UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources
UC Master Gardener Program

Glenn Gardeners Newsletter, Winter 2025

A Quarterly Newsletter from the UC Glenn County Master Gardeners

Glenn Gardeners

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UC Master Gardener Volunteers
UCCE Glenn County
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Spotlight Plant - Lion's Tail

By Nancy Mulligan, Glenn County UC Master Gardener

Lion's tail (*Leonotis leonurus*), is an evergreen shrub that is native to South Africa. It is known for striking orange flowers. It can get 4 – 5 feet tall and 4 - 5 feet wide. It has orange flowers that grow in whorls around the stem. The plant blooms from spring to fall.

It grows well in the CA valley, prefers full sun and is drought tolerant. In the dry summer it does need a deep watering every 2 to 3 weeks. The plant can be cut hard in late winter to control size and to renew growth and flower development. It is attractive to birds, bees and butterflies. It is pest and disease free. (Picture 1: Lion's Tail growing in Willows.)

Continued on next page….

Lion's Tail….cont.

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UC IPM Website

Solve your pest problems with UC's best science, and visit the UC ANR Statewide Integrated Pest Management Program website, at: https://ipm.ucanr.edu/, or scan the QR code.

Bug or Pest Spotlight - Invasive Spotted Lanternfly

By Nancy Mulligan, Glenn County UC Master Gardener

The spotted lanternfly (Lycoma Delicatula) (SLF) is an invasive species that has the potential to have a big impact on California agriculture and the natural environment. SLF feeds on 40 known hosts occurring in North America. SLF feeds on grapevines and fruit trees (apple, cherry, stone fruits), hops, and woody ornamentals. SLF lays egg masses on smooth tree surfaces and inanimate objects such as telephone poles, stones, pallets, outdoor equipment, firewood, and vehicles. The laying of eggs on mobile objects contributes to its ability to become established in new areas.

SLF was first found in Pennsylvania in 2014 and is now found throughout the Mid-Atlantic States. This insect has not been found in CA and it is important to keep the pest out of CA. The identification and early detection of SLF are key to preventing their establishment in California. Everyone can play an important role in keeping SLF out of your county by being the eyes and ears needed for early detection of SLF.

The preferred host of SLF is another invasive species in CA, the tree-of-heaven (Ailanthus altissima). Tree-of-heaven if found in 45 Counties in CA, including Glenn County. It is rapidly growing tree often found along roadsides, fence lines and forest openings.

Continued on next page….

Spotted Lantern Fly….cont.

Tree-of-heaven has smooth bark resembling the skin of a cantaloupe. The tree has compound leaves, meaning they have a central stem in which leaflets are attached on each side. The leaves are very large ranging in size from 1 to 4 feet long. The leaves and other plant parts give off an offensive odor when crushed. Tree-of-heaven spreads by seed and sprouts. One established it is very difficult to get rid of. (Picture 1: Tree-of-heaven, the preferred host of the SLF growing in Glenn County.)

What you can do. Don't buy or plant tree-of-heaven. If you have tree-of-heaven or know of a location inspect the trees and surrounding objects for egg masses. If an egg mass or insect is found do the following:

1. **Snag it** - collect the specimen in an air-tight container.
2. **Snap it** - take a photo of where you found it, include landmarks.
3. **Report it** - report suspected sighting to the Glenn County Agriculture Dept., CDFA Pest hotline, 1-800-491-1899 or report on-line at: reportapest.cdfa.ca.gov.

More information can be found at the following websites:

- https://ucanr.edu/sites/SoCo/files/315819.pdf
- https://ucanr.edu/sites/Spotted_Lanternfly/Pest_Overview/

(Picture 2: Tree-of-heaven leaf with yard stick for scale.)

