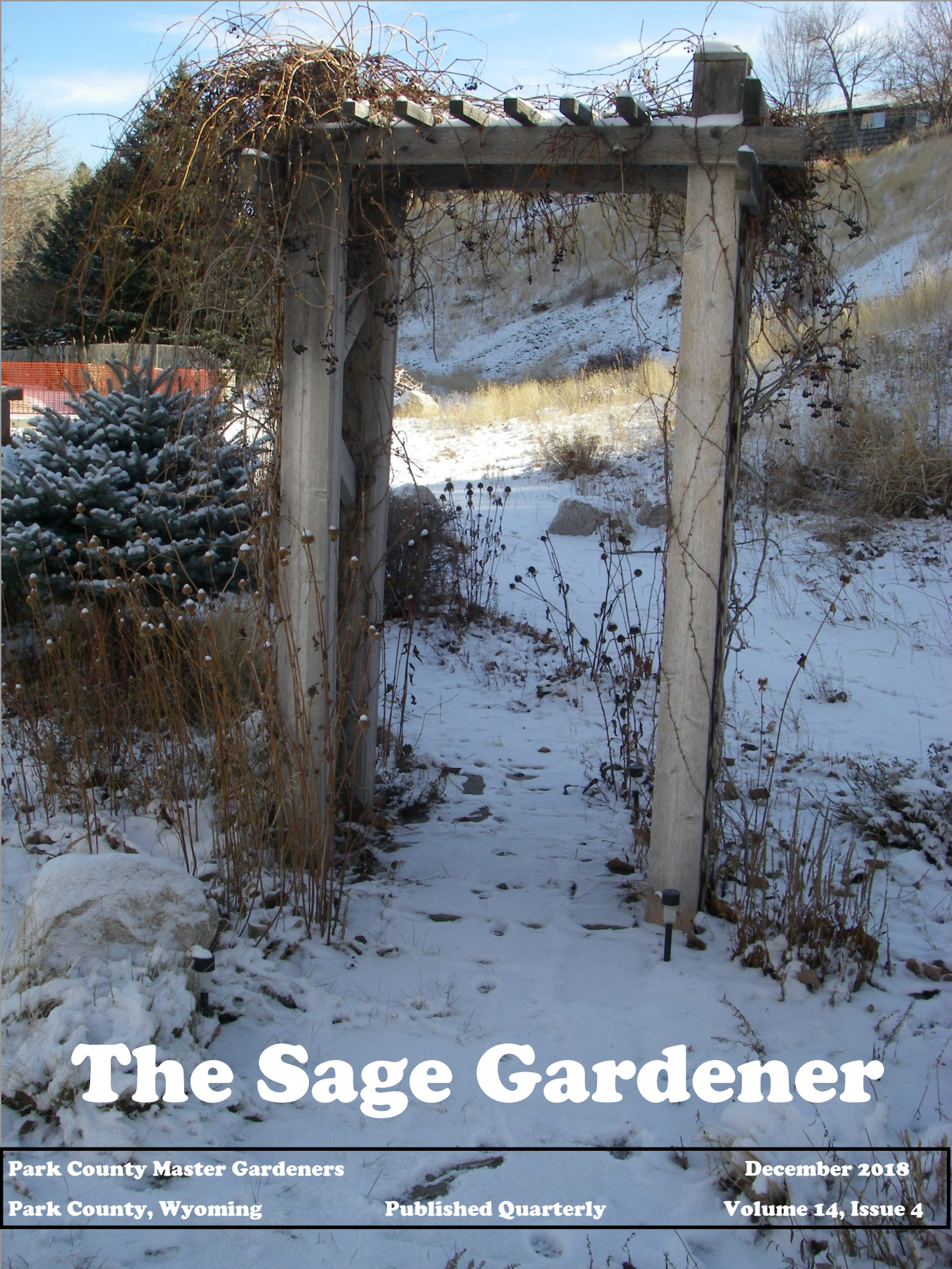




The Sage Gardener

Park County Master Gardeners

Park County, Wyoming

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Calendar

January—No meeting

17—Community Forestry Partnership meeting, PVCE, 5:30-7 p.m. Powell

30-Feb1 — WY Groundskeepers & Growers Assoc. Conference,
Casper, more info at: www.wgga.org

February—No meeting

March 4— MG Library program, 2-3 p.m. Powell

PCMG Meeting, 7 p.m.

