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## *Invasion of the Tree Borers*

By: Scott Hininger

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Are we going to be invaded by some alien bug that will wipe out our ash trees? There is some real concern around the United States about foreign insects moving into states and decimating a species of trees. We have seen this with the Dutch elm disease, the beetles and diseases that are attacking our national forests. More recently, there is the discussion about the "Emerald Ash Borer".

The emerald ash borer is a wood boring beetle of Asian origin that has become established in parts of the upper Midwest. They attack ash trees particularly the green ash, which has been planted in Wyoming for many years. It is unlikely that these insects will make it to Wyoming on their own, as there is not a contiguous ash forest across the plains. So how will they get here? It is most likely that they will be transported here by either nursery stock or firewood.



What should you be on the lookout for? Emerald ash borers are a bullet-form typical of the flatheaded borer family. The two main distinguishing features of this beetle is the uniform metallic bright green color and the "D" shaped exit hole. This borer is similar as other borers in that the larval stage feeds under the bark with

meandering tunnels, which will eventually girdle and kill the tree.

There are borers that currently attack ash in Wyoming, such as the Lilac/ash borer. These borers can expel sawdust their round exit holes, the adult resembles a paper wasp, and when it exits the hole, it leaves its pupal skin. There is also the redheaded ash borer or Banded ash borer. This insect is a member of the longhorned beetle family although their antennae are not as long as most. However, they also have a rounded exit hole. Then there is the ash bark beetle, which is a much smaller beetle similar to the beetles that attack the pine trees. The holes these little beetles make are very small and the galleries the larvae make under the bark resemble those of the beetles infecting pine trees.

These non-native insects and diseases are continuing to be introduced into the United States, but how do they get to Wyoming? Colorado looked at this question from their standpoint. They did a statewide survey of nursery stock moving into the state and firewood movement into the state. It appears that there is a very low risk of the emerald ash borer moving into the west on its own. A survey showed 40% of the retail firewood sales in Colorado were from out of state. A survey of two national parks in Colorado showed 9% of the campers from out of state brought their own firewood. There was not a survey of hunters or people fishing from out of state bringing firewood with them.



There is a danger of moving borers with firewood or other wood products, but it is a lower risk however, the possibility is real. The real problem I see is the movement of diseases in firewood or wood products. These pathogens can remain viable for several years. Most insects you potentially can spray for but most of these diseases are not treatable. The highest threat is the movement of nursery stock into the state.

Firewood can be treated by wrapping or covering it with clear plastic and leaving it in the sun for several months in the summer, this will eliminate most insects, and some diseases. When looking at nursery stock make sure you inspect it for disease or insect problems, if it is suspect do not buy it. Most respective nurseries have good quality plants and knowledgeable staff to recognize these pests, and most box stores do not have this expertise.

“Pathways and Risk Assessment of Emerald Ash Borer Movement Into and Within The Western United States” William Jacobi Colorado State University.

“Emerald Ash Borer in Colorado” Whitney Cranshaw Colorado State University

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## ***Time and Timing of Grazing***

**By Blaine Horn, NE Area Range & Forage Management Educator**

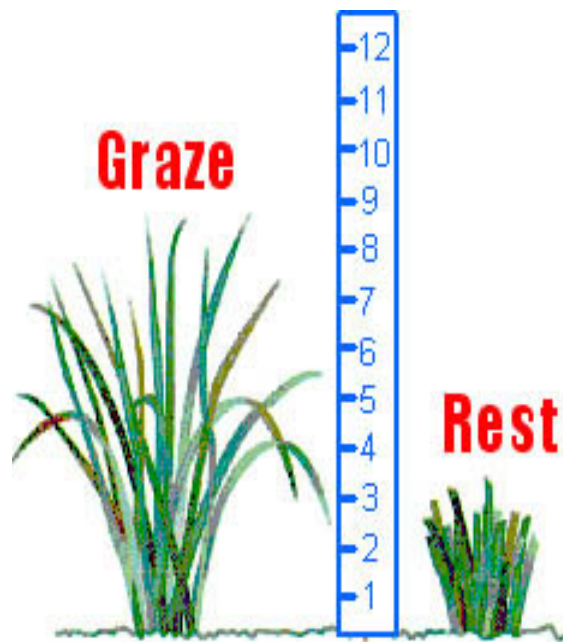
Have you ever heard a Rangeland Management Specialist use the phrase “Time and Timing of Grazing” and wondered what they meant and why they thought it was important in the management of pastures. “Time” of grazing refers to how long a pasture is subjected to grazing, i.e. how many consecutive days or even months livestock are in the pasture. “Timing” of grazing is the time of year the pasture is being grazed. More specifically it relates to the physiological growth stage plants are in when they are grazed, e.g. boot to anthesis stages (terms explained below). Managing when plants are grazed and for how long they are exposed to grazing can improve the forage production potential of a pasture whereas lack of management of these two factors can lead to pasture degradation.