IPM Article - Using Less Toxic Insecticides at Home

By Nancy Mulligan, Glenn County UC Master Gardener

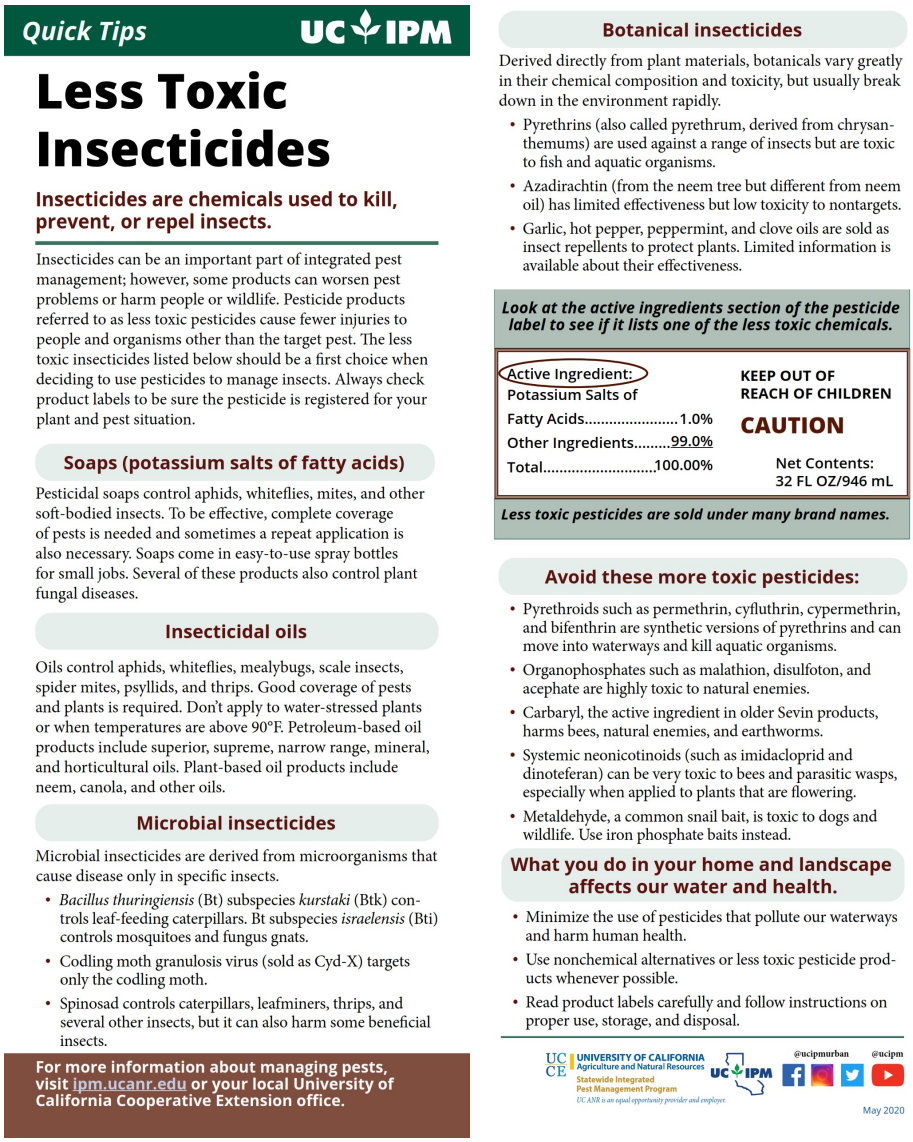
It is always best to use an Integrated Pest Management (IPM) approach to **prevent** pests and their damage. (See Article in Spring 2024 Glenn Gardeners Newsletter on Using IPM at Home). However, sometimes the use of an insecticide to control insects is needed. Some insecticides can make things worse by killing insects other than the target insect, or harming the environment and people. Less toxic insecticides should be a first choice when choosing an insecticide. Always read the label before purchasing and using to make sure the product is registered for the plant and insect you want to control.

Insecticidal Soaps are an example of a less toxic insecticide. Insecticidal soaps are made to control pests and not harm the plant. The use of household soaps such as dishwashing liquid is not recommended to be used in the garden or landscape. Dishwashing liquids are primarily designed to dissolve grease from dishes and clean clothes, not to kill insects. Dish detergents may dissolve the protective waxes on the plant leaves causing the plant to dry out. Commercially available insecticidal soaps are less likely to dissolve plant waxes.

Insecticides to Avoid. Pyrethroids, organophosphates, carbaryl and systemic neonicotinoids are all toxic to non-target insects such as bees and natural enemies such as lady beetles. Systemic insecticides are often applied to trees to control aphids. When these insecticides are applied to trees that are flowering, bees feeding on the flowers are killed.

More information about the use of less toxic insecticides can be found on the Quick tip that is included in this newsletter.

More information about the dangers of homemade pesticides can be found in this blog post from the UCANR Master Gardeners, at: https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=47792. (Picture 1: UC IPM Quick Tips, Less Toxic Insecticides.)



Quick Tips UC IPM

Less Toxic Insecticides

Insecticides are chemicals used to kill, prevent, or repel insects.