11— MG Library program, 2-3 p.m. Powell

18 — MG Library program, 2-3 p.m. Powell

25 — MG Library program, 2-3 p.m. Powell

President's Podium

Last night as I lay sleepless due to my very sore muscles and bones from shoveling, I began to contemplate living in Florida. I was a student in college and lived there seven years. I learned a great deal about the advantages of snow. My first year I rented a tiny apartment. I came into the kitchen one night for a glass of water and my white Formica table was black. I turned on the light and hundreds of cockroaches scattered and the table was white. That was my introduction to snowless climates.

Even though Florida did have seasons, they were not pronounced. I found I missed the seasons. Spring with life erupting from the earth, renewal. Summer with the crops growing, apples and grapes, the beginnings of delicious salads and meals. Fall with the colors and busy times with harvest, freezing, canning and supplying food for family and others in need, and, finally, winter, a little less frantic to contemplate what went right and wrong and what to do next year.

Enjoy your snow and season of joy. We'll see you in March.

— Denise

2019 Meeting Dates

March 4—Powell

April 2—Cody

May 6—Powell

June 3—Cody

July 2—Powell

Aug 5—Cody

Sept 2—Powell

Oct 7—Cody

Nov 4—Powell

Dec 2—Powell Holiday Party

Where Have We Been Lately ?



Keith and Suzanne Larsen
put Canal Park
to bed for the winter.
Thank you!



Henry Yaple and
Sandy Frost put the
Powell
Community Garden
to bed for the winter.
THANK YOU!



Winter Green

Dr. Karen Panter

U of WY Extension Horticulture Specialist



In the midst of December snow, many of us wonder when we'll see something green again. How about providing some TLC for those indoor plants? Now is a great time to check them all to make sure they are healthy. Most interior plants grow slowly during the winter months, but they are still active. Clean them up a little bit by removing old and dead leaves and flowers and trim stems and branches that may be broken or dying back. Give them a shower to wash off dust. And pay attention to their water needs! Indoor plants may actually require more frequent watering in the winter, especially if they are near a south or west window. The reason is the sun coming through our windows is very low and can dry out those plants.

What about outdoors? Fall is a great time to heel in perennials and woody plants that may be in containers. Dig a trench in a protected spot, deep enough so pots can be buried up to their rims. Make sure the soil in the containers is moist, then set the pots in the trench, push soil around them, and keep the area moist all winter. This is easy if there is snow cover, but gardeners may need to get out the hose or watering can during warm dry periods in winter. Plants in moist soil are more able to survive winter doldrums than those in dry soil.



Late in winter is a good time to check woody trees and shrubs for dead or broken branches. While woody plants are still dormant, but not frozen, carefully prune out branches that have died back or have broken. And while you've got the tools out, have them sharpened and make sure they're clean too. Next summer you'll be glad you did!



Woody Notes

The Champion Bur Oak tree in Cody has been supplanted by a tree in Lander. However, there may be two other Champion Trees in Park County. An American Elm on Lane 11 1/2 and a Black Walnut on Lane 13 in the Willwood will probably measure up.

The Wyoming Forestry Division's Community Forestry Partnership Cost-Share Grant has enabled programs such as "Rooted in Cheyenne", a citizen-run tree planting program to flourish. There will be a PVCE meeting January 17 at 5:30-7p.m. in Powell to learn about the program and form a citizen committee. Check the PVCE schedule.

Wyoming Water & Climate Web Atlas

At

www.wrds.uwyo.edu/map/#



Yellowstone Arboretum Newsletter by Scott Meyers

www.botanicalsocietyofzoomontana.org/arboretum-newsletter

Plant Hardiness

Dr. Leonard Perry, Extension Professor
University of Vermont Extension

Plant hardiness is an often misunderstood topic deserving special discussion. It is not as simple as it may appear. Often oversimplified, not taking into account all the possible factors involved, the question of whether or not a plant is hardy may lead to a wrong answer and disappointment if the plant dies or does not bloom.

Hardiness is genetic. That is why some plants are hardier than others, even why some cultivars are hardier than others of the same plant. They may have been bred or selected as being hardier clones. To confuse this further, plants adapt or change genetically over time to their climate. This is why a species growing in a southern location may not be as hardy as the same species growing in a northern location. This may be a consideration when buying plants, or ordering them through the mail.