Let’s first look at the effects of “Time” of grazing on a pasture. The longer animals are in a pasture the more intense grazing of the plants can be, i.e. the more leaf material that can potentially be removed. This is due to the animals coming back to plants that they had previously grazed and grazing them again. If the time between grazing events is long enough and climatic conditions conducive for plant growth the plant will have replaced some, if not all, of the initially lost leaf material and the impact on the plant may be nil. However, if the time between grazing events was not sufficient for regrowth to occur then additional leaf material will be removed to the possible detriment of the plant.

As you are aware, plants need green leaves to convert light energy into chemical energy they use for growth and reproduction. Besides above ground growth this chemical energy is also used to grow roots that explore the soil profile for moisture and minerals. If the plants do not have enough green leaf material for energy production root growth will suffer affecting the

health of the plant. In addition, the number of basal buds developed in grasses, precursors to next year’s tillers, may be reduced resulting in fewer tillers the following year.

During mid- to late spring in NE Wyoming when conditions are favorable for cool- season grass growth grazed grasses may be able to replace lost leaf material within a week’s time. However, to ensure the plants have time to not only replace lost leaf material there needs to be enough time free from potential defoliation to allow energy to again be trans located to the roots. Generally, if more than 50% of green leaf material is removed from a grass its roots stop growing due to energy not being transferred from the leaves to them. Root mortality and decomposition may begin within 36-48 hours after a 50% or greater removal of green leaf biomass. Thus, even during periods of favorable climatic conditions for growth or regrowth grasses should have at least two weeks rest from grazing to allow time for the roots to recover. And to ensure that the plants grazed on the last day of the grazing period have at least this much recovery time, it is recommended that the pasture be rested from grazing for at least three to four weeks.



Now what about the effects of “Timing” of grazing on a pasture? Depending on what stage of growth the grass is in when it’s grazed the impact on its health and wellbeing can either be minimal or substantial. Grazing of plants in the winter when they are dormant is the least detrimental to them, especially for grasses and forbs as their leaves and stems are dead and no longer providing energy to the plant. However, that does not mean all of the plant material should be allowed to be removed. Storage of carbohydrates occurs in the stem bases of grasses that will be used for growth initiation the following spring, thus two to three inches of stubble should be present over the winter. If a reduction in this pool of stored energy occurs the plant will need to translocate energy from the roots for spring growth initiation which could weaken them.

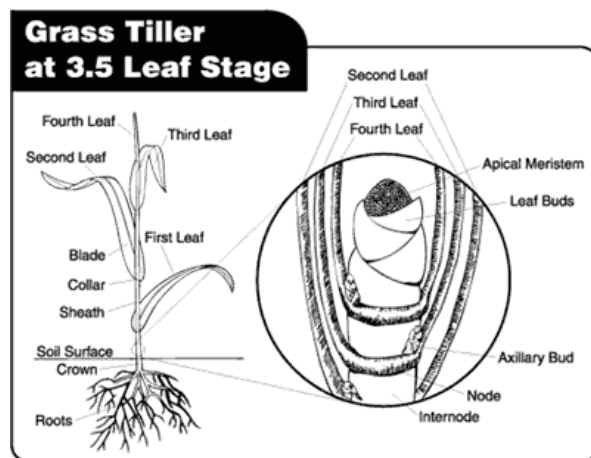
Early spring grazing of new grass shoots can have a negative impact on growth of the grasses resulting in less forage production than if grazing had been delayed until they produced at least four leaves. Removal of green leaf tissue prior to the four-leaf stage reduces the amount of energy sent to the developing growing point resulting in a stunting of the plant. However, once the grass has reached the four-leaf stage growth becomes rapid and it will produce more leaves than it needs to maintain itself. This is known as the vegetative stage of growth and grazing dur-

ing this period is usually the least detrimental to the grass, if at all.

The most detrimental growth stage for grasses to be grazed in is the transitional stage between vegetative growth and reproductive growth when seed stem elongation is occurring. Why this period is the most detrimental is due to the growing point being elevated above the soil surface and thus vulnerable to being removed by grazing. If the growing point is removed no further production of the shoot will occur. This can result in a reduction in viable basal buds and potentially fewer tillers next year.

