

Want to learn whether your soil is healthy for vegetable gardening?

# gardenroots

*The Dewey-Humboldt, Arizona Garden Project*

Gardenroots was designed in response to your research interests.

## Drop Samples off at UA Yavapai Cooperative Extension Office

Address: 840 Rodeo Dr, Bldg C, Prescott, AZ 86305  
Hours: Monday - Friday , 9AM - 4PM, closed from 12 - 1PM daily  
Telephone: 928-445-6590  
website: <http://extension.arizona.edu/yavapai>

### Gardenroots Contacts

#### General and Sample Collection Questions:

- Monica Ramirez, [mdramire@email.arizona.edu](mailto:mdramire@email.arizona.edu), 520-260-6620
- Janick Artiola, [jartiola@cals.arizona.edu](mailto:jartiola@cals.arizona.edu), 520-621-3516

#### Sample Drop-Off Concerns or Questions:

- Jeff Schalaus, [jschalau@ag.arizona.edu](mailto:jschalau@ag.arizona.edu), 928-445-6590 ext. 224

### Vegetable Gardening Resources

#### Arizona Master Gardener Manual

- <http://cals.arizona.edu/pubs/garden/mg/>

#### Backyard Gardener

- <http://cals.arizona.edu/yavapai/anr/hort/byg/>

### What is Citizen Science?

Citizen Science is a way for you to learn about soil, water, and plant science by participating in scientific studies.

This is a partnership between the community of Dewey-Humboldt, Arizona and scientists at the University of Arizona.

The work you do, and the samples you collect will be used in a scientific study to determine if your proximity to the Iron King Mine and Humboldt Smelter Site affects the quality of your vegetables.

This manual provides step-by-step instructions on how to collect water, soil & vegetable samples from your garden for analysis by University of Arizona laboratories.



Gardenroots was made possible by:

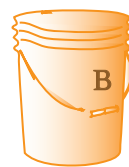
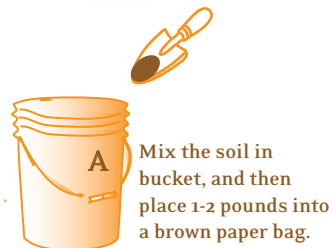
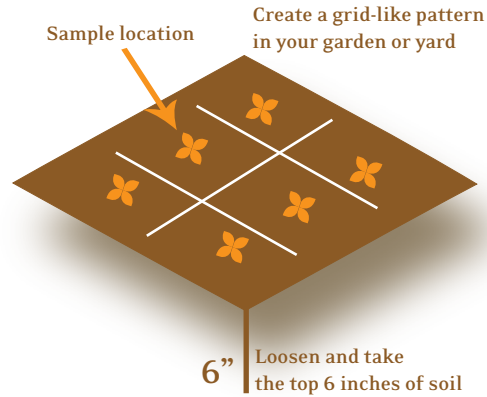


Gardenroots Instructional Manual

Find out more at [superfund.pharmacy.arizona.edu/gardenroots.php](http://superfund.pharmacy.arizona.edu/gardenroots.php)

## 1. Collecting Soil Samples from your Garden

1. Select (mark) six locations (spots) in a roughly grid-like pattern to sample in your garden.
2. Using the hand trowel provided, loosen the top 6" of each of the six soil spots.
3. At each location take one full scoop of soil and place it into a 5-gallon bucket labeled A.
4. Mix the six soil samples thoroughly inside the bucket. This process is called sample bulking.
5. Place about 1-2 pounds of the bulked soil sample into a brown paper bag and attach the label provided.
6. Place the soil paper bag into a 1-gallon Ziploc bag making sure that the label on the brown paper bag is clearly visible.
7. Soil should now be air-dried or kept cold until you are ready to drop-off at the Yavapai County Extension Office.



## 2. Collecting Soil Samples from your Yard

You will do the same soil sampling process as you did above for your garden soil, but now for your yard soil. Complete steps 1-7 above, note for step 3 now use the 5-gallon bucket labeled B.

### Drop-Off Checklist:

- 1) Garden soil sample in paper bag and then 1-gallon Ziploc bag
- 2) Yard soil sample in paper bag and then 1-gallon Ziploc bag
- 3) 3 water sample bottles in a 1-gallon Ziploc bag
- 4) Vegetable samples individually bagged, and then in a 1-gallon Ziploc bag

Drop off all samples at the UA Yavapai Cooperative Extension Office, 840 Rodeo Dr, Bldg C, Prescott, AZ 86305

## 3. Collecting Water Samples (preferably in the late afternoon)

Using the water source you use to irrigate your garden:

1. Turn on the water (hose) and allow to flow for 2-3 minutes. During this you may fill out the labels of the bottles with all the information requested.
2. Slow the flow to a small trickle and carefully fill each bottle until water overflows.
3. Once full quickly cap each bottle and seal.
4. Place the 3 bottles in a 1-gallon Ziploc bag, seal and store in a refrigerator (do NOT freeze water samples) until you are ready to drop off at the Yavapai County Extension Office.



## 4. Collecting Vegetable Samples

1. Collect a minimum of 4-5 ounces of 4 different vegetables (leaf, root, or fruit) from your garden and place it temporarily into a brown bag.
2. Take the vegetable sample(s) to the washing area, which should have the following (see diagram below):  
**Tub 1** filled with tap water. Use brush to clean all soil off the vegetable sample and rinse.  
**Tub 2** filled with provided distilled water and 1 tablespoon of bleach. Dip your sample several times in the solution.
3. Place each sample on clean paper towels and if possible allow to air dry indoors, away from dust for 30+ minutes. Additionally, clean paper towel may be used to soak up excess water as necessary. (note: plant tissue does not need to be fully dried before next step)
4. Place each vegetable sample in separate Ziploc bag(s) that have been pre-labeled, and remove all air from bag before sealing. Then place all your bagged vegetable samples in a 1-gallon Ziploc bag.
5. Promptly place the bag in the refrigerator till you are ready to drop off at the Yavapai County Extension Office.

### Vegetable Washing Area as described in Steps 2 and 3

