GROUNDED

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INSIDE THIS ISSUE

DELICIOUS GOLD TOMATOES . . . *By Duane Pitts*

I purchased two Aztec gold tomato plants at our annual Master Gardeners plant sale on May 5. The identifying tag indicated they were slightly larger than cherry tomatoes and smaller than Romas. Never having tasted gold tomatoes before, I thought, "Why not? I will give it a go."

I planted them next to some green peppers and other tomato varieties. I thought they would be tall and bushy. Some of the literature said they grow to 10 feet tall. Nope, not mine. They are short and dense. The fruit is tightly packed in groups of 10 to 15 tomatoes on long stems tightly hugging the plant while the tomato plant itself hunkers down close to the ground. The tomato cage is larger than the tomato plant!

What they lack in height, though, they make up in taste. Oh my goodness, are they ever sweet, not tart or acidic as some tomatoes can be. Simply wonderful. My wife said she had never tasted a better tomato, and, coming from South Georgia, she would know all about tomatoes. She does not like cherry tomatoes, but because these are so firm and sweet, she finds them simply delicious.

These small gold tomatoes began their historic trip across the world in Peru among the ancient Incas who thought they were wild vines, and worked their way up to the Aztecs of Mexico, who thought the "tomatl" was a symbol of good fortune from the gods. Later, many Europeans believed tomatoes were evil, unhealthy, and poisonous. Well, poisonous, yes, because many living in the crowded cities of the early 16th Century used them as ornamental plants, which were doused every morning with the contents of the bed pan. Anyone eating the fruit became ill, to say the least.

It took the Italians to recognize their value as a food, especially after the Borgias were fond of their great taste. Eventually, the little wild plant from the Incas' fields ended up in America in various sizes and colors. And two such wild plants ended up in my garden this year.

Will I plant Aztec Gold next year? You bet.

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Duane's Aztec Gold Tomatoes

Growing Conditions in the Columbia Basin . . . *By Barbara Guilland*

The Columbia Basin of Washington State is a place of lush gardens, native and drought-tolerant vegetation, and a variety of crops grown to feed our country and sent to other countries as well. The climate in this area is generally considered high desert, but the ground is fertile. With the help of the Columbia Basin Irrigation Project, miles and miles of desert plains have been converted to irrigated cropland, parks, and home gardens.

- **Climate:** The climate in this area has four seasons: winter, spring, summer, and fall. Temperatures can range from the occasional -20°F in the winter, to temperatures upwards of 100°F in the summer. In addition, wind speed plays a factor in gardening. While the wind is fairly mild during the summer months, high winds in late spring and fall can pose complications for successful growth of garden and landscape plants.
- **Soil:** Typically, the soil is quite fertile with adequate nutrient management. However, depending on where you live in Grant or Adams Counties, the soil could be silty, sandy, rocky, shallow or deep.
- **Growing Season:** The growing season is long, but winter conditions are not conducive to gardening. Generally speaking, the growing season begins in late February for plants like lettuce, onions, garlic, and other cold-loving plants. At times, there may still be snow on the ground as late as early March. The growing season typically ends with the first heavy frost, which can come in mid to late October to mid to late November, depending on weather conditions.
- **Humidity:** The limiting factor most often for growing beautiful plants, trees, and shrubs in our area is not cold, but humidity and lack of water. The porous soil and dry air make life hard for certain species of shrub and trees. As gardeners we learn to protect plants from the heat and dry winds, add the missing organic materials to our soil, and mulch to retain water.

Barbara's yard 2013

- **Hardiness Zones:** are general guidelines of the temperatures a plant can survive. Zone 5 plants can survive winter temperatures no lower than -20°F (-28° C.). If a plant is hardy in zones 5-8, it can be grown in zones 5, 6, 7 and 8. It would probably not survive the cold winter temperatures in zone 4 or lower. It also could probably not survive the hot, dry summers and inadequate time for dormancy in zone 9 or higher.

Reference

Gardening information for Grant County https://extension.wsu.edu/grant/gardening/master_gardeners/

Consider Fall Planting Conifers for Shape and Color . . . By *Diane Escure*

With the hot days of summer beating down on us now, it's hard to imagine that fall will soon be here with its cooler temperatures and shorter daylight hours. From a gardening perspective, it's a good time to consider planting that tree or shrub you've been thinking about putting in the earth. It is also a good time to consider planting because it's still warm during the fall and there's plenty

of moisture to keep the roots wet before the ground freezes, rather than trying to store that plant aboveground over the winter.