The “boot” stage is the first phase of the reproductive stage and is when the seedhead is enclosed within the sheath of the flag leaf of the elongating stem. The “anthesis” stage is defined as the shedding of pollen by anthers onto receptive stigmas to develop seeds. Grazing during and between these two phases of the reproductive stage can be detrimental to grasses as well. The plant is putting all its energy towards seed development sending little, if any, to its roots. However, once seeds have formed energy is again sent to the roots to replenish them but if a significant amount of leaf material had been removed by grazing during this period they might not receive an adequate amount for winter survival. As a result growth of the plant the next year could be compromised.

Many ranchers graze their livestock year round thus grasses and other plants are going to be grazed at growth stages when defoliation is detrimental to their health. To reduce the negative impact of grazing providing plants adequate rest from grazing is important but maybe even more so is to not allow them to be grazed in the same growth stage year in and out. Developing a grazing plan, putting that plan into practice, and monitoring pastures so adjustments can be made as needed in a timely manner should result in good stewardship of the range resource and as a side benefit happy, productive livestock.



# Cheatgrass: A Problem for Northeast Wyoming

UW Extension Educator, Brian Sebade

Does anyone like a cheater? We have all encountered people that don't play by the rules, except we would never throw a grass found throughout Wyoming into this category. Or would we? Cheatgrass (*Bromus tectorum* L.), know by other common names of downy brome, downy brome grass and downy chess received the common name of cheatgrass from wheat farmers that described the problem grass as cheating them out of wheat yields. Cheatgrass is highly competitive for resources and in reality can actually be considered a cheater in certain economic agricultural systems. Other suggested problems associated with cheatgrass besides decreased crop yields include: decreased range production, disruption of native plant ecosystems, soil nutrient cycling, increased fire frequency intervals, and mouth damage to livestock.

The history and background of the problem grass starts in the Mediterranean area of Europe, where cheatgrass originates. The grass was historically used for thatching roofs of houses in the area. During the 1800's, the grass is believed to have reached America through seeds enclosed in packaging material. Cheatgrass has since moved throughout most of the western United States. This includes Crook, Weston, Campbell, Johnson, and Sheridan Counties.

There are many different physical features that aid cheatgrass in being invasive in the Western United States. The growth pattern of cheatgrass is different than most natives of Northeast Wyoming. This different growth pattern might be one contributing factor to the success and spread of the species since its introduction. Seeds of the plant germinate in the fall and then finish growing in the spring. The growth pattern is known as a winter annual growth cycle. Adequate moisture is needed in both the spring and fall for this process to work correctly. Seeds of cheatgrass also have a unique physical

feature. The seeds are extremely sticky. Seeds have rough awns, sides, and edges that help cling to just about anything. Once attached to a human, livestock, or motorized vehicle, seeds are able to spread and reach new sites to establish plants. Large amounts of seeds are also produced by cheatgrass. There are reports of more than 10,000 seeds in one square meter of dense stands. These seeds also have the ability to germinate up to nine years after reaching the soil.



A picture showing the mature seed head of a cheatgrass plant. Notice the long pointed awns that stick to just about anything and irritate the mouth of grazing animals.

Once established, dense populations or monocultures of cheatgrass can negatively impact range and pasture areas by disrupting grazing potential, removing native plant species, and changing fire and nutrient cycling. In northeast Wyoming, cheatgrass usually invades areas that are occupied by perennial grasses, forbs and shrubs. Winter annual grasses are not very common in most ecosystems of Northeast Wyoming and therefore cheatgrass does not receive increased competition from other plants of the same growth pattern. Grazing potential is decreased because of a very short time window that cheatgrass is palatable. Mature seeds can cause sores in the mouth and tongue areas of grazing animals.

When native plants are not able to outcompete cheatgrass or are in extremely low abundance, nutrient and fire regimes are thought to change at dense cheatgrass sites. As an annual, cheatgrass accumulates large amounts of litter near the soil surface that decreases the amount of water that infiltrates the soil. Most native plant communities have deeper roots compared to short annual roots. When increased litter and nutrients are accumulated near the soil surface nutrients become less abundant lower in the soil profile where deeper perennial roots usually occur.

Wildfires can be a useful tool in many native plant ecosystems to reduce undesired plants and increase other desired plants. However, wildfire does not become a tool when undesired species increase from fire disturbance. Cheatgrass is one plant species that benefits from wildfire disturbances because of its ability to quickly establish after fires. Once thick stands are prevalent, fire frequency intervals are increased. Stands burn more often and therefore often limit the establishment of native plant species.



