



SCOUTING

Hops are susceptible to a few specific pests and diseases that you should start scouting for immediately in the spring. While powdery and downy mildew don't seem to be a major nuisance in Central Oregon thanks to our dry climate, aphids and spider mites are. Both live on the undersides of leaves and feed on hops by sucking out the plant's juices. Small populations are tolerable, but the real problem is around harvest time when they can infect cones and render them unusable. Know

what to look for and control infestations early and responsibly, spraying only when necessary. Learn how to implement an IPM program, and find complete pest and disease information at ipm.wsu.edu/field/pdf/hopandbook2009.pdf.



USES

Hops aren't just for brewing. Their antiseptic qualities have inspired research into supplements for cattle and other large animals. And they were once commonly used in pillows, salves, supplements, and teas to induce calming and sleep. You can craft with them, cook with

them, make soaps and lotions out of them, decorate with them, eat them, even pickle them. Many local farms also sell entire bines for wedding and holiday decorations. Find all of this on our Pinterest page (including plenty of brewing recipes, of course).

LINKS

Soil Testing: **Soiltest Farm Consultants**

Moses Lake, WA
(509) 765-1622
soiltestlab.com

Hop Profile Testing: **Ag Health Laboratories**

Sunnyside, WA
(509) 836-2020
aghealthlabs.com/hops.html

Oregon Hops and Brewing Archive

guides.library.oregonstate.edu/brewingarchives

Guide for Integrated Pest Management in Hops

ipm.wsu.edu/field/pdf/hopandbook2009.pdf

Local Farms

Tumalo Hop Farm

Tumalo, OR
(541) 388-5626
tumalohops.com

Cascade Hop Farm

Tumalo, OR
(530) 520-2061
cascadephopfarm.com

Smith Rock Hop Farm

Terrebonne, OR
(541) 204-0467
smithrockhopfarm.com

Cloverdale Hops

Bend, OR
(541) 699-7400
cloverdalehops.com

Worthy Garden Club
Bend, OR

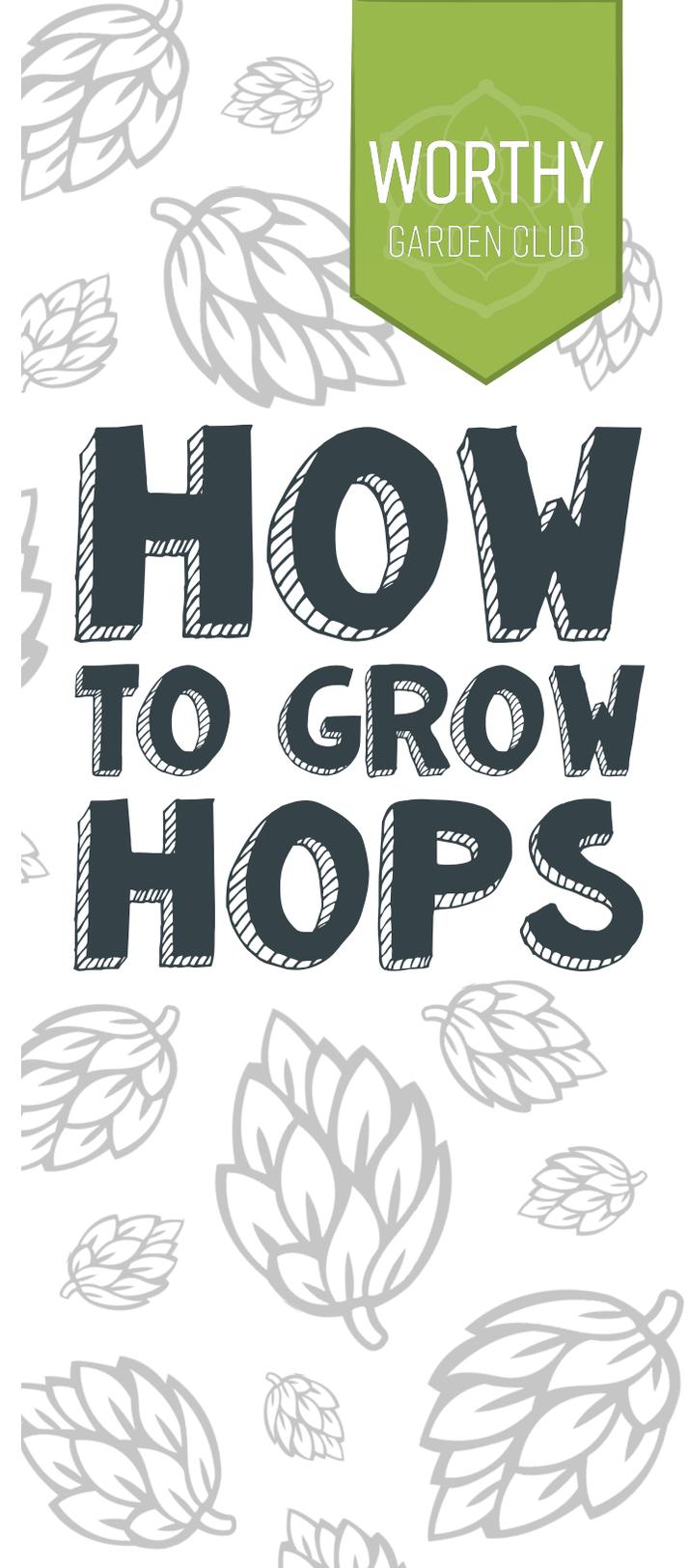
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WORTHY
GARDEN CLUB