Bristlecone Pine. Photo Wikipedia

One versatile category of plants to consider planting are conifers, which come in a variety of sizes, shapes, and colors and provide year-round color, an especially welcome sight when deciduous trees have lost all their leaves. They bear their seeds in woody structures often coned-shaped in many different sizes. With over 600 species plus many cultivated varieties), conifers are found in many regions of the world: some of the largest, smallest, and oldest trees and shrubs are conifers. One of the longest-lived conifers is the Great Basin bristlecone (*Pinus longaeva*), which is more than 5,000 years old. Conifers are often called evergreens because most have needles or scales that stay green and don't fall off the tree in autumn. The exceptions include larches, dawn redwood, and bald cypress, which are deciduous conifers.

Besides making great additions to landscapes, conifers have many diverse uses including making dyes, providing building materials, making glue, as well as becoming ingredients perfumes and medicines and more. Pine and spruce trees can be made into wood pulp used to manufacture newspapers, magazine, toilet paper, shipping containers, corrugated boxes, and grocery bags. Ponderosa pine can be used for making turpentine. Pines are also used for wooden flooring, and pencils are made from California cedar. Red spruce (*Picca rubens*) was used by early American ship captains to brew spruce beer, high in vitamin C, to prevent their sailors from developing scurvy. Today, conifers are used in seasonings, food, and alcoholic beverages.

Best of all, conifers are hardy and well-suited to our climate and add interesting design elements in the garden. Consider, for example, planting compact, slow-growing conifers to accent a corner, frame a doorway, provide a ground cover, or add winter interest. Here are some conifers that do well in eastern Washington.

(Note: The Department of Agriculture (USDA) geographically divides areas with different climate conditions into hardiness zones to indicate what plants can survive winter. Each zone is determined by elevation, latitude, and proximity to the coast to provide a range of average annual minimum low temperatures. However, the actual minimum low temperature can vary in any given year. It may never reach the same low range, or it may fall lower. If it falls lower, the plant may not survive. The hardiness zones indicated for the plants listed below range from Zones 2-5, hardier than the Zone 6b category given for most of our area. Zone 3: -40° to -30°F; Zone 4: -30° to -20°F; Zone 5: -20° to -10°F; Zone 6b: -5° to 0°F.)

Dwarf Balsam Fir (Abies balsamea 'Nana')

- Zone 3 Width: 3 ft
- Dense globose form
- Light green new growth contrasts with dark green older foliage; can take shade.

Photo: landscapeplants.oregonstate.edu

Golden Spreader Nordmann Fir (Abies nordmanniana)

- Zone 4 Width: 5 ft
- Dwarf spreader to 4 ft; soft, bright yellow winter foliage
- Greener in summer; best in full sun; best not sheared.

Photo: landscapeplants.oregonstate.edu

Blue Prostrate Noble Fir (Abies procera 'Glauca')

- Zone 5 Width: 4 ft
- Prostrate version of native Noble fir; steely-blue foliage
- Soft textured needles; shear any upright shoots to maintain form

Photo: conifersociety.org

Threadleaf false cypress (Chamaecyparis pisifera 'Golden Mop')

- Zone 4 Width: 4–5 ft
- A ground-hugging mounder
- Mop-like stringy foliage stays golden yellow
- Best in full sun

Photo: landscapeplants.oregonstate.edu

Globe blue spruce (Picea pungens 'Glauca Globosa')

- Zone 2 Width: 6 ft
- Beautiful silver blue prickly needles
  Needs full sun
- Widely adaptable
- Very drought tolerant

Photo: extension.iastate.edu

Thuja occidentalis aurea 'Golden Thuja'

- Zone 2 Width: 3 ft
- Evergreen with lacy green foliage tipped in yellow-gold. Often used for screening/hedges
- This fast-growing arborvitae can bring a year-round color into northwest landscapes.

Photo: landscapeplants.oregonstate.edu

Blue Rug juniper (Juniperus horizontalis 'Wiltonii')

- Zone 3 Width: 5-6 ft; Height: 4-6 inches
- Ground cover
- Changes from silvery blue in summer to purple bronze in winter
- Keeps color in summer without any irrigation and serves as an alternative to lawns.

Photo: plants.ces.ncsu.edu

Pacific Yew (*Taxus brevifolia* Nutt)

- Zone 4 Width: 3 ft
- Understory tree (shrub in eastern WA) in various mixed coniferous forests.
- It persists for decades unless the overstory is removed exposing it to full sunlight.
- Slow growing (up to 49 ft), prefers moist soil.

Photo: pugetsound.edu

Rocky Mountain Juniper (Juniperous scopulorum)

- Zone 3 Width: 1 to 2-1/2 ft
- Native perennial tree
- Small drought-tolerant
- Grows to 15 to 40 feet

Photo: oregonstate.edu

Dragon's Eye white pine (Pinus parviflora 'Ogon Janome')

- Zone 5 Width: 6 ft
- Compact form
- Blue-green needles with bands of yellow
- Needs partial shade in hot areas

Photo: hortuconn.edu

Moon Frost hemlock (Tsuga canadensis 'Moon Frost')

- Zone 3 Width: 3 ft
- Excellent mounding habit
- Beautiful white new growth over older green
- Best not sheared

Photo: oregonstate.edu

Conifers have been an inspiration for people for hundreds of years and have stirred many a poetic soul:

"Who leaves the pine tree, leaves his friend, unnerves his strength, invites his end."