*Picture of a dense mature cheatgrass stand.  
Native plants are absent from this stand.*

Now with the understanding that cheatgrass produces a lot of seeds, can be transported easily, and are viable in the soil for up to nine years explains the difficulties for controlling this problem plant. Fire and nutrient cycle changes also compound this control problem. Luckily there are a few options for control. Use of multiple control strategies over many years is important for control of cheatgrass in most areas. Herbicides are an option for control of cheatgrass

in many different settings. The chemicals used are effective, yet the application rate applied needs to be followed very carefully. If the application rate is not followed carefully, other native plants may become harmed. Two active ingredients that have been successful for control are glyphosate and imazapic. There are other chemicals available that work, yet these chemicals are discussed because most weed and pest offices in Northeast Wyoming seem to carry these chemicals. Glyphosate is most effective when sprayed in the spring after leaves have emerged. Glyphosate is only active when sprayed on leaves and is not active in the soil. Suggested application rates are 6-12 ounces per acre depending on the area. This chemical may sound familiar to some people because it is the active ingredient in the common herbicide *Roundup*. Imazapic is a chemical that is active in the soil and works best when there is small amounts of litter cover. Imazapic is effective when applied at a rate of 2-8 ounces in the fall prior to seed germination and in the spring prior to leaf production. Plateau or Panoramic are common trade names used. Contacting local weed and pest offices is a good resource to use for chemicals that work best in your area.

Other control options to consider might include pulling plants if they are in a small isolated patch. This might not be an option for larger areas with cheatgrass. Grazing pressure could also be an option for certain areas. Utilizing targeted grazing to graze cheatgrass in the spring when plants are emerging with the objective to decrease seed heads could be an effective tool over time. This type of grazing is very intensive and should be monitored very closely and often to make sure animals are effectively removing seed heads.

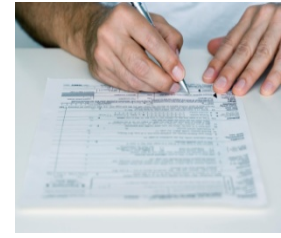
Finally, the last strategies for controlling cheatgrass are making sure to prevent the future spread of the plant. This control method means thinking about how to prevent the long lived seeds of cheatgrass from making it to new areas and practicing good grazing management to promote healthy rangelands. Minimizing the spread of seeds through movement of vehicles, livestock, and human contact is important for any control management area.



## 2012 TAX TIPS

by

Bill Taylor, Northeast Area Community Development Educator



If you haven't already, you need to be gathering information and forms to attack that job none of us care for – filing of your federal tax return. Here are some of the tips found on the Internal Revenue Service website at [www.irs.gov](http://www.irs.gov):

### Determining Your Filing Status

Determining your filing status is one of the first steps to filing your federal income tax return. Your filing status is used to determine your filing requirements, standard deduction, eligibility for certain credits and deductions, and your correct tax.

Some people may qualify for more than one filing status. Here are eight facts about filing status that the IRS wants you to know so you can choose the best option for your situation.

1. Your marital status on the last day of the year determines your marital status for the entire year.
2. If more than one filing status applies to you, choose the one that gives you the lowest tax obligation.
3. **Single** filing status generally applies to anyone who is unmarried, divorced or legally separated according to state law.
4. A married couple may file a joint return together. The couple's filing status would be **Married Filing Jointly**.
5. If your spouse died during the year and you did not remarry during 2011, usually you may still file a joint return with that spouse for the year of death.

6. A married couple may elect to file their returns separately. Each person's filing status would generally be **Married Filing Separately**. You will generally pay more combined tax on separate returns than you would on a joint return. You should figure your tax both ways.

7. **Head of Household** generally applies to tax payers who are unmarried. You must also have paid more than half the cost of maintaining a home for you and a qualifying person to qualify for this filing status.

8. You may be able to choose **Qualifying Widow (er) with Dependent Child** as your filing status if your spouse died during 2009 or 2010, you have a dependent child, have not remarried and you meet certain other conditions.

**Six Important Facts about Dependents and Exemptions:** The IRS has six important facts about dependents and exemptions that will help you file your 2011 tax return.

1. **Exemptions reduce your taxable income.** There are two types of exemptions: personal exemptions and exemptions for dependents. For each exemption you can deduct \$3,700 on your 2011 tax return.
2. **Your spouse is never considered your dependent.** On a joint return, you may claim one exemption for yourself and one for your spouse. If you're filing a separate return, you may claim the exemption for your spouse only if they had no gross income, are not filing a joint return, and were not the dependent of another taxpayer.

