Prairie County Homemakers,

Happy Valentine’s Day! This edition of the Domestic Engineer has your heart in mind. You will find some delicious healthy recipes, nutrition information, and other tips for healthy living.

I am pleased to report that our Extension Winter Series was a success. Thanks to all of you who make the annual Bake Sale and Luncheon possible. What a great event to benefit the community.

Please feel free to stop by the Extension Office if you have any questions or need information. We are happy to help you!

Sincerely,

Sharla Sackman
Prairie County Extension Agent

<table>
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<tr>
<th>Bake Sale and Luncheon</th>
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<tr>
<td>February 9, 2018</td>
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<td>American Legion Hall</td>
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<td>9:00 a.m. - 2:00 p.m.</td>
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Recently, I was on six flights during the course of five days, with about 250 people per flight. Every flight had several people who were sneezing or coughing. So, I was exposed to at least 1,500 people all nestled in a pressurized tube breathing the same recycled air.

Now I wait to see if my immune system was able to fight germs efficiently during this cold and flu season.

On one flight, my neighbor was coughing and sneezing on me, in between snoring loudly. You can hold your breath only so long. I wedged myself up to the plane’s window. I had no exit, and I never have used a parachute, anyway.

I felt as though I was on one of those TV commercials surrounded by green fog emitted by sick people. Most of us have heard the reports about this year’s flu season that has resulted in numerous deaths.

According to the Centers for Disease Control and Prevention, people with the flu can spread the virus droplets 6 feet away through coughing and sneezing. The droplets can land in our noses or mouths, or be inhaled into our lungs.

You can spread illness a day before you have symptoms and about a week after you become sick. Sometimes people are infected and they don’t have the flu symptoms.

Now that I am home, I am waiting to see if my immune system was wearing its boxing gloves and fighting germs. I had a flu shot and now it was being tested.

Having a cold is different from having the flu. People with the flu may have a fever (often with chills), cough, sore throat, runny nose, body aches, headache and fatigue. Children with the flu also might have vomiting and diarrhea.

For some people, especially adults 65 and older, pregnant women and children under the age of 5, getting the flu can be life-threatening. People with diabetes, kidney disorders, lung diseases, asthma and several other chronic diseases also are at high risk for serious consequences. Pneumonia, bronchitis and sinus or ear infections might follow a bout with the flu.

No one enjoys feeling under the weather, so what can you do to help prevent colds and the flu? Try these tips to help your immune system resist colds and flu:

• Have a flu shot every year.
• Be sure to wash your hands regularly. Lather up for at least 20 seconds. Consider using an alcohol-based hand sanitizer when a sink is not nearby. The sanitizer should contain at least 60 percent alcohol. You can use a hand sanitizer if hand-washing facilities are not readily available, but be sure to use enough hand sanitizer and rub your hands until the alcohol evaporates.
• Stay home when you are sick to help prevent others from being exposed. Create a “sick room” in your house, and be sure to practice good hygiene, and wash dishware/glasses with hot, soapy water.
• Be sure to cover your coughs and sneezes. Use a tissue to “catch your sneeze” or you can sneeze or cough into your elbow instead of your hands. Toss the tissue so others do not have to dispose of it for you, and then wash your hands as a precaution.
• Avoid close contact with people who are ill.
• Stay home for at least 24 hours after a fever is gone.
• Stay well-nourished every day with a varied, nutritious diet.
• Get regular physical activity. Aim for 30 minutes per day on most days of the week.
• Get enough sleep.
• Check out the immune system resources at https://www.ag.ndsu.edu/nourishyourbody.

Try some chicken soup during cold and flu season. Some research has shown that warm, steaming broth may help clear congestion, and a mix of protein and vegetables in chicken soup may help your body repair itself.

This homemade chicken soup recipe is courtesy of the “Spend Smart Eat Smart” program from Iowa State University Extension. According to its analysis, a serving costs just 60 cents and is lower in sodium than commercial canned soups.

Recipe on next page……..
Non-Candy Valentine Ideas
By Audra Losey, MS RD from http://parentsavvy.com/

If you're looking for healthy Valentine alternatives for your kids to hand out, try these ideas. Add a cute note, and you're set.

