountain foothills. Beautiful white-to-pink flowers adorn the plant in June. In autumn, the flowers dry to a russet color, and the foliage turns reddish. When the leaves are crushed, they emit a spicy fragrance. It is not fussy about soil type except wet ones, and good drainage is absolutely necessary. It grows to a height and width of 2 to 4 feet. Plant in full sun.

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