Insecticides can be an important part of integrated pest management; however, some products can worsen pest problems or harm people or wildlife. Pesticide products referred to as less toxic pesticides cause fewer injuries to people and organisms other than the target pest. The less toxic insecticides listed below should be a first choice when deciding to use pesticides to manage insects. Always check product labels to be sure the pesticide is registered for your plant and pest situation.

Soaps (potassium salts of fatty acids)

Pesticidal soaps control aphids, whiteflies, mites, and other soft-bodied insects. To be effective, complete coverage of pests is needed and sometimes a repeat application is also necessary. Soaps come in easy-to-use spray bottles for small jobs. Several of these products also control plant fungal diseases.

Insecticidal oils

Oils control aphids, whiteflies, mealybugs, scale insects, spider mites, psyllids, and thrips. Good coverage of pests and plants is required. Don't apply to water-stressed plants or when temperatures are above 90°F. Petroleum-based oil products include superior, supreme, narrow range, mineral, and horticultural oils. Plant-based oil products include neem, canola, and other oils.

Microbial insecticides

Microbial insecticides are derived from microorganisms that cause disease only in specific insects.

- *Bacillus thuringiensis* (Bt) subspecies *kurstaki* (Btk) controls leaf-feeding caterpillars. Bt subspecies *israelensis* (Bti) controls mosquitoes and fungus gnats.
- Codling moth granulosis virus (sold as Cyd-X) targets only the codling moth.
- Spinosad controls caterpillars, leafminers, thrips, and several other insects, but it can also harm some beneficial insects.

For more information about managing pests, visit ipm.ucanr.edu or your local University of California Cooperative Extension office.

Botanical insecticides

Derived directly from plant materials, botanicals vary greatly in their chemical composition and toxicity, but usually break down in the environment rapidly.

- Pyrethrins (also called pyrethrum, derived from chrysanthemums) are used against a range of insects but are toxic to fish and aquatic organisms.
- Azadirachtin (from the neem tree but different from neem oil) has limited effectiveness but low toxicity to nontargets.
- Garlic, hot pepper, peppermint, and clove oils are sold as insect repellents to protect plants. Limited information is available about their effectiveness.

Look at the active ingredients section of the pesticide label to see if it lists one of the less toxic chemicals.

Active Ingredient:
Potassium Salts of
Fatty Acids.....1.0%
Other Ingredients.....99.0%
Total.....100.00%

KEEP OUT OF REACH OF CHILDREN
CAUTION
Net Contents: 32 FL OZ/946 mL

Less toxic pesticides are sold under many brand names.

Avoid these more toxic pesticides:

- Pyrethroids such as permethrin, cyfluthrin, cypermethrin, and bifenthrin are synthetic versions of pyrethrins and can move into waterways and kill aquatic organisms.
- Organophosphates such as malathion, disulfoton, and acephate are highly toxic to natural enemies.
- Carbaryl, the active ingredient in older Sevin products, harms bees, natural enemies, and earthworms.
- Systemic neonicotinoids (such as imidacloprid and dinoteferan) can be very toxic to bees and parasitic wasps, especially when applied to plants that are flowering.
- Metaldehyde, a common snail bait, is toxic to dogs and wildlife. Use iron phosphate baits instead.

What you do in your home and landscape affects our water and health.

- Minimize the use of pesticides that pollute our waterways and harm human health.
- Use nonchemical alternatives or less toxic pesticide products whenever possible.
- Read product labels carefully and follow instructions on proper use, storage, and disposal.

Plant Clinic Questions

By Nancy Mulligan, Glenn County UC Master Gardener

Sour Figs

The Master Gardeners Plant Clinic received an inquiry about turkey figs. The figs are getting infested by small bugs that get into the bottom of the fig and then the figs become sour and inedible.

The figs are being infested by dried fruit and sap beetles of the *Carpophilus* species. The beetle will attack ripening fruit by entering through holes in the fruit, such as the eye of a fig or a hole caused by mechanical injury or another insect. The insects bring yeasts into the fruit which causes the souring.

Souring is difficult to control. Fruit that falls to the ground should be removed and destroyed quickly. Beetles can be trapped in containers with an inverted cone top baited with fermenting fruit and water. Figs with smaller eyes are less affected. The person who contacted the plant clinic about the problem with turkey figs reported that the problem does not occur on Mission figs.