—Ralph Waldo Emerson

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http://conifersociety.org/conifers/designing-with-conifers/
Valerie Jean Rose, Conifers for Fall Color, October 14, 2011, wsu.edu
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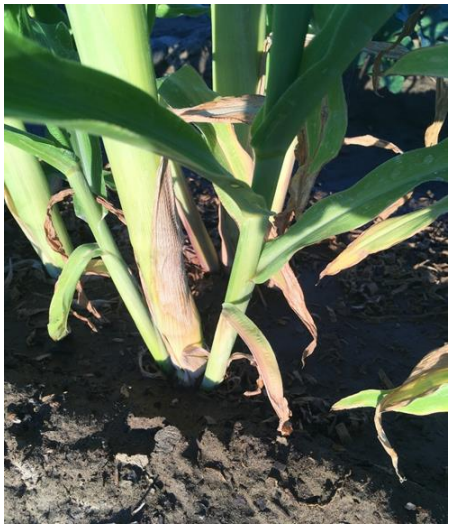
Pinophyta, Wikipedia

What do I do about corn suckers? . . . *by Duane Pitts*

My father grew corn in his garden, but I never paid much attention to how he tended to it. I just ate it when it was ripe. However, now that I am trying to grow corn for the first time at age 71, I am starting from scratch, so to speak.

I decided to experiment this year with a modified "3 Sisters" approach adopted by the Native Americans. Instead of planting corn, beans, and squash together (the "3 Sisters"), I chose to plant beans with the corn in one garden location and then corn without beans in another spot. The corn growing among the beans is doing fine, ready to tassel or beginning to tassel and NO suckers! Yeah! Then I look at the corn growing by itself, ready to tassel, but SUCKERS abound.

I know to trim off suckers on trees, but what do I do about corn suckers at the base of the main corn stalk? (See photos of the sucker shoots at the base of corn stalks in my garden right.) So, I researched agricultural extension sites, including the WSU Extension library: I don't need to worry about suckers. Whew!



Suckers tend to appear at the stalk base as offshoots when there is excessive fertilizer or there has been damage to the main stalk early in its growth, usually from a late frost. Suckers are neither good nor bad for corn – they just are.

Farmers used to think that suckers were bad, but that is no longer the thought. You don't have to remove suckers. Removing shoots 12 inches or more in length can weaken the plant and stunt growth because the shoots provide nutrients to the main stalk when needed. Removing suckers can cause disease to set in. Learning that weakened stalks and disease can reduce corn yield, I decided not to cut the suckers out. I want all the corn I can get! If the suckers do not produce corn, I am fine with that. However, if they do, that will be a bonus. More corn ears from a single seed is better than bank interest.

The moral: Don't fret over corn suckers. You may pluck more ears of corn by leaving the suckers where they are.

References

Daniels, Catherine. "Vegetables: Growing Sweet Corn in Home Gardens," Fact Sheet FS104E. WSU Extension. http://cru.cahe.wsu.edu/CEPublications/FS104E/FS104E.pdf

Nielsen, R. L. Tillers or "Suckers" in Corn: Good or Bad? http://www.kingcorn.org/news/articles.03/Tillers-0623.html. Agronomy Department, Purdue Univ.

Ephrata Pollinator Garden Continues to Rock! . . . *By Mark Amara*

The pollinator border at the Ephrata Community Garden was revitalized and looks tremendously better after four dedicated Master Gardeners (MGs) clipped plants, and pulled and dug out weeds along the north and east sides of the fenced unit located on C Street SW. Though there are fewer local MGs to tend the garden with some care and attention, the site has been revitalized, the space has been tidied up, and the plants have been put on a timed watering schedule. The plants represented are excellent examples of native and drought-tolerant flowering pollinators. These types of plants help support

biodiversity, provide cover and food for wildlife, add color to our landscapes, help with weed control, provide pollen for bees and other insects, and help promote healthy and higher yielding crops.

Pollinator Garden earlier in mid-July before cleanup

In late July, Marylou Krautscheid and Mary Lou Hobson did the majority of the cleanup inside and outside the fence in an area bordered by rocks. They were followed up in mid-August by Mark Amara and Duane Pitts, who dug out and pulled up the remaining visible thistle, morning glory, Tree of Heaven, China Lettuce and Siberian Elm in the Master Gardener area of responsibility. Kris Nesse made sure the plants are now on a regular watering schedule.