**3. Exemptions for dependents.** You generally can take an exemption for each of your dependents. A dependent is your qualifying child or qualifying relative. You must list the Social Security number of any dependent for whom you claim an exemption.

**4. If someone else claims you as a dependent, you may still be required to file your own tax return.** Whether you must file a return depends on several factors including the amount of your unearned, earned or gross income, your marital status and any special taxes you owe.

**5. If you are a dependent, you may not claim an exemption.** If someone else – such as your parent – claims you as a dependent, you may not claim your personal exemption on your own tax return.

**6. Some people cannot be claimed as your dependent.** Generally, you may not claim a married person as a dependent if they file a joint return with their spouse. Also, to claim someone as a dependent, that person must be a U.S. citizen, U.S. resident alien, U.S. national or resident of Canada or Mexico for some part of the year. There is an exception to this rule for certain adopted children. See IRS Publication 501, Exemptions, Standard Deduction, and Filing Information for additional tests to determine who can be claimed as a dependent.

**Gather your records** – Round up any documents you'll need when filing your taxes: receipts, canceled checks and other documents that support income or deductions you're claiming on your return.

**Have a question?** – Use the *Interactive Tax Assistant* available on the IRS website to find answers to your tax questions about credits, deductions, general filing questions and more.

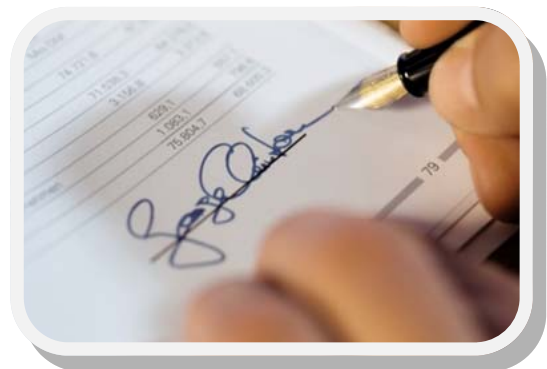
**Use Free File** – Let Free File do the hard work for you with brand-name tax software or online fillable forms. It's available exclusively at [www.irs.gov](http://www.irs.gov). Everyone can find an option to prepare their tax return and e-file it for free. If you made \$57,000 or less, you qualify to use free tax software offered through a private-public partnership with manufacturers. If you made more or are comfortable preparing your own tax return, there's Free File Fillable Forms, the electronic versions of IRS paper forms. Visit [www.irs.gov/freefile](http://www.irs.gov/freefile) to review your options.

**Consider other filing options** – There are many options for filing your tax return. You can prepare it yourself or go to a tax preparer. You may be eligible for free face-to-face help at a volunteer site.

**Consider direct deposit** – If you elect to have your refund directly deposited into your bank account, you'll receive it faster than a paper check in the mail.

**Remember this number: 17** – IRS Publication 17, *Your Federal Income Tax*, is a comprehensive resource for taxpayers, highlighting everything you'll need to know when filing your return.

**Review! Review! Review!** – Don't rush. Be sure to double check all the Social Security numbers and math calculations on your return as these are the most common errors. If you run into a problem, start with [www.irs.gov](http://www.irs.gov).





## RED AND LUSCIOUS - IT'S TIME FOR STRAWBERRIES

Vicki Hayman, UW Extension  
NE Area Nutrition & Food Safety



Now that spring is here, we're able to purchase strawberries. Strawberries are always a nutritious choice as a treat. The heart-shape of the strawberry is the first clue that this fruit is good for you. These potent little packages protect the heart, increase HDL (healthy) cholesterol, lower blood pressure, and guard against cancer.

Packed with vitamins, fiber, and particularly high levels of antioxidants, strawberries are a sodium-free, fat-free, cholesterol-free, low-calorie food. They are a good source of manganese and potassium. Just one serving -- about eight strawberries -- provides more vitamin C than an orange. Strawberries also have potassium, which can help maintain a healthy blood pressure.

There's no need to worry about limiting your serving sizes if you eat fresh, raw berries -- 1 cup of strawberries contains around 45 calories and provides 3 grams of fiber. You need only beware of adding sugar or high-fat products that add extra fat and calories.

When purchasing berries, pick the most fragrant berries. They should be firm, bright, and fresh looking with no mold or bruises, and fresh green caps (stems). Dull-colored strawberries indicate that they are overripe. Berries should be dry and clean; usually medium to small are better eating quality than large ones. Strawberries do not ripen after they have been harvested; select those that were picked fully ripened.

