



GROUNDED

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Grant/Adams Master Gardeners

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Grant/Adams Counties Master Gardeners, 1525 E. Wheeler Road, Moses Lake, WA 98837
<http://county.wsu.edu/grant-adams/Pages/default.aspx> · ga.mgvolunteers@ad.wsu.edu

Is It Time to Plant Yet? . . . *By Kris Nesse*

Some of us are gardening gamblers. We start onions, cabbage, and broccoli inside very early each new year. Peas are sprouted in damp newspaper to tuck into the garden mid-February! Is this wise? Well, it may not be as risky as it seems. Relying on average temperatures and soil temperature, we can make informed decisions about planting times.

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In 2012, the USDA Plant Hardiness Zone Map (PHZM) changed for the first time in 30 years. Data from 1976 to 2005 showed most areas an average of one-half zone warmer. The Arbor Day Foundation illustrates this startling change in an animated map found at <http://www.arborday.org/media/mapchanges.cfm>. It indicates at least a 5 degree change over much of Grant and Adams counties, leaving most gardeners in Zone 6B, with smaller pockets of Zones 6A and 7A. You can check your own backyard using the USDA's interactive map: <http://planthardiness.ars.usda.gov/PHZMWeb/InteractiveMap.aspx> or through WSUE's website: <http://county.wsu.edu/grant-adams/Pages/default.aspx>.

So what does all this zone business have to do with gardening? While many plants will tolerate light frosts, the true warm weather lovers won't survive temperatures in the 30s. The PHZM indicates statistically when first and last frosts occur. It used to be that MG volunteers would advise clients that our local last frost date was May 15. As you can see from the chart, that is no longer true.

Gardeners need to remember that any PHZM is simply a guide. They are based on average lowest temperature, not the lowest ever. Seed starting calculators based on the PHZM are available from many sources including several at <http://awaytogarden.com/when-to-start-what-vegetable-seed-calculators/>.

In addition to frost dates, soil temperatures factor into decisions about when to seed or transplant various vegetable crops. Beets, carrots, peas, radishes, spinach and others will germinate in 40 degree soil (common in my Soap Lake raised beds in February), while beans won't germinate unless the soil temperature is at least 60 degrees. A soil thermometer is a gardener's best friend in the spring! Vegetable seeding schedules are available from many sources including: <http://ext100.wsu.edu/spokane/wp-content/uploads/sites/14/2015/02/C103-Vegetable-Seeding-Schedule-14.pdf>; and <http://www.ext.colostate.edu/mg/gardennotes/720.html>.

So check your zone, take the soil's temperature, and get planting!

USDA Hardiness Zone	First Frost Date	Last Frost Date
1	July 15	June 15
2	August 15	May 15
3	September 15	May 15
4	September 15	May 15
5	October 15	April 15
6	October 15	April 15
7	October 15	April 15
8	November 15	March 15
9	December 15	February 15
10	December 15	January 31 (sometimes earlier)
11	No frost.	No frost.



Row Covers for Spring and Fall Gardens . . . *By Mark Amara*

Floating row covers are ideal as season extenders and come in all shapes, sizes, materials, and thicknesses. They are used for frost protection, insect or other critter control (like birds, squirrels, or rabbits); as a passive heat source; and to maintain more uniform growing conditions in erratic weather.

They can be used early in the spring or even in the fall. The products best suited to temperature variations or extremes may provide some protection from freezing, are good heat insulators, and may help keep insect pests from plants. They are typically made of synthetic polypropylene or woven polyester that allows water and air to move freely through them. Plastic may also serve as a passive heater cover, though it does not breathe or allow air in.



With the exception of plastic, the materials mentioned above come in different thicknesses and weights that can vary in the amounts of light and heat they transmit. If row covers are carefully handled, they can be reused over multiple years. Light-weight row covers allow 90% light through and are often advertised as insect barriers, but are not intended to serve as frost protection. These materials are very thin and may rip easily so they are generally not reusable after they rip. Medium-weight row covers allow 85% light and frost protection to 28°F. Heavy-weight row covers allow 35-50% light and frost protection in the 24-28°F range. Any type of row cover should be cleaned or hosed to keep soil from adhering to it because it tends to break and weight it down. These materials should be thoroughly dry before storing to keep them from molding or breaking down further.