More Information about fruit souring and this pest can be found on the UCIPM website, at: https://ipm.ucanr.edu/PMG/GARDEN/FRUIT/PESTS/driedfrtbeetle.html.

Holes in Tree Trunk

The Master Gardener Plant Clinic received an inquiry about small holes in trees and wanted to know what kind of insect was causing the damage. A picture of the damage was taken showing rows of evenly spaced holes.

Evenly spaced linear rows in trees are caused not by insects but by a bird, the sapsucker. Sapsuckers drill a shallow hole in the tree bark and then use their brush-tipped tongues to lap up sap.

Holes in Tree Trunk…..cont.

Sap contains sugar which the birds use for energy. The small holes created by the birds can attract tree insects. Over time enough sap could be potentially lost to create a weakened tree limb or tree.

To prevent tree damage the tree can be wrapped in chicken wire or hang reflective strips, CDs or aluminum foil balls to scare the birds away. (Picture 1: Sapsucker damage on a tree.)

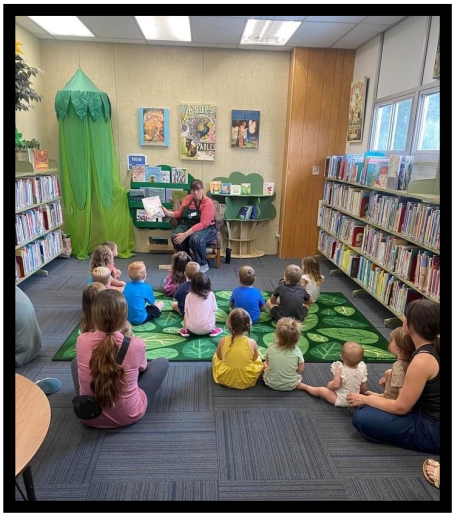
The UC ANR California Garden Web

The UC Master Gardener Program designed the California Garden Web to serve as a portal to organize and extend the University of California's vast collection of research-based information about gardening to the public. Visit the website, at: https://ucanr.edu/sites/gardenweb/, or scan the QR code.

Glenn County Master Gardeners in the Community

(Picture 1: The Glenn County Master Gardeners at the Hamilton City Car Show on September 14, 2024.)

(Picture 2: Glenn County Master Gardener, Deborah Storz, at the Willows Library with an activity about worms.)



(Picture 3: Glenn County Master Gardener Sheila Skemp, at the Orland Library for Storytime.)

(Picture 4: Glenn County Master Gardener, Nancy Mulligan, at the Glenn County Senior Resource Fair.)

About Master Gardeners

The UCCE Master Gardener Program in Glenn County provides our community with UC research based information about home horticulture, sustainable landscaping and integrated pest management practices. Master Gardener volunteers have completed extensive training provided by specialists from the University of California. The Glenn County Master Gardeners started in 2012.

The Master Gardener volunteer program was started in the early 1970s at the Washington State University. Farm Advisors became overwhelmed by all the incoming calls from home gardeners and homesteaders so they trained volunteers to answer these questions and the “Master Gardener Program” was born. The first University of California Master Gardener programs began in 1980 in Sacramento and Riverside counties.

Have a Gardening Question? Contact our Plant Clinic

The Glenn County UC Master Gardener Volunteers are available to help you and answer your gardening, landscaping, soil, or pest questions.

EVERY WEDNESDAY FROM 2:00 TO 4:00 P.M.

Call us at **530-865-1107!** Walk –ins are welcome at the UCCE Office at **821 E South Street, Orland CA**, or email us at **anrmgglenn@ucanr.edu.**

Photos of the problem are helpful. Pest specimens or plant samples Can be dropped off at the UCCE Office and left at the front desk.

How to Subscribe

To subscribe to the Glenn Gardeners Newsletter, go to: https://surveys.ucanr.edu/survey.cfm?surveynumber=21282, or use the QR code below.

Glenn Gardeners Newsletter

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UC Master Gardener Program

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UC MASTER GARDENER PROGRAM STATEWIDE BLOG
News and updates from the statewide UC Master Gardener Program office.
UC ANR

UCANR: Promoting healthy people and communities

The Dangers of Homemade Pest Control Remedies

Author: Karey Windbiel-Rojas
Author: Belinda J. Messenger-Sikes

Published on: June 9, 2021

Instructions for making homemade mixtures to control pests are easy to find online and in social media, and it's tempting to make your own home remedy when pests invade. Doing so may seem like a natural, organic, and non-chemical solution, but did you know that what you are mixing is considered a pesticide? A pesticide is any mixture used to kill, destroy, repel, or mitigate a pest.