Before using or storing, sort the strawberries and discard any that are soft or spoiled. Leave the caps on the berries until ready to eat or use in recipes. Do not wash the strawberries. Moisture is the enemy when storing strawberries. Store fresh berries in a colander, uncovered, in the refrigerator; this allows the cold air to circulate. Strawberries taste best at room temperature, remove from the refrigerator approximately 1 hour before using. Remove caps from strawberries only after washing (the caps keep the water from breaking down the texture

and flavor inside the strawberries). To keep strawberries from absorbing large quantities of water when washing, place in a salad spinner to remove excess water. Following are a couple of strawberry recipes to try:

### **Strawberry Salad With Grilled Shrimp**

*2 cups baby spinach, rinsed and dried*  
*2 cups arugula, rinsed and dried*  
*2 cups strawberries (about 1 pt.), hulled and sliced*  
*2 oz. crumbled goat cheese*  
*3 teaspoons pecans, toasted and chopped*  
*2 small green onions, sliced*  
*1 lb. shrimp, cleaned and deveined*

#### **Dressing:**

*2 tablespoons balsamic vinegar*  
*1 tablespoon honey mustard*  
*1 tablespoon olive oil*  
*1 tablespoon fresh chopped basil*  
*Pinch of salt and freshly ground pepper*



1. Combine all salad ingredients (except shrimp) in a large bowl. Toss gently.
2. Make the dressing: Whisk the vinegar and mustard together in a small bowl; slowly whisk in olive oil. Add basil and season with salt and pepper.
3. Grill the shrimp: Heat and oil an outdoor or stove-top grill. When hot, add shrimp and grill 3 to 4 minutes on each side until slightly charred and cooked through. Remove from heat.
4. Divide salad among four plates. Arrange grilled shrimp on top.
5. Drizzle dressing over each and serve.

### **Strawberry Sauce**

*Great for spooning over yogurt, ice cream, cakes, and pancakes*

*½ cup sugar*  
*½ cup water*  
*1 pint strawberries (2 cups sliced)*  
*1 tablespoon lemon juice*

Bring sugar and water to a boil in a small saucepan. Simmer until sugar is completely dissolved. While syrup mixture cools completely, blend ½ the strawberries and lemon juice in a blender. When syrup mixture is cool, add to the blender and puree until smooth. If desired, press the puree through a fine sieve to remove seeds. Chop remaining berries and add to puree. Refrigerate up to 4 days.



## THE LUXURY VEGETABLE: ASPARAGUS

Vicki Hayman, UW Extension NE Area Nutrition & Food Safety

After long months of root vegetables and winter fruits, enjoy the vegetable closely associated with the arrival of spring - tender green asparagus! Asparagus is often thought of as a luxury vegetable, prized for its succulent taste and tender texture.

Asparagus is actually a young edible shoot, commonly called a spear. While the most common variety of asparagus is green in color, two other edible varieties are available – white and purple.

Asparagus is a powerhouse of nutrients. It is an excellent source of folic acid, vitamin C, potassium, B vitamins, copper, vitamin A, iron, phosphorus and zinc. A 5-ounce serving provides 60% of the recommended daily allowance for folacin, which is necessary for blood cell formation, growth, and prevention of liver disease. It has no fat, contains no cholesterol and is low in sodium, so indulge!

Look for straight, firm stalks that do not have a strong odor. Choose bright green stalks with smooth, tender skin, and have compact (closed) deep-green or purple tips. Avoid yellowish asparagus with soft stalks and heads that are beginning to flower, which are signs of age. Check the cut stem end for any signs of drying and always avoid withered spears. Select stalks of similar size to cook evenly.

Thinner stems are not an indication of tenderness. Thick stems are already thick when they poke their heads out of the soil; thin stems do not get thicker with age. Tenderness is related to maturity and freshness.

Asparagus is an extremely perishable vegetable; wrap it in a damp cloth and store in a perforated plastic bag in the refrigerator. Fresh asparagus can also be stored by trimming an inch off the stem end, wrapping ends with a wet paper towel and standing the spears upright in a container filled with a couple of inches of water. Place a loose plastic bag over the spear tips and store in the refrigerator.

It's unnecessary to peel asparagus, but it should be washed well in cold water to get rid of soil. It is not necessary to purchase an asparagus kettle in order to cook asparagus properly. Avoid cooking asparagus in cast-

iron pots, as asparagus contains tannins that react on contact with iron and alter the color of the vegetable. The key to perfectly cooked asparagus is "cook it briefly." Try one of these methods:

**Stir-Fry:** Cut spears diagonally in ½ to 2 inch pieces, leaving tips whole. Stir-fry pieces in butter or hot oil, in a skillet or wok at medium high heat. Stir constantly until tender-crisp, 3 to 5 minutes.