Row covers are usually sold in 5-to 50-ft widths and may be up to 1000-ft long. They are laid directly over plants or over support structures like aluminum, PVC or plastic hoops and anchored with soil, rocks, or other heavy objects. If using for insect protection, check to be sure insects are not present on plants before and after covering to reduce infestation issues. For example, in my Moses Lake vegetable garden, I often use both the lighter weight insect covers and heavier weight frost protectors supported by wire hoops for different situations. I anchor the fabric to

the ground with wood or steel posts rather than by soil so it can be easily removed. Row covers are generally resilient when it comes to irrigation. Ideally, drip irrigation works the best, although overhead sprinkler irrigation works fine too since materials are permeable.

Once plants are established in the warmth of spring, the frost protection covers can be removed. Alternatively, they can be left on for pest protection or used to re-cover plants later in the fall when cold temperatures threaten.

References

- Anderson, Elaine, No date. *Row Covers for Vegetable Gardens*, Community Horticulture Fact Sheet # 19, WA State University King County Extension.
<http://county.wsu.edu/king/gardening/mg/factsheets/Fact%20Sheets/Row%20Covers%20for%20Vegetable%20Gardens.pdf>.
- Chassen, Fran, 2010, *The Use of Floating Row Covers*, Colorado State University Extension, Master Gardener Program.
<http://www.colostate.edu/Dept/CoopExt/4DMG/VegFruit/rowcover.htm>.
- Fitzgerald, Toni and Mark Stiltz, compilers, 2005, *Row Covers*. WA State University Extension, Spokane County Master Gardener Program. C187.
<http://county.wsu.edu/spokane/gardening/Documents/C187%20Row%20Covers%2009.pdf>.
- Ophardt, Marianne, 2015, *Floating Row Covers in Gardens*, Garden Tips prepared for the Tri-City Herald newspaper. April 9.
<http://ext100.wsu.edu/gardentips/2015/06/25/floating-row-covers-in-gardens/>.
- Parker, Joyce, Carol Miles, Todd Murray, and William Snyder, 2012, WA State University Extension Fact Sheet FS089E. *How to Install a Floating Row Cover*.
<http://cru.cahe.wsu.edu/CEPublications/FS089E/FS089E.pdf>.

Editor's Note: The annual Master Gardener Plant Sale helps sustain our ongoing efforts to provide public outreach events throughout Grant-Adams Counties. Your support is greatly appreciated.

MASTER GARDENERS ANNUAL PLANT SALE AND RAFFLE—May 7th

The annual Master Gardeners plant sale takes center stage at the Moses Lake Farmers Market in McCosh Park on May 7 from 8 am to noon. As the primary fundraiser for the Master Gardener (MG) Foundation of Grant-Adams Counties, funds raised support MG horticultural and environmental advocacy activities throughout the year, including demonstration gardens, presentations and classes, an annual public symposium, plus educational materials and references for plant clinics.

A large array of reasonably priced annual and perennial plants will be for sale. Need tomatoes? Numerous varieties, both heirloom and hybrid, and most grown by Master Gardeners from organic seed, can be found at this once-a-year event. Shoppers will also find other seasonal vegetables, herbs, annual flowers, and locally adapted perennial trees, shrubs, flowers, and grasses. Master Gardeners will be on hand to give care and planting information and answer any questions.

If you're in need of a special gift (remember Mother's Day is May 8th), there will be specialty plants as well. What gardening mom wouldn't love a flowering plant or healthy tomato start!