Duane Pitts marveled at the thoroughness of the effort and volume of material removed

All vegetal material was bagged and discarded offsite. As a result, the garden looks much better and is a credit to all those who put time in it.

The majority of the garden is managed by the City of Ephrata with raised bed community garden plots. The pollinator part of the garden is sponsored by and supported by the WSU Grant -Adams Master Gardeners. The public is encouraged to check out the pollinator garden's plants which are individually labeled. Though some of the labels appear with nonexistent plants, it is hoped they will reappear from their roots in cooler weather.

Other Master Gardener native plant and drought-tolerant demonstration gardens are located at the library in Moses Lake and at the Old Hotel in Othello and are worth checking out.

After cleanup

Coordinator's Column

Duane Pitts, Terry Rice, and Mark Amara, WSU Master Gardener Volunteer Co-Coordinators, are providing program direction, training, and recruiting for the next MG class of 2019.

Master Gardeners are rigorously trained through Washington State University's online classes and must follow established standards. All certified MGs volunteer their time in a variety of community outreach activities to earn and maintain their credentials. Approved activities include organizing educational events like an annual gardening symposium, teaching gardening classes, maintaining and improving demonstration gardens in Moses Lake, Othello, Ephrata, and Soap Lake, maintaining a seed library in Ephrata, writing articles for various news media, assembling and distributing quarterly newsletters, and staffing periodic plant clinics at farmers markets, county fairs or other events or through an online WSU plant clinic website. Master Gardeners are supported by the Grant-Adams Master Gardener Foundation (MGF), a nonprofit group that provides financial support for some of the above-mentioned projects and programs.

Anyone interested in gardening can join the MGF and/or contribute to it as a tax-deductible donation. This is all part of an effort to keep the public engaged and informed, helping them learn and practice sustainable horticultural practices in home gardens, yards, and small acreages in urban or rural settings. The Master Gardener program is directed at home gardens, so questions from large-scale producers or commercial growers are directed to appropriate extension agents. Anyone who would like to apply to take the next scheduled Master Gardener training program to become a certified volunteer may sign up through the Grant-Adams MG website or pick up a leaflet at the WSU Extension Office in Moses Lake at 1525 E. Wheeler Rd for further information. If approved, training begins in September 2019.

New WSU Publications

These publications are hot off the press and the information may be applicable for all gardeners:

- **FS103E** Using Biodegradable Plastics as Agricultural Mulches
- **FS297E** Anthracnose Canker Integrated Management Plan for Home Gardeners (Home Garden Series)
  - New Online Only
- **FS299E** Therapeutic Gardening (Home Garden Series)
  - New Online Only
- **FS300E** Do native trees and shrubs offer a better ecological choice for providing habitat to wildlife
    - it all depends
  - New Online Only
- **FS302E** Ascochyta Blight of Faba Bean
  - New Online Only
- **FS398E** Plant-parasitic Nematodes in Orchards Biology and Management in Washington
  - New Online Only
- **TB50E** Growing Poplar Trees for Biofuels: What do landowners in Washington State have to say?
  - New Online Only

References

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https://catalog.extension.oregonstate.edu/pnw709

Dates to Remember:

- **September 24, 2018, 12-4 pm –Tilth Alliance Farm Walk**, Cloudview Farm, 17305 Frey Road, Ephrata – Focus: Cover Crops and the Value of On-Farm Education
- **Saturday, April 13, 2019 – Fifth Annual Columbia Basin Eco-Gardening Symposium**, Moses Lake, 9 am - 1 pm
- **September 2019 – New Master Gardener Training Begins**

Master Gardener Plant Clinics

WSU Master Gardener Volunteers are available to address your home gardening questions. Our county has undergone many budget/personnel changes in the past few years that have changed how our Master Gardener Volunteers communicate with the public. You may contact a WSU Master Gardener Volunteer with your home gardening questions through the following e-mail address: ga.mgvolunteers@ad.wsu.edu. Messages sent to this address will be answered by the Master Gardener volunteers in a timely manner. For face-to-face contact, or if you have a plant or insect sample that you would like to have identified, please see the Master Gardener volunteers at one of the following locations:

- **Moses Lake Farmers Market -** McCosh Park – Dogwood Street Side, Saturdays, May through October from 8 am – Noon
- **Grand Coulee Farmers Market -** North Dam Park – Wednesdays, July-September 12, 2018, from 4:30 – 7 pm
- **WSU Grant-Adams Extension Office -** 1525 E. Wheeler Rd., Moses Lake. Open 8 am – 5 pm, Monday – Thursday

For help with diagnosis and identification, plant and insect samples can be dropped off at the WSU Extension Office Monday through Thursday from 8:00 am to 5:00 pm.