**Roasting:** Place asparagus on a baking sheet coated with nonstick cooking spray and roast in a preheated 450 degree oven for about 10-15 minutes, depending on thickness of the spears. Or, instead of using cooking spray, drizzle a little olive oil over the asparagus before roasting.

**Grilling:** Place asparagus spears on a preheated (medium-high heat) grill sprayed with olive oil spray; cook for 5-8 minutes until tender, turning occasionally.

Asparagus can be eaten raw, or incorporated into casseroles and salads. Raw asparagus is tasty served as a 'finger food' with a flavorful dipping sauce. When using asparagus as a salad, wait until serving time to add dressing as the high acid content will turn the spears yellow. Add fresh chives, savory, thyme and tarragon to enhance the flavor of cooked asparagus. Asparagus mixes well with many ingredients; it is delicious topped with olive oil, lemon juice, salt and pepper.

Asparagus continues to be among the most popular green vegetable. It seems almost too good to be true that it's also good for you. As an appetizer, a first-course, soup, or a vegetable dish alongside an entrée, asparagus is wonderful in all its variations. So, prepare asparagus for your meal tonight!

1 pound asparagus, tough ends trimmed and discarded  
8 ounces prosciutto, very thinly sliced  
1 tablespoon olive oil  
½ cup Philadelphia Cooking Creme (any flavor)  
1 tablespoon water

1. Preheat the oven to 400F. Wrap 2 asparagus spears with a slice of prosciutto. Place spears on baking sheet. Drizzle olive oil on the tips and ends of the asparagus (avoiding the prosciutto). Roast for 8-10 minutes, until the asparagus is cooked through and the prosciutto becomes crispy.
2. In a small bowl, whisk together the Philadelphia Cooking Cream with the water. Microwave on medium setting for 45 seconds.
3. Plate the asparagus and drizzle the Philadelphia Cooking Cream over the asparagus. Serve immediately.



**Summer Heat and Fluids:  
How Much is Enough?  
How Much to Drink?**

Summer is just around the corner, and many of us are beginning to spend more time outside. This increase in activity, especially as the temperatures rise, makes paying attention to our bodies' fluid needs, or *hydration*, much more important.



Improper hydration can put undue stress on vital organs like the heart and kidneys. This is obviously bad for health, and whether your activity of choice is mowing the lawn or running a marathon your physical performance will suffer.

Dehydration, or not enough fluids, is commonly associated with activity in the heat. Mild cases will cause sleepiness and headaches but severe dehydration can be serious. In the hot summer months dehydration can strike quickly if you're not paying attention.

So we should just drink lots of water, right? Not so fast...while dehydration is more likely to be an issue did you know that you can be overhydrated as well?

Overhydration, known as hyponatremia is a serious fluid imbalance that, at its most extreme, can cause death. It is simply caused by drinking too much fluid (usually water) and is more likely to take place during endurance exercise events (like marathons), where individuals may be consciously trying to 'stay hydrated', unaware that they are drinking too much.

So how do you know how much to drink? This is where things get even trickier. Everyone has

different fluid needs, and these needs are highly dependent on factors like temperature, humidity, and activity level. The old 8 x 8oz glasses of water per day advice does not work for everyone. Thirst is one indicator but may not be strong enough to help everyone drink adequately, especially during times of increased need. If you rarely feel thirsty and your urine is usually a pale yellow color you are probably on track.

How about all of those fancy sports drinks, are they really necessary? Well, when you sweat you lose electrolytes (mostly salt, but also potassium and a few others) along with the fluid. These electrolytes help you to maintain fluid balance and cannot be replaced by water alone. If you're doing an activity that causes you to sweat heavily then sports drinks may be helpful. They are a very convenient way to replace the carbohydrates and electrolytes that you use/lose during activity.

For the average person, however, sports drinks are probably not necessary. Most of us would do better without the extra calories and sugar in our diet. In addition, there is really no reason that you cannot get the carbohydrates and electrolytes you need from real food. Salted pretzels or popcorn are two great choices, though they may not be quite as appealing if you're out for a 2-hour run!