The plant sale will also raffle off seven donated items:

- 10 bags of mulch from Home Depot and a Works wheelbarrow
- 10 bags of mulch from Home Depot and a Scotts fertilizer spreader
- 10 bags of mulch from Home Depot and a garden basket from the Seed Cupboard nursery
- 10 bags of mulch from Home Depot and a 1-month membership at Evolve Fitness in Moses Lake
- Wine basket from Winchester Winery and hand knitted scarf
- 1 yard of bark mulch from Basin Bark in Moses Lake
- Surprise basket from the Grant-Adams Master Gardeners

Tickets cost \$1 each, and buyers can purchase tickets specifically for any of the package(s) they want to win! Seven winners will be drawn at noon on May 7, and you do not need to be present to win. Tickets are available from any Master Gardener or at the plant sale.

Second Annual Columbia Basin Eco-Gardening Symposium

The Grant-Adams Master Gardeners and Grant County Conservation District have partnered up to jointly sponsor and organize a gardening symposium Saturday, April 23, 2016. Based on results and recommendations from the first annual symposium held in 2015, the partners are hosting another half-day event, focusing on getting to know your soils and plants, and providing tips to better water your lawn. The information below provides details and encourages individuals to register early to reserve a space. (Register at www.columbiabasinncds.org or call 509-765-9618 to register by phone.)

Join us for the 2nd Annual Columbia Basin Eco-Gardening Symposium



~Managing soils and water in the Columbia Basin

Saturday, April 23rd, 2016

9 am — to 1 pm (8:30 am sign-ins begin)

Technical Skills Center

920 E Yonezawa Blvd, Moses Lake

~Free Admission
~Door Prizes
~Refreshments

Featured Speakers:

- **Joan Davenport (Keynote Speaker) – WSU Professor of Soil Science**
~ Easy Tools to Get to Know Your Soil
- **Kelsey Prickett – Forb Production Manager, BFI Native Seeds**
~ Xeriscaping – The Native Approach
- **Heather Wendt – Assistant Manager, Benton & Franklin Conservation Districts**
~ Creating Low Water Use Gardens that Inspire – Heritage Gardens
- **Andrew McGuire – Cropping Systems Agronomist, WSU Extension**
~ Challenges & Techniques in Landscape Irrigation Management

Space is limited so please pre-register:

Online: www.columbiabasinncds.org

By Phone: 509-765-9618

**In Person: Grant County Conservation District
1107 S. Juniper Drive, Moses Lake**



**Master Gardener
Program**
WASHINGTON STATE UNIVERSITY
EXTENSION

WSU Extension programs and employment are available to all without discrimination. Evidence of discrimination may be reported through your local WSU Extension office.

Persons with a disability requiring special accommodations while participating in this program may call 509-754-2110, Ext. 4313 or email: ga.mgvolunteers@wsu.edu. If accommodations are not requested at least five (5) days in advance, we cannot guarantee availability of accommodations.

Firewise Landscaping Ideas . . . by Diane Escure

It may be too soon to get an accurate forecast of wildfire potential for the northwest this summer and particularly for the north central area of Washington, which was devastated by 2015 wildfires. In its 2016 Drought Watch report as of mid-February 2016, the WA State Department of Ecology says that heavy rains and snow have virtually eliminated drought in most of Washington, leaving the southeast corner of the state still in moderate drought. It further says that much of the state’s water supply comes from snowpack accumulations which statewide are more than 100% of normal for this time of year. Its forecasts for January through March 2016 have been for warmer, drier conditions as a result of El Niño; and for the April-September runoff period, they are within the normal range. According to the National Interagency Fire Center Predictive Services, the current climate outlook suggests that generally warmer-than-normal conditions are likely to continue with the potential for another significant wildfire season.

Rick Wentworth, Moses Lake Battalion District 5 Fire Chief, says that fire season begins in the Columbia Basin in early May and runs through October in typical years, although his district has fought fires some years in November. If you live in an urban/wildland interface, you should consider the location and spacing of plants within your home landscape and surrounding area, because these areas are often surrounded by trees, shrubs, and grasses that can be very flammable. The idea is to create a defensible space to greatly reduce your chances of a wildfire reaching your home. Decks and siding easily can ignite when plants that burn quickly and produce high heat are placed adjacent to the home. A burning plant or group of plants in front of windows can cause glass to break allowing fire to enter the home. Reconsider planting highly flammable plants, particularly when bunched together, at home entry locations or close to the walls of your home.