**Bananas** – "I'm Bananas over You!"

**Apples** – "You're the Apple of my Eye!"

**Sugar free gum** – "I'm Stuck on You!"

**Stickers** – "I'm Stuck on You!"

**Valentine's pencils** – "You're the Write One for Me!" or "You're all Write!"

**Bubbles** – "I'm Bubbling over for You!"

**Ruler** – "Valentine, You Rule!"

**Glow Stick** – "You Make My Heart Glow!"

**Mini Bag of Microwave Popcorn** – "To a Pop Pop-ular Friend!"

**Teddy Grahams** – "Bear Hugs for My Valentine!"

**Orange** – "Orange You Glad I Picked You?"

**Bookmarks** – "You'll Never Lose Your Place with Me!"

**Gold Fish Crackers** – "You're a Great Catch, Valentine!" or "You are o"fish"ally my Valentine!"

**Temporary Tattoos with Valentine's Theme**

These ideas came from David City Public Schools Healthy Celebrations.

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**Our Favorite Chicken Noodle Soup**

2 chicken leg quarters
6 c. water
1/2 c. chopped celery (about 1 rib)
1/2 c. chopped onion
2 c. sliced carrots (about 4 carrots)
1 Tbsp. dried parsley
1 Tbsp. Italian seasoning
1 tsp. ground black pepper
1/2 tsp. salt
2 c. (2 1/2 ounces) whole-grain wide egg noodles

Place chicken and water in a stock pot. Bring water to a simmer (slow boil). Cook for 10 to 15 minutes, until chicken reaches 165 F. Clean and chop vegetables while chicken is cooking. Take the chicken out of water with tongs or fork, then cool in refrigerator about five or 10 minutes. Add vegetables and parsley, Italian seasoning, pepper and salt to the pot of hot water. Remove bones and skin from chicken and discard when it is cool enough to handle. Cut meat into bite-sized pieces and add to the pot of hot water. Bring to a boil. Add noodles when water is boiling. Cook according to package directions.

**Fruit Salsa with Cinnamon Crisps**

1 pint fresh strawberries, chopped
1 large banana, chopped
1 apple, chopped
1 kiwi, peeled & chopped
1/4 cup orange juice
6 Tablespoons sugar, divided
1/4 teaspoon nutmeg
1 1/4 teaspoons cinnamon, divided
2 (7 inch) flour tortillas
Cooking Spray

1. Preheat oven to 350°
2. Combine strawberries, banana, apple & kiwi. Mix orange juice, 1/4 cup sugar, nutmeg & 1/2 teaspoon cinnamon. Toss with fruit. Chill
3. Cut each tortilla into 8 pieces. Arrange tortillas on baking sheet. Lightly coat tortillas with cooking spray.
5. Bake for 6-8 minutes or until lightly browned.
6. Serve with fruit salsa.

NOTE: Let your imagination decide which fruits to use. Any fruit will work but you may have to adjust the amount of sugar.
5 Common Product Combinations You Should Never Mix

1. Bleach + Vinegar = Toxic Chlorine Gas
   Why: Adding any weak acid to bleach will release toxic chlorine and chloramine vapors.
   The worst that could happen: You can get a nasty chemical burn, especially of your eyes and lungs.

2. Ammonia + Bleach = Toxic Chloramine Vapors
   Why: Inhaling the vapors could cause respiratory damage and throat burns.
   The worst that could happen: If ammonia is present in excess, toxic and potentially explosive liquid hydrazine may be formed.

3. Rubbing Alcohol + Bleach = Chloroform
   Why: "Ordinary household bleach contains sodium hypochlorite, which reacts with ethanol or isopropyl alcohol to produce chloroform, hydrochloric acid, and other compounds, such as chloroacetone or dichloroacetone."
   The worst that could happen: You could damage your nervous system, eyes, lungs, skin, liver, and kidneys. Extremely high levels of chloroform exposure may result in death, while lower levels could result in dizziness and nausea, according to the EPA.

4. Hydrogen Peroxide + Vinegar = Parecetic Acid
   Why: You can use them on the same surface separately while cleaning, but don't mix them in the same container. You'll create paracetic acid which, despite being an effective sanitizer, is potentially corrosive and irritating.
   The worst that could happen: The health risks aren't well-known, but in high enough concentrations, paracetic acid "is very irritating to the skin, eyes, nose, throat, and lungs, with the potential for causing permanent scarring of the skin, cornea, and throat."

5. Baking Soda + Vinegar = Ineffective Cleaning Solution
   Why: Baking soda is basic, vinegar is acidic. When you put them together they neutralize one another and you get mostly water and sodium acetate. But really just mostly water.
   The worst that could happen: you could waste your time cleaning your entire kitchen or bathroom using a solution that doesn't do anything at all.