Whether you are planning to get some yard work done or training for your next marathon you will quickly experience the benefits of proper hydration. Listen carefully to your body and be aware of your individual fluid needs to maintain hydration during the hot summer months and beyond. *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](mailto:kwillis3@uwyo.edu) or by phone at 674-2980.*



# 4-H Volunteers Make the Difference!



**Celebrating the contribution of 4-H Volunteers and encouraging you to get involved!**

By: Stacy Madden, 4-H/Youth Development Educator, Weston County

During April we take the time to celebrate the importance of volunteers to the 4-H program during National Volunteer Week, April 15-21. Nationally, over 6 million youth are enrolled in 4-H and these youth are taking the lead in their schools and communities. These youth are learning by example from the 540,000 adult volunteers training our future leaders and innovators. As the oldest and largest youth-serving organization, 4-H volunteers have the opportunity to make a difference in the lives of our youth.

4-H volunteers are the heart of our programs, taking the time to ensure that 4-H youth are gaining positive life skills through hands-on learning. One core element of positive youth development is a strong relationship with a caring adult, or that relationship between 4-H'er and volunteer. In our counties, 4-H volunteers wear a number of hats and give to the program in diverse ways.

Did you know that anyone can be a 4-H volunteer? There are many different ways to get involved with the 4-H program to ensure its success. 4-H volunteers are not just club leaders and project teachers, they can be silent chaperones, organizational gurus, car-pool drivers, snack makers, program experts, or any number of roles.

Most traditionally, 4-H volunteers are community club leaders or project leaders. Community Club leaders are in charge of club

activities and direction. These leaders are the 4-H club managers, they encourage community service projects, facilitate educational programming in the club, enthusiastically promote social activities, insist that members complete elements of the 4-H program (like giving presentations), and help members find the information they need for their projects. Community Club Leaders are some of the most visible since they meet with 4-H members on a regular basis and busy as they help clubs with all of their activities.



Photo by Vicki Hayman

Project leaders, on the other hand, share specific knowledge about a skill or area of interest. These leaders are teachers and mentors for 4-H members. If you have a special talent, area of expertise, or passion for teaching, this is the volunteer experience for you. These leaders really step into that role as a caring adult mentor, leading by example and teaching 4-H youth about responsibility, motivation, compassion, time management, independence, goal setting, determination, and mastery, among many others.

4-H volunteers can also serve on any number of committees that are critical to the success of the 4-H program. Committee membership offers volunteers the opportunity to oversee program elements and shape the future direction of the 4-H program. For example, if you enjoy fundraising, planning events, and organizing volunteer helpers, put your talents to work on your county achievement day committee.



Photo by Vicki Hayman

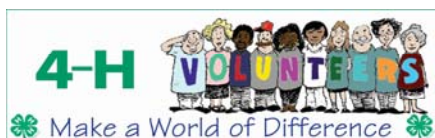
Perhaps you are uncomfortable providing educational programming, managing various activities, or just being in the spotlight. Your skills and talents can be utilized in other ways to ensure the success of the 4-H program. For example, a marketing professional can donate time to helping create some awesome informational brochures or a banker can help audit club treasurer's books. Further, volunteering with 4-H can be as simple as providing a snack for a club meeting, offering to drive the carpool, or stopping by the office and spending an hour helping organize the paperwork for fair. No matter your skill level, interest, or time constraint, 4-H has a volunteer opportunity for you.

Personally, I started my adult career with 4-H as an adult volunteer sharing my expertise as a project leader. As I reflect back on that

experience, I find that it was one of my most rewarding experiences with 4-H. There is just no better feeling than calming the nerves of a junior horseman before he enters his first class at fair. Simply teaching him that the secret ingredient to impressing the judge in a showmanship class is not always executing the pattern perfectly, but instead using the skills you learned, trying your best with a big smile on your face and having fun can make the difference. Of course watching this same junior head out in the arena, charm the judge with his smile, confidently complete his pattern without his nerves getting the best of him, and winning Reserve Grand Champion was a bonus! Ask any 4-H volunteer, it's these experiences that make volunteering the best medicine for the soul you can find.

To wrap it all up, I just want to take a brief moment and thank all the volunteers that make 4-H a success. Our 4-H members gain a wealth of knowledge from you all, not just about project skills or club management, but also about setting a good example, giving back to your community, and being the best that you can be. Thank you, 4-H volunteers; you truly make the best better.

If you are interested and motivated to get involved with 4-H, contact your local Extension Office and find out how you can help your County 4-H Program!  
Campbell County, 307-682-7281  
Crook County, 307-283-1192  
Johnson County, 307-684-7522  
Sheridan County, 307-674-2980  
Weston County,  
307-746-3531





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