A well-maintained lawn, as well as conservation grasses, clover, and bulbs, can be included in a fire-resistant landscape and serve as an effective fuel break. Noncombustible materials in planting areas around your house, such as rock, brick, and concrete, also provide a barrier to fire. Bark mulch, which is often used in home landscapes, can ignite, conveying a fire to your home. A combination of wood bark surrounded by decorative rock is less flammable than wood bark mulch alone, and will not scorch plants.

While fall is an ideal time to plant trees and shrubs, it’s never too late (or too early) to assess the landscape of your property to reduce the fuel and minimize fire hazards and consider replacing highly flammable plants with those that are fire resistant this spring. And what plants are considered fire-resistant? Does landscaping for defensible space mean creating an unattractive, unnatural or sterile-looking landscape? The answer is that a wide variety of attractive groundcovers, vines, shrubs, and trees are fire resistant and grow well in our area.

Fire-resistant plants do not readily ignite from a flame or other ignition sources. In the event of fire, these plants can be damaged or even killed, but their foliage and stems do not significantly contribute to the fuel or the fire’s intensity.

Several factors influence the fire characteristics of plants, including plant moisture content, age, total volume, dead material, and chemical content.

Characteristics of Fire-Resistant Plants	Characteristics of Highly Flammable Plants
Moist and supple leaves	Contains fine, dry, or dead material within the plant
Little dead wood and tend not to accumulate dry, dead material within the plant	Leaves, twigs, and stems contain volatile waxes, terpenes (naturally occurring compounds in the cells of certain plants), or oils
Water-like sap; doesn’t have a strong odor	Leaves are aromatic (strong odor when crushed) Sap is gummy, resinous, and has a strong odor May have loose or papery bark

Both native and ornamental plants can be highly flammable. One example you see planted throughout the Columbia Basin is the spreading or upright juniper, which is highly flammable due to its accumulation of old, dead needles and the volatile oils in its foliage. Other highly flammable plants include yews, brittlebrush, sagebrush, Leyland cypress, and conifers in general. A few conifers, however, are fire-resistant: Western larch (*larix occidentalis*), Ponderosa Pine (*Pinus ponderosa*), and Lodgepole pine (*Pinus contorta* var. *latifolia*), whose foliage is moderately resistant to fire.

Fortunately, there are many attractive fire-resistant plants for you to choose from that grow well in our area.

Examples of Fire-Resistant Ground Covers and Perennials

Ground Covers	Perennials
Carpet Bugleweed (<i>ajuga reptans</i>)	Sea thrift (<i>armeria maritime</i>)
Kinnikinick (<i>Arctostaphylos uva-ursi</i>)	Astilbe (<i>astilbe</i> cultivars)
Mock Strawberry (<i>Dechesnea indica</i>)	Sun rose (<i>Helianthemum nummularium</i>)
Hens and Chicks (<i>Echeveria</i> species)	Sedges (<i>Carex</i> species)
Snow-in-Summer (<i>Cerastium tomentosum</i>)	Daylilies (<i>Hemorocallis</i> hybrids)
Yellow Ice plant (<i>Delosperma nubigenum</i>)	Coreopsis (<i>Coreopsis</i> species)
Japanese Pachysandra (<i>Pachysandra terminalis</i>)	Campanulas (<i>Campanula</i> species)
Creeping Phlox (<i>Phlox subulata</i>)	Coral Bells (<i>Heuchera</i> species)
Creeping Thyme (<i>Thymus praecox</i>)	Hosta lilies (<i>Hosta</i> species)
Sedum or Stonecrops (<i>Sedum</i> species)	Red-hot poker (<i>kniphofia uvuria</i>)
Periwinkle (<i>Vinca minor</i>)	Evening primrose (<i>Oenothera missouriensis</i>)
Epimedium (<i>Epimedium x discolor</i>)	Penstemon (<i>Penstemon</i> species)
Speedwell (<i>Veronica</i> species)	Lupine (<i>Lupinus</i> species)
Dianthus, Garden Carnation or Pinks (<i>Dianthus</i> species)	Columbine (<i>Aquilegia</i> species)
Pink Pussytoes (<i>Antennaria rosea</i>)	Iris (<i>Iris</i> species)
Rock cress (<i>Aubrieta deltoidea</i>)	Blanket flower (<i>Gaillardia</i> varieties)
Wild strawberry (<i>Fragaria</i> species)	Yucca (<i>Yucca</i> species)
	Oriental Poppy (<i>Papaver orientale</i>)