Roots, stems, leaf buds, and flower buds usually all are hardy to different temperatures. This is why many perennials die to the ground in winter, only to have their roots survive and produce new shoots the following spring. It is also why forsythia often have leaves but no flowers. The flower buds, being less hardy than the leaf buds, are killed by cold. If flowers appear to a particular height, but not above, this represents the depth of snow cover that protected the flower buds during the killing cold.

Hardiness is a function of location in a different sense as well. A particular plant, such as impatiens, may be perennial in a southern or warmer climate, only to be annual if moved to a colder climate. It is hardy, but only to a certain temperature. Keep this in mind when books or articles, especially those from other countries, call a plant annual or perennial.

The most discussion, though, revolves around hardiness zones. These are geographic zones shown on maps that share the same range of average annual minimum winter temperatures. Few references list hardiness zones for heat — in other words, how high a temperature can a particular plant endure. Maples, lilacs, and many of our herbaceous perennials cannot take the heat of hot climates, or need more cold than they get there to bloom properly.

To begin, check to see what hardiness map you are using. There are at least three in gardening publications: one from the Arnold Arboretum in Boston; one from the USDA based on data from about 1930 through 1960 and seen prior to 1990; and a revised USDA map seen from 1990, based on more recent data reflecting a period of cold extremes since the mid-1970s. The same numbered zone represents different temperature ranges on the older USDA and the Arnold maps, but they are the same on the older and the new USDA maps. Only the location of zones on the map has changed on the new USDA version. (Most areas have become colder!)

As already mentioned, these zones are averages, which means some years may be colder. Even though a plant may be listed as hardy in a particular zone, an unusually cold year may come along and kill it. If a plant is listed as hardy in a zone or two colder, it is likely hardy. On the other hand, a plant listed for one or two zones warmer may also grow in a site under certain conditions.

—continued

Plant Hardiness, continued

These conditions, which determine whether a plant will survive in a particular site, together are known as the microclimate. They include soil type, exposure to sun and wind, and other factors, such as slope and proximity to buildings. After the zone in which a site is located, or macroclimate, is determined, these microclimate factors should be considered.

If a soil is heavy, wet, of low pH or low fertility, or in general not suited to the plant, it can cause stress that may result in winter injury. On the other hand, if the soil is too fertile, the plant may grow late into the season — not hardening off properly. This, too, may result in winter injury or lack of hardiness. Amendments such as compost or peat moss can be used to improve poor soils.

Mulches can be used to moderate soil temperatures, keeping them from getting as cold as they might otherwise and possibly injuring roots. They are especially useful on exposed sites where protective snow cover may blow off. Sites exposed to winter winds, usually from the north and west, can cause evergreens to dry out, resulting in winter injury, such as leaf burn. A protected site, or shielding plants with a burlap screen in an exposed one, helps prevent this. Sites exposed to early morning sun in winter may result in "frost cracking" of bark of some trees, especially young ones. This results from the rapid heating of frozen bark by the sun. Tree wrap or guards help prevent this.

If a plant is near a building, it may be in a warmer hardiness zone in that spot. This may be from heat loss by the building, or the sun's heat absorbed by it.

A slope is often typical of a site farther, perhaps by several hundred miles for steep slopes, in the direction in which it faces. In other words, a steep southern facing slope may be a whole hardiness zone or two warmer than adjacent level areas. This is important if a site is on a hill or in a valley. A hillside may also have airflow down it, resulting in less chance of frost.

By this point, buying a hardy plant may seem totally confusing, but it need not be. Just keep the hardiness zones and their limitations in mind when choosing a plant. Then keep the microclimate factors in mind when placing it for planting. Although this will not guarantee hardiness, as mother nature can't be predicted, it should result in minimal loss to plants from winter injury.

Tree Growth and Basic Anatomy

Dr. Les Werner, UW Stevens Point

Northern Rockies Tree School

Cody, Wyoming

Northern Rockies Tree School kicked off with a half-day presentation by Dr. Les Werner of UW Stevens Point. Dr. Werner discussed anatomy and growth of trees in great detail. Highlights follow.