Pesticide mixtures of household ingredients like dish soap, garlic, and vinegar (Figure 1) may seem harmless and safer than storebought formulated pesticides, but they can actually pose unrealized risks.

What is the Concern with Homemade Pesticides?

While ingredients in home remedies are items we might eat or use in the kitchen, the mixture of them is not tested for efficacy, health, or safety, so their impacts are unknown. Because of this, homemade pesticides have the potential to harm human health, damage plants, be toxic to pets and wildlife, and pollute the environment.

For example, some online sources describe making a homemade insecticide from the tobacco leaves found in cigarettes and tout it as "natural" or "organic." While cigarettes are readily available for purchase, the resulting concoction (a pesticide) made from tobacco is extremely concentrated and highly poisonous to humans and pets. There are many additives used in producing products such as cigarettes, soaps, or detergents and these ingredients are not always known to the consumer.

Another concern is the potential hazard created during the mixing and making of home remedies. Even while natural, some ingredients become more toxic during the process of cooking the mixture, which may concentrate the ingredients and increase risks of harmful health side effects due to inhalation of fumes or contact with skin.

Figure 1. Pesticides made from household ingredients lack the details needed to safely and effectively control pests. (Credit: B Messenger-Sikes)

No Instructions for Use

Commercially available pesticides (Figure 2) are required by law to have a label with instructions on use, mixing, storage, and first aid. Home remedies don't have instructions for specific dilution or use rates, nor do they identify how often mixtures should be applied. Home remedies also contain no guidance about wearing protective equipment like gloves or how to properly store the mixture.

Homemade mixtures are stored in containers that are either not labeled with what's inside or lack the required label information registered pesticides contain. Each year, poison control centers report poisonings of children and adults from drinking pesticides that have been stored in food or drink containers. Without a label and knowledge of how a mixture can affect people when exposed, first aid information isn't available. To prevent accidental poisoning, pesticides should never be mixed or stored in food or drink containers even if the container is marked.

Figure 2. Commercially available pesticides made from botanical extracts.

Are home remedies effective?

Because homemade pesticides vary greatly in their makeup and are not tested through rigorous research studies, there is no data to support whether they consistently control targeted pests. Unlike commercial pesticides that must show their efficacy data before being registered, homemade remedies lack scientific studies to show that they are effective.

Applying ineffective homemade pesticides can make pest problems worse, may not control the pest, could be harmful to the plant, or contaminate waterways. In addition, a homemade pesticide sprayed in the garden may kill the "good bugs" as well as the targeted pest insects. Many commercial pesticides are formulated to work only on specific pests or groups of pests.

Many home remedies specify using dish soap mixed with other ingredients to kill insects, plant diseases, or weeds. Dish soap, which is a powerful detergent, can injure desirable plants by stripping the waxy layer off the leaves. Commercially available insecticidal, fungicidal, and herbicidal soaps, which are registered pesticides, are highly effective against the targeted pest and will not damage plants when used correctly. These products cannot be made at home with common household ingredients.

Are home remedies legal?

The U.S. Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) covers the use of homemade pesticides. According to FIFRA, in order to legally apply a material as a pesticide it must be either registered with the Environmental Protection Agency (EPA) or be exempt from registration. There is a list of active ingredients (the part of a pesticide that affects the pest) that can be used in pesticide products without requiring registration; these are called minimum risk or 25(b) products) The active ingredient list allows the use of single chemicals, like sodium lauryl sulfate (found in soap), as unregistered pesticides, but does not include commercial products like dish soap that may contain other ingredients, such as viscosity modifiers, preservatives, and pH adjusters.

Alternatives to pesticides

Many pests in the home and garden can be managed without pesticides. In a garden, grow plants suited to the environment and keep them healthy with proper irrigation and fertilization. Weeds can be controlled by hand-pulling, mulching, or weeding tools. For more information, see the UC IPM Home and Garden pages.

[Original article published in the Spring 2021 issue of the Retail Newsletter.]