Examples of Fire-Resistant Shrubs and Vines

Red-osier dogwood (<i>Cornus stolonifera</i>)	Currant (<i>Ribes</i> species)
Cotoneaster (<i>Cotoneaster</i> species)	Hardy shrub rose (<i>Rosa</i> species)
Creeping Oregon grape (<i>Mahonia repens</i>)	Spirea (<i>Spiraea</i> species)
Oregon boxwood (<i>Pachystima myrsinites</i>)	Snowberry (<i>Symphoricarpos albus</i>)
Tall Oregon grape (<i>Mahonia aquifolium</i>)	Lilac (<i>Syringa</i> species)
Burning bush (<i>Euonymus alatus</i>)	Cranberry bush (<i>Viburnum trilobum</i>)
Mock orange (<i>Philadelphus</i> species)	Serviceberry (<i>Amelancier alnifolia</i>)
Sumac (<i>Rhus</i> species)	Weigela (<i>Weigla florida</i>)
Rose-of-Sharon (<i>Hibiscus syriacus</i>)	Russian sage (<i>Perovskia atriplicifolia</i>)
Honeysuckle (<i>Lonicera</i> species)	Viburnum (<i>Viburnun</i> species)

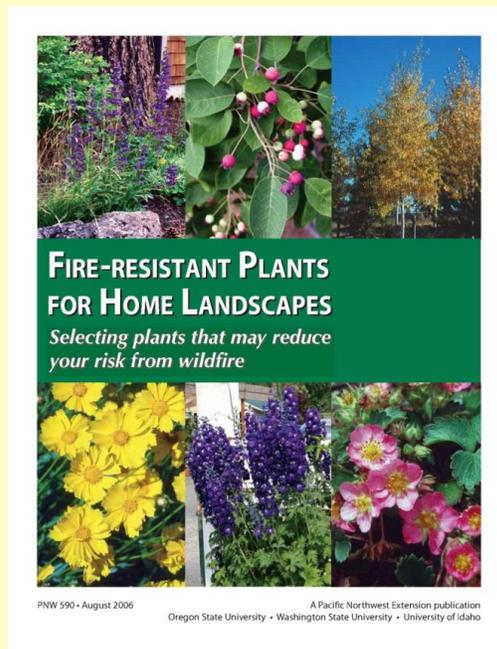
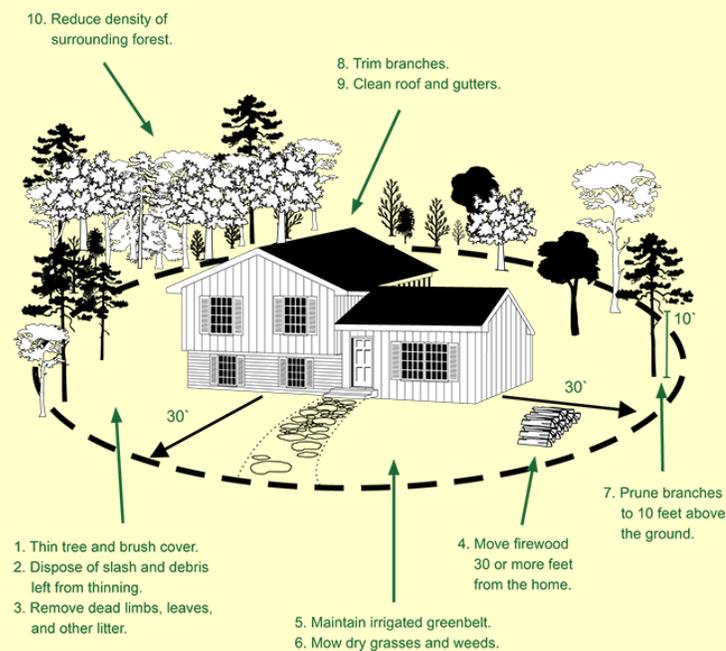
Examples of Fire-Resistant Deciduous Broadleaf Trees