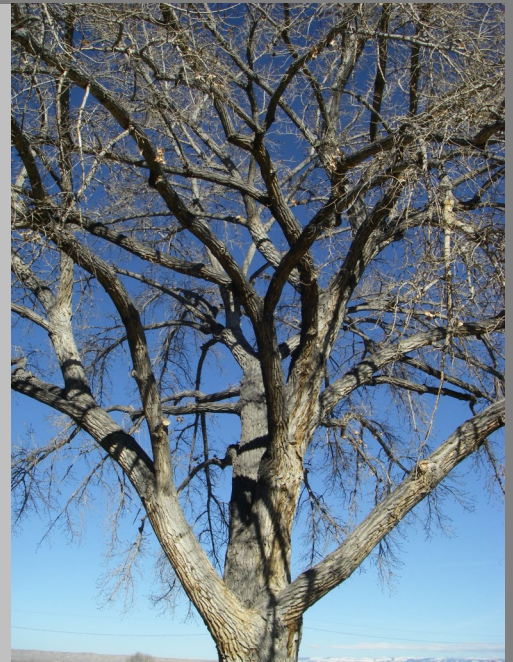
Trees are long-lived, perennial, woody plants. Growth occurs on a regular/annual basis. There are three types of growth in trees: elongation, wood formation, and branches. He also brought tree buds for us to dissect and view under microscopes. Differentiated and undifferentiated meristematic tissue was visible.

Primary growth increases the height of the plant or length of a stem/branch/root. It is a result of cell division in the apical and axillary meristems. Secondary growth increases the diameter of the stem/branch/root. It occurs as a result of cell division in the vascular and cork cambiums. Under the bark is the vascular cambium. The vascular cambium of a tree is one cell thick and produces cells to the inside and outside.

Dr. Werner talked about what it takes for a tree to produce growth. It takes 500 grams of water to produce one gram of tree tissue. Thus, the xylem, which conducts water from the roots to every cell, is very important. There are three types of xylem cells. It also takes a water pressure gradient to move water from the soil, to roots, to the top of the tree. The tallest tree in the world is 331.4 feet tall in Australia. Imagine pumping water up to the top!

Tree cell growth is affected by outside forces such as compression or tension. Trees display a reaction to accumulated stress on the trunk with a change of direction, on branches, at a defect, or where they contact some outside structure. Trees affected by outside forces are usually not suitable for lumber.

You can find all the presentations in Facebook — northern rockies tree school past events 2018



Feature Page — Linda Pettengill

Garlic Cheese Grits

Linda's recipe is from our Holiday Potluck Dinner in Cody on December 3, 2018.

Cook 1 cup grits according to directions on the box except cut salt to 1/2 teaspoon.

Beat 2 eggs in a cup. Finish filling the cup with milk.

Chop 1 small box Velveeta cheese and
1/2 C. butter. Add to grits.

When all is melted, add eggs and milk. Mix.

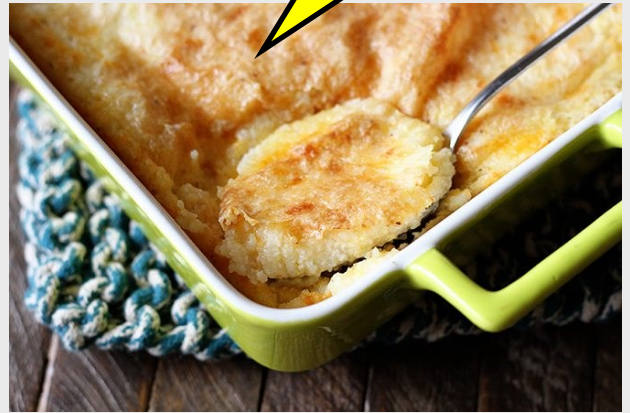
Sprinkle with garlic salt to taste.

Pour into greased loaf or other baking dish.

Sprinkle with grated cheese and paprika.

Bake at 375 F until set.

There
was none
left !



Linda's wreath
creation
for the
Riley Arena auction.

2019 International Master Gardener Conference

Penn's Woods: Digging into our Roots

Valley Forge Casino Resort, Valley Forge, Pennsylvania

Pre-conference tours June 16-17

Main Conference June 18-21

Post-conference tours June 21

Over 30 featured speakers / Field Study Days at public gardens

www.internationalmastergardener.com

Happy Birthday !

None in this quarter!

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