Public Value: UCANR: Promoting healthy people and communities
Comments: 12

Comments:

by Kathy H Keller
on June 11, 2021 at 2:12 PM
Thank you for this informative article. As you mention, nicotine, as found in tobacco, can and has been used as a pesticide - it is a neurotoxin to insects and humans. Nicotine solutions have been marketed for commercial use, so it's easy to see how someone might seek to elute it from cigarette tobacco and/or cigarette butts as a homemade concoction. Problem is, nicotine is easily absorbed through the skin, as well as via inhalation (in smoke or as an aerosol). So, as in this case, homemade does not equal safe. As a clinical toxicologist who has managed patients poisoned with nicotine solutions, this practice is potentially life-threatening and should be avoided.

by Patti Sue Ogletree
on June 21, 2021 at 6:14 PM
Wow. This is an eye opener. good information. Interesting.
Thanks for publishing.

University of California
Agriculture and Natural Resources

UCCE Master Gardener Program
Glenn County

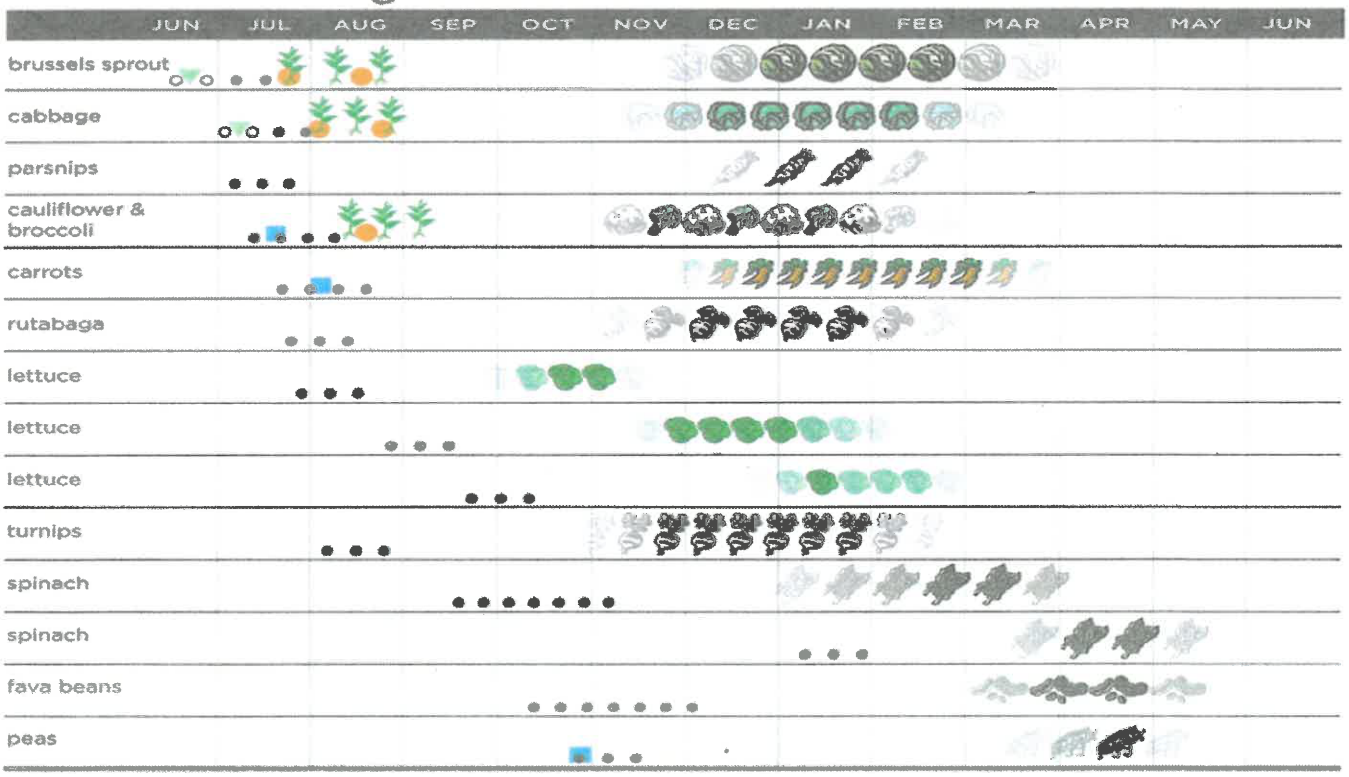
Glenn County Planting Guide for Vegetables

- preferred time to seed (direct seed in a cold frame or greenhouse)
- preferred time to transplant
- preferred time to direct seed
- o o o o seed in cold frame
- • • • direct seed in the ground
- transplanting

NOTE
Seeding and transplanting dates may vary between varieties. Please check seed package or nursery for additional information.

