

Cornell Cooperative Extension

Putnam County

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Homegrown Hops

Humulus lupulus

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Gardeners, farmers, and outdoors-folk alike can find refuge in a glass of cold beer after a long day outside. Beer is often a refreshing drink of choice, and hops lend that unmistakable bitter-herbal flavor we know and love in our beer. Have you ever stopped and wondered, “Hey, could I grow hops?” The answer is a resounding, “Yes!”. Hops are relatively easy for home gardeners to grow. This year we will be growing hops in our demonstration garden at the CCE office, located at 1 Geneva Rd., Brewster, NY. I have learned a lot as I’ve prepared for this new endeavor and am excited to share what I’ve learned with you.



Caption: Hops cones make great decorations.

Why would I want to grow hops?

If you brew beer or know someone who does, growing your own hops can be a highly rewarding experience. It doesn’t get much more local than that, and you can be a part of your brewing process from plant to bottle. They are also visually appealing plants that can be used as climbing vegetation to shade a patio, and be picked to use in decorations for the fall. Lastly, hops emit a smell towards the end of the summer that smells like, well, hops!



Caption: Commercial hops are grown on hops twine supported by poles.

What conditions to hops need to grow?

Hops need full sun and well-drained soil with a pH of 6.0-8.0. Plant like varieties 2-3’ apart, and separate varieties at least 5’ apart. They are heavy feeders and will require fertilization. You may also add compost to the site before you plant to build soil tilth (Improves drainage and increases water holding capacity). During the first year while the root system is establishing, your hop plant will need frequent shallow watering. After that, fewer, deeper waterings will suffice. Mulching around your plant will help minimize weed competition and maintain moisture for the root system.

Your hop plant will also need something to climb. Hops are bines, meaning they climb by wrapping their whole stem around a support. You can use a pole, a trellis, or hops twine for your hop to grow on. You can also train them to grow horizontally if you don’t have vertical space. Just do a search online of hops trellises for inspiration. Don’t put your hop plant near any electrical wires, poles, or anything else you don’t want them climbing on.



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Caption: You can train hops to grow up twine or a pre-existing fence.

When the bines are two to three feet tall, begin to train them to climb the trellis you've installed. Prune side shoots so that there are two or three strong bines growing. Even if it pains you, trim off the side shoots. Your hops will be much more productive for it and will look less like a wonky mess in your yard.

Pests and Disease

Hops are prone to a few diseases and pests. Downy mildew (*Pseudoperonospora humuli*) appears as a silvery film on leaves, or as leaves growing brittle and spikey. Remove these leaves as soon as you see them. Excess moisture can speed infection, so drip irrigation is the best choice to avoid wetting the foliage. You can even remove foliage from the bottom three feet of your bines without affecting the harvest.

Scout for aphids frequently by checking the undersides of leaves for them. They appear as small green insects, often seen *en masse* because they reproduce so quickly. Spider mites are even smaller than aphids, and evidence of them appears as white webbing on the undersides of leaves. If you see your hops cones turning a reddish-rust color you can almost be certain you have spider mites.

Keep on the lookout for a new invasive species in our area, the Spotted Lanternfly. Hops are one of their favorite crops to visit. If you see one, take a picture and send it to spottedlanternfly@dec.ny.gov. Learn more about Spotted Lanternfly and its identification at nysipm.cornell.edu.

Where can I buy hops?

There are many online retailers that will sell you a hop rhizome or growing plant. Hops are dioecious, meaning there are male and female plants. When you buy your plants, you'll be receiving the female varieties because they produce the cones needed for brewing. Some local garden centers also sell hops, although the variety tends to be limited to only the most popular varieties.



Caption: Female hop inflorescences will turn into cones after pollination.

What variety of hops should I buy?

There are several cultivated varieties of hops you can buy in the U.S. They each have their own disease resistance, cone size and shape, and taste profile. Certain hops are used for specific kinds of beer. For example, Citra and Chinook hops are often used in Pale Ales, adding the popular bitter flavor to the beer. Whereas Fuggle are used in American Ales because they add more of an aromatic feature than a taste to the beer. Looking for hops that add a bitter flavor *and* aroma to your beer, try Centennial. We will be growing Fuggle and Nugget hops in our garden.

How and when do I harvest my hops?

In our area, hops are generally ready to harvest in August-September. You'll know their ready when they have a papery feel and have lightened in

color. If you squeeze a cone and feels sticky and smells hoppy (thanks to the substance called lupulin), then it's harvest time. You can dehydrate your hops in a food dehydrator or vented oven. Dry your hops at a maximum of 140 degrees Fahrenheit. They are done when they are springy to the touch and the lupulin powder falls out easily. The time will vary based on your specific conditions, but expect it to take about three days. Store your cones in a zipped plastic bag in the freezer and when it's time to brew, thaw and enjoy!



Caption: Harvesting cones from a hop bine.

Please let us know if you decide to grow hops this summer! Tweet, Instagram, or leave us a Facebook comment @cceputnam or send us an email putnam@cornell.edu.

Keep a lookout for more about hops in our newsletter coming out this fall. Follow our hops adventure this summer on social media, @cceputnam.