Big leaf maple (<i>Acer macrophyllum</i>)	European mountain ash (<i>Sorbus aucuparia</i>)
Amur maple (<i>Acer ginnala</i>)	Honeylocust (<i>Gleditsia triacanthos</i> var. <i>inermis</i>)
Norway maple (<i>Acer platanoides</i>)	Kentucky coffee tree (<i>Cymnocladus dioica</i>)
Red maples (<i>Acer rubrum</i>)	Walnut (<i>Juglans</i> species)
Horse chestnut (<i>Aesculus hippocastanum</i>)	American sweetgum (<i>Liquidambar styraciflua</i>)
Birch (<i>Betula</i> species)	Crabapple (<i>Malus</i> species)
Western catalpa (<i>Catalpa speciosa</i>)	Aspen/Cottonwood (<i>Populus</i> species)
Common hackberry (<i>Celtis occidentalis</i>)	Flowering Cherry (<i>Prunus</i> species)
Eastern redbud (<i>Cercis Canadensis</i>)	Chokecherry (<i>Prunus virginiana</i> cvs)
Flowering dogwood (<i>Cornus florida</i>)	Bur oak (<i>Quercus macrocarpa</i>)
Beech (<i>Fagus</i> species)	Mountain alder (<i>Alnus tenuifolia</i>)
Ash (<i>Fraxinus</i> species)	Willow (<i>Salix</i> species)

References:

- Firewise Landscaping Plant Materials, Paula Dinius, WA State University, Chelan County Extension, September 2012.
- Fire-Resistant Plants for Home Landscapes, PNW 590, Oregon State University, August 2006
- Firewise Guide to Landscape and Construction, National Fire Protection Agency Brochure
- Trees & Woody Landscape Plants, The International Society of Arboriculture, Consumer Education Brochure, excerpted from Chapter 11, Washington State University, Master Gardener Training Workbook, Fall 2011.
- Predictive Services, National Interagency Fire Center Report, Issued February 1, 2016

Diagram below is from the U. S. Forest Service



MGs Train to Provide Unique Services . . . *By Terry Rice*

Fifteen Grant-Adams Master Gardener (MG) interns and veterans met at the WSU Extension Office in Moses Lake on February 3, 2016, to review program responsibilities and record keeping, and discuss volunteer credit opportunities.



MG intern Deana Riley and veteran Mary Lou Hobson

MG Coordinator Jeannie Kiehn and veteran MGs helped answer questions for the newbies. Barbara Guiland conducted a tour of the MG clinic office. Participants learned the intricacies of documenting qualified volunteer time and types of resources to consult in servicing clinic questions.



Left to right: MG veteran Edris Herodes, interns Duane Pitts and David Geer

Everyone enjoyed the meeting and decided that more of these meetings would be welcomed as it offers chances to discuss the program, help maintain consistency and continuity of approach, and provide networking and an opportunity to socialize with fellow MGs.



Left to right Judy Rector, Intern, and Mona Kaiser, veteran

New WSU Grant-Adams MGs are required to successfully complete online instruction and classroom labs their first year. Then, in their second year of program participation, for interns to attain full MG certification, they must volunteer for public service gardening activities in a variety of outreach situations, which include a minimum of 50 hours, with at least half of those hours in clinic settings (paired with veterans). MG veterans need 25 volunteer hours and 10 continuing education hours to remain certified each year. For anyone interested in becoming Master Gardeners, the next training classes will be offered through the WSU Grant-Adams MG program in 2017. The WSU MG website http://ext100.wsu.edu/grant-adams/gardening/master_gardeners/ can be consulted for details.