HOW TO GROW HOPS

SITE

Hops thrive in full sun and deep, fertile, well drained soils with a pH between 6.0 and 6.5 (although they can tolerate up to 7.5). While they require lots of water during the summer months, their roots will rot if grown in soggy soil. So stay away from heavy clay; plant in sandy or silty loam. Keep organic matter between three and ten percent by starting with high-quality soil and adding compost to your hop beds each spring and fall. This replenishes nutrients and improves soil tilth and moisture retention. Simple soil tests give accurate pH and nutrient level readings, while soil labs can provide a more complete profile. Correct any major soil issues BEFORE planting. Space your hops two to three feet apart, and keep away from surrounding plants so they don't block light for other sun-loving species. Hops can grow up to 25' in one season, so make sure you've provided plenty of space to climb.

WATER

Hops need deep, consistent watering throughout the growing season to avoid drought stress. A single hop plant can use several gallons of water per day during the hot summer months. Water early in the morning with a drip line if possible as wet foliage encourages the spread of diseases like downy and powdery mildew, especially in cool night time temps. Let the top couple of inches dry out between waterings to avoid soggy soil.

NUTRIENTS

Begin fertilizing your hops in April or May and stop around the fourth of July. There are many different ways to do this, so use the method with which you're most comfortable. To grow organically, top dress with steer manure and mix in feather meal, blood meal, or an all-purpose blend at the base of your plants every couple of weeks. Fertilizing this way reduces the chance of burning and improves overall soil health. Or you can really push your plants by going the synthetic route and fertilize with a tablespoon of urea (46-0-0) or a 16-16-16 formula every two weeks. This method usually produces higher yields but can also burn your plants if not applied correctly.

TRAINING

A traditional commercial trellis consists of sisal rope anchored to the ground and tied to an overhead cable system, but there are endless variations to this design. Essentially, you want to provide some sort of structure for your hops to climb, so you can tie string to existing structures, like a tree or corner of a house; or just have the plant grow over an arbor or fence. Check out our Pinterest page for plenty of examples. Start training your hops once they've grown 18-24" tall. This is usually mid-May in Central Oregon. To train, pick two or three of the healthiest vines and wind them clockwise around the string. Handle carefully as the new shoots are very fragile! If you break one, simply unwind and train a new vine. A broken vine can only grow sideways, not upwards. There are tiny hairs along the stem that keep the vines secure once trained, but they can also irritate your skin, so wear long sleeves and gloves when working with the plants. Retrain any vines knocked down after a windstorm.

HARVEST

Hops are ready to harvest anywhere between mid August to mid September. How can you tell? Pick a few cones from the upper canopy and squish between your thumb and forefinger. Mature cones will bounce back to their original shape and feel dry and papery, while immature cones will remain compressed and feel moist. Upon dissection, mature hops contain plenty of bright yellow lupulin inside and give off a "hoppy" aroma. Immature hops smell vegetal. But don't wait too long! If left to dry on the bine, cones will shatter to the touch, making harvesting a nightmare. If you're not using your hops right away, dry on a window screen out of direct sunlight for a couple of days after picking. Ideally, they should be dried down to 8-12%, but a good estimation is if the stems break cleanly in two when bent. Vacuum seal to retain freshness for up to a year.

WINTER

After harvesting, allow your hops to die back naturally. Like the fall leaf change in trees, this guarantees a sizable carbohydrate store to boost next year's growth. Once all the leaves have yellowed and dropped, cut vines back to a couple inches from the ground and clean up any lingering debris. Pests and diseases can overwinter in old foliage. To get rhizomes for next year, bury a couple of the strongest vines under an inch of soil. They'll be ready to propagate the following spring.