Environmentally Friendly Cleaning Alternatives:

- Salt, Borax, Vegetable Oil, Lemon Juice, Baking Soda, Hydrogen Peroxide, Rubbing Alcohol

- Bleach Substitute: ½ cup borax in water

- Dish Washer Detergent: Mix equal parts borax and baking soda and store in tightly sealed container (2tsp/load). Use vinegar in the rinse cycle. For hard water, double the amount of baking soda

Homemade Spray Cleaner Recipe:
Mix in a sprayer bottle:
- 1 cup white vinegar
- 1 cup water

In the kitchen, use vinegar-and-water spray to clean countertops, lightly soiled range surfaces and backsplash areas.
In the bathroom, use vinegar spray cleaner to clean countertops, floors, and exterior surfaces of the toilet. For really tough bathroom surfaces such as shower walls, pump up the cleaning power by removing the sprayer element and heating the solution in the microwave until barely hot. Spray shower walls with the warmed solution generously, allow to stand for 10 to 15 minutes, then scrub and rinse. The heat helps soften stubborn soap scum and loosens hard water deposits.

Homemade Glass Cleaner Recipe:
Mix in a sprayer bottle:
- 1 cup rubbing (isopropyl) alcohol
- 1 cup water
- 1 tablespoon white vinegar

For more recipes go to: [http://organizedhome.com/clean-house/pantry-recipes-homemade-cleaning-products](http://organizedhome.com/clean-house/pantry-recipes-homemade-cleaning-products)
Solid Finances is series of free financial education webinars beginning this fall and continuing through the winter and spring. The webinars are designed to empower you to take control of your finances by improving your knowledge of personal finance topics. This year's topics will range from Money Management, Student Loans, Retirement to Investor Protection. A full list of this year's sessions is available at http://www.msuextension.org/solidfinances/schedule.html. The sessions will be taught by faculty from the University of Idaho, South Dakota State University and Montana State University. Although the series is free, registration is required.

More information can be found on the Solid Finances website at: http://www.msuextension.org/solidfinances/

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<th>Date</th>
<th>Topic</th>
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<tr>
<td>February 7</td>
<td>Making the Most of Your Employer Defined Contribution Plan</td>
<td>Joel Schumacher, Montana State University Extension</td>
<td>Are you getting the full benefit of your 401k or 403b retirement plan at work? Many American workers are not taking advantage of the &quot;free money&quot; that is offered to them. This session will help workers understand the benefits offered to them.</td>
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<td>February 14</td>
<td>Withdrawal Strategies</td>
<td>Luke Erickson, University of Idaho Extension</td>
<td>You've done it! You did what you were supposed to do and saved for retirement over the years. The time for retirement is fast approaching. There are a lot of questions, not the least of which is, &quot;Do I have enough?&quot; and &quot;Will my family and I be ok?&quot; Put your mind at ease. Regardless of the size of your nest egg this session will help you crunch your numbers, determine a reasonable date for retirement, identify how much you will have to live on during retirement, and how to make your money last a little longer than you thought.</td>
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<td>February 21</td>
<td>Home Buying</td>
<td>Carrie Johnson, North Dakota State University Extension</td>
<td>Thinking of buying a home? This session will give an overview of steps that need to be taken and the process of buying a home from making an offer to closing.</td>
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<td>February 28</td>
<td>Home Loans</td>
<td>Joel Schumacher, Montana State University Extension</td>
<td>Buying a house is big purchase and understanding your home loan options can be as important as negotiating the price of your house. This session will look at some different types of home loans and compare their features. After this session participants will be able to evaluate what type of loan is best for their situation.</td>
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Suicide Awareness

Presentation

The Prairie County Health Department is honored to bring Jill Wilson to the Prairie County community to discuss her experience and educate our community in suicide awareness and intervention.

Jill Wilson is a speaker with a powerful message. She is eager to share her story with others. Jill lost her son to suicide in July of 2009 and is committed to educating others on suicide awareness including QPR - the myths, signs and facts of suicide. Her experience, insight and love leads her to share her message in a passionate way that will educate, inspire, and comfort those who have the opportunity of hearing her speak. Her goal is to reach out, inform, and help others make positive decisions.

When: Wednesday, February 21st, 2018 12:00 p.m.

Where: Evelyn Cameron Heritage Center, 212 Laundre Ave, Terry, MT

**A free light lunch will be provided, please RSVP by February 14th via email: pchealth@midrivers.com; phone: 852-0622; or Facebook Messenger: Prairie County Health Department**
Whether it’s forests or backyard trees, keeping them healthy is a priority for any landowner. For someone who grows trees for harvest, perception of tree health might be influenced by whether or not trees are growing at an acceptable rate per acre to produce a marketable product such as sawlogs. However, for someone who wants an ornamental backyard tree, perception of tree health might be more aligned with a pleasing appearance and provision of shade, privacy, flowers in the spring or fruit in the summer.