Options for Establishing a Seed Library . . . *By Deana Riley*

It's seed season and, in case you haven't heard, seed libraries are popping up all over the country like noxious weeds! The Grant/Adams MGs formed a committee this winter to look into seed libraries.



What on earth is a seed library you might ask? It's not related to the Smithsonian seed library nor is it located in the Arctic. Rather, it's a collection of seeds stored at a location (library, museum, cooperative extension, church) where members may check seeds out, usually free of charge. Members then plant the seeds, grow and harvest vegetables or flowers, and allow a few to mature for seed harvest and return those seeds to the library, where the cycle is complete.

Who benefits from a seed library? Oh my –the community benefits in countless ways. A seed library can be an outreach into the community, helping educate new gardeners and expanding the horizons of the experienced gardener. From the very young, disabled, culturally diverse, children and adults of all ages, we can all learn how to grow our own food, use fewer chemicals, live healthier lives and maybe produce enough in our gardening adventures to donate our extras to the community food banks.

What do you need to know? There does not appear to be much accredited research or seed library recommendations on university or extension "edu" web sites for "seed/saving/libraries", yet. But, there are a plethora of websites, social media seed exchange groups, organizations and seed companies that individuals can connect with. Who knew?

Check out these links below on what and how to start a seed library:

- <http://infospace.ischool.syr.edu/2012/05/21/seed-libraries-what-they-are-how-to-start-one/> and a couple established seed libraries. Either could be modeled.
- King County Library <http://kingcoseed.org/>
- USF Seed Library <https://www.usfca.edu/library/seedlibrary>

There are also some tribal seed libraries throughout the country that contain rare heirloom seed. These libraries are used to preserve their histories and heritage and are for tribal members only.

A few items of interest are type of seed planted (open-pollinated preferred), pollination method (self, hand, cross), and harvesting/saving seed (beginners, experienced and expert). For your viewing pleasure, here is a video and a couple of websites that take all the confusion out of it (popcorn encouraged):

- Video on lettuce seed explaining seed type and pollination (first 4 mins) <https://youtu.be/ck4qRZ7yg3k>
- Harvesting Seed (quick tips edu site) <http://www.extension.umn.edu/garden/yard-garden/vegetables/saving-vegetable-seeds/>
- Basic Seed Saving (how-to by plant) http://www.seedsave.org/issi/issi_904.html

As you can see from the information provided, education opportunities abound for the Master Gardener programs within our communities. The Grant/Adams MGs are currently collaborating with the Chelan/Douglas MGs and working with librarians in the North Central Regional Library (NCRL) system. Now, we can look forward to our lettuce bolting.

Master Gardener Presentations Available by Request

Listed below are topics and contact information for various presentations given by the WSU Grant-Adams Area Master Gardener Volunteers. If you find a topic that you are interested in having presented to your organization, please contact the Master Gardener directly.

General Gardening

Cynthia Calbick (509) 765-5474	Putting Your Garden to Bed in the Fall	30 min
	Plant Propagation - Multiply Your Garden Plants	1 hr
	Drought-Tolerant Gardening	1 - 4 hr
Barbara Guiland (509) 765-3219	Basic Gardening Skills	1-3 hr
	New Paths: Making Gardening Easier	45 min - 1 hr
	Everyone Lives in a Watershed	30 min - 1 hr
Mona Kaiser (509) 246-0641	Putting Your Garden to Bed	30 min - 1 hr

Native Plants

Cynthia Calbick (509) 765-5474	Native Plant Gardening	1 - 4 hr
	Landscaping with Native Plants	1 hr

Vegetable Gardening

Kris Nesse (509) 690-8542	Variety of topics, in any combination (Vegetables, Herbs, Soil, Seed Starting, Raised Beds, Tips to Extend the Harvest)	30 min - 2 hr
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Ornamental Gardening

