



Linking Edible Arizona Forests

## Growing Edible Arizona Forests, An Illustrated Guide

Excerpt from *leafnetworkaz.org*

### Edible Tree Guide

#### CHOOSE Planting Site and Design

- Harvest Air Conditioning Condensate

### Harvest Air Conditioning Condensate

Many sites have air conditioning (AC) units. Moisture in the air can condense on the cold parts of the AC units and collect at the bottom of the units. From here, this water may be diverted through a drainpipe outside to the ground or to the sewer. If the AC unit is located outside, water may collect in soil by the unit. If this AC condensate water is routed toward a nearby edible tree instead, it can help support the tree, especially during more humid times of year when more water condenses on the cold pipes. AC condensate is distilled water, so it is best used in combination with other water sources when applied to the soil of edible trees.

The volume of AC condensate is higher when temperatures are hot and air is humid, and will change month-to-month depending on these factors and how often the AC unit is running at a site. Check your AC unit to see how condensate water is disposed of and see if you could put this to beneficial use. Estimates of how much AC condensate can be harvested vary substantially, so to find out potential at your site, use a measuring cup and watch to measure how much water is being released within a few minutes. This information can be used to calculate gallons per day.

A simple way to use this water at a residential site is to reroute and/or extend the AC condensate drainpipe using a fitting and hose so it can drain via gravity flow to a nearby edible tree.



Using a measuring cup and a watch, this AC unit was determined to yield about 2 cups of water every five minutes on a humid August day. This equals around 36 gallons every 24 hours in these conditions. This amount would drop to zero on a cold, dry winter day when the AC unit is turned off. AC condensate water could be routed to nearby edible trees by adding a simple threaded connection to the condensate outlet pipe and attaching a garden hose.

### ADDITIONAL RESOURCES

#### AC Condensate design and use

- *Air conditioners can water plants while cooling air*, By Vanessa Lentini. In Southwest Environment, Department of Soil, Water and Environmental Science: [https://swes.cals.arizona.edu/environmental\\_writing/stories/fall%202013/lentini.html](https://swes.cals.arizona.edu/environmental_writing/stories/fall%202013/lentini.html)
- Rainwater Harvesting for Drylands and Beyond, By Brad Lancaster: <http://www.harvestingrainwater.com/condensate-harvesting/publications-online-resources/>
- Condensate Water Introduction, Alliance for Water Efficiency: [http://www.allianceforwaterefficiency.org/Condensate\\_Water\\_Introduction.aspx](http://www.allianceforwaterefficiency.org/Condensate_Water_Introduction.aspx)