# OSU MG Tri-County Study Group
# Diagnostic Show-and-Tell Highlights: April 4, 2022

**Prepared by Elizabeth Price**

Join our friendly Study Group on the first Monday of each month from 1 to 3 pm for Diagnostic Show-and-Tell. We explore bugs, diseases and more. Below are a few samples of what MGs presented at our last session. For more information contact Margaret Bayne: tricountymgstudygroup@gmail.com

## Herb Robert weed (*Geranium robertianum*)




Linda presented an annual weed found in both disturbed woodland areas and ornamental gardens. Also known as stinky Bob, in addition to its creosote-like aroma, this weed is identified by its lacy leaves and five-petaled pink flowers that form exploding seed pods. The weed's unique cheek-shaped cotyledons, prevalent right now, make it easy to spot and remove early in its life cycle. Though Linda noted that it is an attractive plant, if left unattended it seeds down vigorously, forming dense patches that outcompete other desired annuals and perennials. Herb Robert is easily removed by hand weeding. Click here to learn more.

**Leaf and seed pod images by Linda Myers; cotyledon image by Elizabeth Price**

## Crown gall bacteria (*Agrobacterium tumefaciens*) on variegated Japanese euonymus (*Euonymus japonicus*)

**Crown galls begin light colored (2½")**

**Corky interior of gall**

**Old brown gall (3")**

Elizabeth presented cauliflower-like galls she had pruned from an euonymus shrub. The discussion focused on both the practical aspects of dealing with crown gall in the garden and the fascinating science crown gall has inspired.

**The practical**: Crown gall bacteria infect dozens of plant species. The bacteria live in the soil, infecting the plant through small wounds at the soil level caused by emerging roots or underground chewing insects, as well as through wounds higher in the plant from pruning or frost. Gall formation begins about two weeks after infection.

The bacteria stimulate the host to produce light-colored tumor-like galls that age to a hard brown. The host typically endures a few galls well, in which case one can just prune away the galls, making sure to disinfect tools afterwards. However, a heavy infestation can severely weaken the host, in which case one is advised to remove the entire plant. Place infected plant material in the trash bin and not the yard debris bin; do not compost on site.

**The science**: The unique mechanism by which this bacteria inserts its genetic material into the host DNA, signaling it to produce gall-making hormones, as well as nutrients for the bacteria, has been extensively studied and replicated by plant scientists as a means of genetically engineering desirable traits into plant DNA, such as resistance to viruses and herbicides. The Study Group found this topic so interesting that one member, Ginny, spontaneously volunteered to create a study guide and lead a session on it. Thanks Ginny! **Images by Elizabeth Price**

Sources: *Plant Galls* by Margaret Redfern, PNW Disease Handbook

## Black cutworm (*Agrotis ipsilon*) in strawberries


Rhonda's husband found a recently deceased black cutworm while weeding their strawberry patch. A large 1½-inch caterpillar (full-grown) that feeds on the foliage of a number of vegetables, very few typically survive Oregon's winters, migrating from warmer areas in June, though still managing to produce more than one generations a year. After feeding on foliage, the black cutworm molts and moves to the soil surface or into the soil where it feeds for a month before pupating. Click here to learn more and here.

**Image by Rhonda Frick-Wright**