Weather can modify planting and harvesting dates.

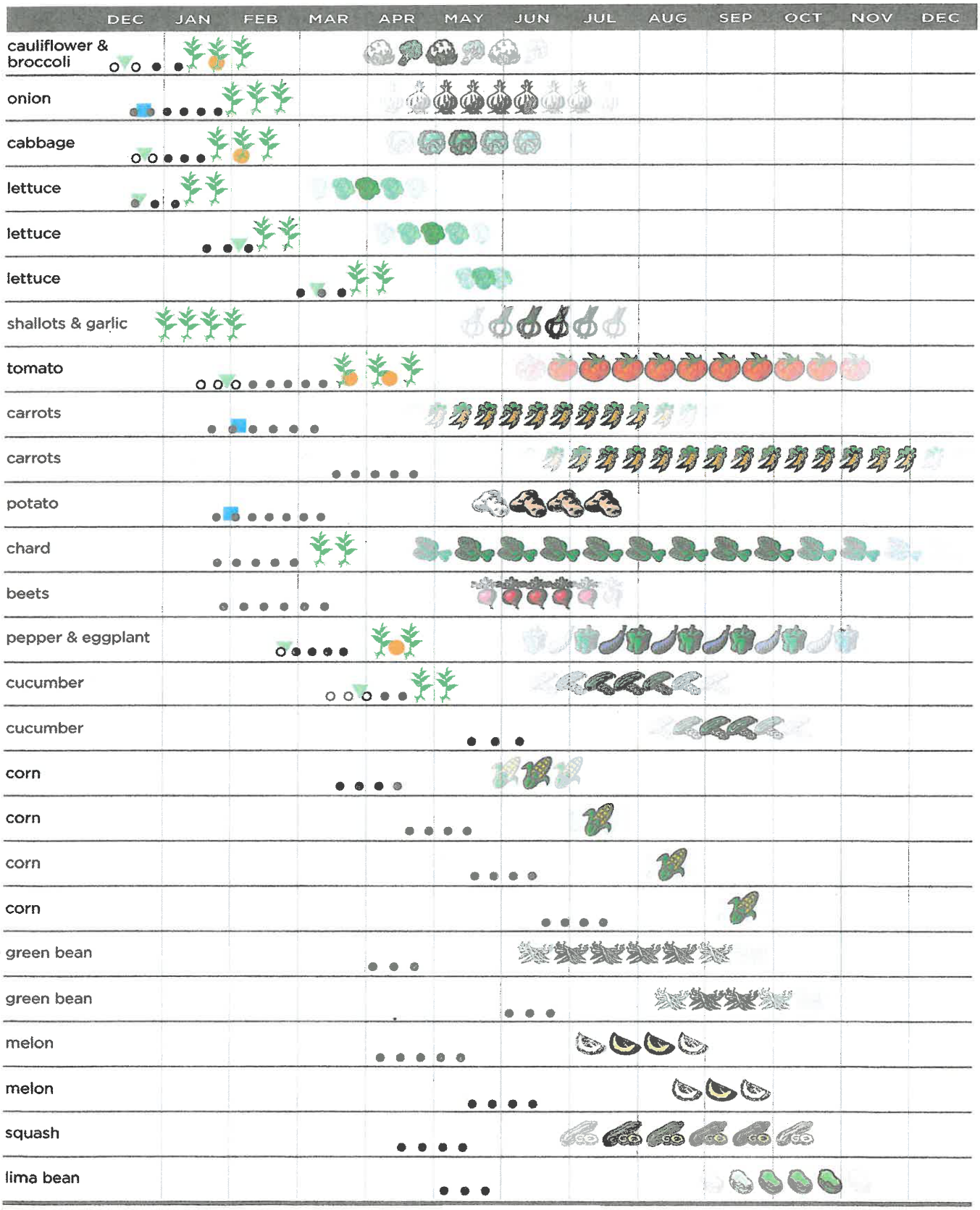
Summer/Fall Vegetables



Information provided by
Robert Norris, UC Davis,
Department of Plant Sciences, 2008.

Glenn County Master Gardeners
Hotline (530) 865-1154
Web www.ucanr.edu/sites/glennmg

Winter/Spring Vegetables for Glenn County



Glenn County Master Gardeners • **Hotline** (530) 865-1154 • **Web** www.ucanr.edu/sites/glennmg