Mona Kaiser (509) 246-0641	Using Ornamental Grasses in the Landscape	30 min - 1 hr
	Proper Rose Pruning	30 min - 1 hr
	Beneficial Insects vs. their Insect Pest Enemies	30 min - 1 hr
	Deadheading Perennials, When, Why, How	30 min - 1 hr
	Staking Guidelines and Options for Perennials	30 min - 1 hr
	Lawn Care, Early Spring through Late Fall	30 min - 1 hr
Trudie Walsh (206-310-3185)	Pruning Roses	30 min - 1 hr

Trees and Shrubs

Barbara Guiland (509) 765-3219	Trees and Tree Care in the Columbia Basin	1 hr
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Shoreline Management

Cynthia Calbick (509) 765-5474	Shoreline Garden Design	1 hr
Barbara Guiland (509) 765-3219	Redesigning Shoreline	30 min

Pest Management

Barbara Guiland (509) 765-3219	New Invasive Insects: Spotted Wing Drosophila and Brown Marmorated Stink Bug	1 hr
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Wildlife Habitat

George Roper (509) 488-3719	Attracting Birds to Your Backyard	45 min
Kris Nesse (509) 690-8542	Attracting Native Pollinators	30 min - 2 hr

Soil Fertility

George Roper	Worm Composting	45 min
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Specialty Topics

Linda Crosier (509) 488-3538	Mosaic Stepping Stone	5 hr
Terry Rice (509) 488-3871	Winter Sowing	1 - 2 hr
Terry and Linda	Mother's Day Garden in a Pot Hypertufa	30 min - 1 hr
Nicole Meaney (206) 484-8272	Pollinators in the Garden Gardening with Chickens	30 min - 1 hr 30 min - 1 hr

Note: Classes given by Linda Crosier and Terry Rice are through Othello Community Schools Program. Some talks by Cynthia Calbick are through Moses Lake Parks and Recreation Department. Fees may apply if offered through city programs.

Master Gardener Plant Clinics

WSU Master Gardener Volunteers are available to address your home gardening questions. As our county has undergone many budget/personnel changes in the past couple years, this has impacted how our Master Gardener volunteers communicate with the public. You may contact a WSU Master Gardener 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 a Master Gardener 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	Saturdays May-September	8 am - noon	McCosh Park (Dogwood Street side), Moses Lake
Ephrata Farmers Market	1 st , 2 nd , and 3 rd Saturdays June-September	8 am - noon	C St NW between the Courthouse-Bureau of Reclamation Building, downtown Ephrata
Lep-re-kon Harvest Foods	1 st Saturdays May-September	9 am - noon	1115 E. Main, Othello
WSU Grant-Adams Extension Office	2 nd & 4 th Mondays April-October	9 am - noon	1525 E. Wheeler Rd, Moses Lake

Tree of Heaven . . . *By Barbara Guiland*

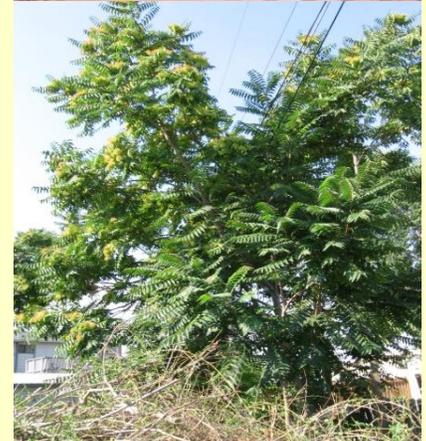
How do we know it is a weed, that plant?
 Will it spread, spread, spread –
 valueless, troublesome, or noxious?

It's rising up under the eave,
 that plant you've never seen before

and don't remember planting.
 It is growing green, hardy, and unknown.
 What breeze, bird, or bump dropped
 off a seed in that particular place?

It's easy to love the sight of
 a flourishing yellow water iris,
 a posey of wild violets, and
 a just discovered heavenly slip
 growing in resilient, vigorous bliss.

Yet MGs are prudent with advice that is wise:
 one gardener's weed may be another gardener's prize.



ailanthus altissimus

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