



Growing Edible Arizona Forests, An Illustrated Guide

Excerpt from leafnetworkaz.org

Edible Tree Guide

CHOOSE Planting Site and Design

- Water Supplies - Harvest Condensate Water

Harvest Condensate Water

Moisture in humid air condenses on cooling coils inside air conditioners, ice machines and other cold-producing machines and must be discharged from the machines. This discharged condensate water can be harvested to support plants.

Sometimes condensate water is discharged through inaccessible pipes to the sewer or another discharge point. However, if condensate water is discharged to an accessible location, determine if this water can be routed to support a nearby tree.

The volume of condensate water produced is higher when air is humid. This volume will change month-to-month depending on humidity and how often an air conditioner or other cold-producing machine is operated. To find out potential condensate production at your site, use a measuring cup and watch to measure the volume of water released within a set period of time and convert this to gallons per day.

Many people have air conditioners that are operated many hours a day in hot months. Check your AC unit to see how condensate water is discharged. If you can access this water stream, see if you could put this to beneficial use. One simple way to use water at a residential site is to reroute and/or extend the AC condensate drainpipe using a fitting and pipe or hose to drain is using gravity flow to a nearby edible tree. **CAUTION: DO NOT ALLOW WATER TO BACK UP IN THE CONDENSATE DISCHARGE PIPE—THIS COULD DAMAGE THE AIR CONDITIONING UNIT.**

Condensate is distilled water, so it is best used in combination with other water sources when applied to the soil of edible trees.



Using a measuring cup, 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.



Water dripping from an ice machine condensate outlet fills a water glass.



Air conditioning condensate and rooftop runoff are harvested in an 11,000 gallon tank at University of Arizona, College of Architecture and Landscape Architecture (CALA) building Underwood Family Sonoran Landscape Laboratory. Tanked water, along with tank overflow and greywater from a drinking fountain is directed into the landscape to support a lush native tree garden, as shown in photos on this page.



ADDITIONAL RESOURCES

Condensate harvesting

- Rainwater Harvesting for Drylands and Beyond, By Brad Lancaster:
<https://www.harvestingrainwater.com/water-harvesting/harvests-of-different-waters/condensate-harvesting/>
- San Antonio Condensate Collection and Use Manual for Commercial Building:
https://apps.saws.org/Conservation/Commercial/Condensate/docs/SACCUMannual_20131021.pdf