But what does the term “tree health” actually mean? Although each person’s objective for growing a tree might be different, assessing whether a tree is healthy requires examination of the same tree features.

Like any green plant, trees need carbon dioxide and oxygen from the air to conduct photosynthesis and respiration. Trees also need sunlight for energy to convert carbon dioxide into sugar, a warmer than freezing temperature, water, and nutrients. Of all these factors, a landowner can basically only influence how much light, water, and nutrients a tree can obtain. Capturing sunlight is the primary reason a tree grows tall and also helps determine the shape of its crown. Although some tree species can tolerate shade (such as maples, lindens and true firs) all prefer full sun and will grow crowns in the direction that maximizes access to light. When shaded by other trees, buildings or topography, trees will develop very one-sided or crooked crowns, which reduces growth, and can predispose them to wind and snow damage. The healthiest tree is one that has at least $\frac{1}{2}$ to $\frac{2}{3}$ of its total height cloaked in leaves or needles, and is symmetrically-shaped like an umbrella, lollipop, or cone.

Deciduous or broadleaf trees tend to grow into an umbrella shape, which is why they are preferred as backyard shade trees. Common Montana broadleaf trees that include native and introduced species are ashes, maples, lindens, poplars, horsechestnuts, and flowering crabapples. Evergreen conifer species common in Montana include spruces, pines, junipers, and arborvitae. These trees produce a dense crown of needles which are held year-round, making them common planting choices for privacy, noise and wind screens. Conifers are also better able to conserve water and survive on sites that suffer summer drought, which is why the majority of species in our native forests are conifers.

A tree’s root system plays the critical role of acquiring nutrients and water, but this portion of the tree is not accessible to observe directly to assess health. The tree crown, alternatively, is fairly easy to view and reflects the overall condition of the tree. A well-shaped crown is the first indicator of health and reflects that the tree is growing well.

The condition of the leaves and needles is the second indicator for tree health. Leaves and needles should be dark green in color, unless it is a species that has been specifically cultivated for purple or red leaves—of which most are in the maple, ash or crabapple family. "Thin" looking crowns can indicate poor leaf or needle retention, a condition often appearing in the top of the tree first (Figure 1). Drought stress often appears first at the tips of branches and the upper crown of the tree because they are the furthest...
from the water source at the roots. Prolonged drought often causes significant crown dieback.

Drought symptoms can be caused by a lack of water in the soil, root dieback from improper planting or soil disturbance, or some disruption in the water flow from the roots to the leaves. Examining the stem of the afflicted tree for injuries should be part of the health diagnosis. Basal injuries from a lawnmower or string trimmer are commonly found at the base of trees exhibiting crown dieback (Figure 2, middle). Another similar injury around the tree stem results from rope or cable tied and forgotten, which eventually inhibits stem growth and water transport. Stem-boring insects or diseases can also cause a thinning crown, though their damage can be more difficult to recognize and diagnose. Similarly, root diseases or injury can cause drought-like symptoms in the crown because the afflicted roots have a diminished ability to absorb and transport water. Root-related issues are often hypothetically diagnosed because of the absence of any other kind of injury to the stem or leaves. Treating root diseases is difficult because of limited diagnostic opportunities and the complexity of soil chemistry and structure.

Finally, chronic leaf or needle discoloration (Figure 3, right) is often caused by soil chemistry that does not allow for adequate nutrient absorption by the root system. Alkaline soils are often the culprit, which is very difficult to remedy. If you consider a volume of soil the size of a phone book, the surface area of the soil particles is at least as large as the surface area of all the pages of the phone book. All or the majority of this surface area (phone book pages) would need to be altered to change the chemistry of the soil.

In conclusion, the crown of a tree, based on shape, growth rate, and leaf density/color, is a good indicator of tree health. Some conditions affecting tree health can be modified such as watering backyard trees or thinning an overly dense forest, whereas other conditions such as genetic predisposition are difficult to change. For new planting projects, the first step toward tree health is to make sure you have selected the right species for your climate, soil and desired site function. The second step is to make certain you get healthy seedlings (good color, not root-bound in the container, and a balanced shoot-to-root ratio). The third is to plant trees correctly; they should be dormant, have roots properly located into the soil, and not be planted too shallow or too deep.