

Cornell Cooperative Extension Franklin County

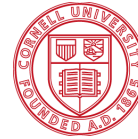
What's Up with Hops?

The Value of Petiole Testing

Petiole testing is a recommended method for determining plant nutrient needs and helps to detect potential deficiencies. Tissue testing, also known as petiole testing can help producers identify deficiencies throughout the critical growth stages. The results of the test tells growers if the plant has enough nutrients to get a good hop harvest. If the results come back and some nutrients are low, growers can foliar apply nutrients in small concentrations to the leaves of the plants to increase nutrient content for optimal growth.

How to Take a Sample...

Tissue sampling also known as petiole testing is done when mature hop plants are 5-6 feet off the ground. Tissue sampling should be done once a year and one of the best ways to use the test results is to compare them to the previous year's results and hop yields. At the time of sampling, you should take a random sample of about 100 petioles from 15-20 different plants of each hop variety being sure to keep the hop varieties separated. Petioles should be kept in **paper sample bags** that can be obtained at the CCE Franklin office and separated by variety. Samples sent to Agro-One Soils Laboratory cost \$24 and the full test includes N, P, K, Ca, Mg, S, Zn, Cu, Fe, B and Mn. For additional information on collecting a sample, visit <http://dairyone.com/wp-content/uploads/2014/01/Tissue-Analysis-Guidelines-Field-Crops-Vegetables-Hop.pdf>



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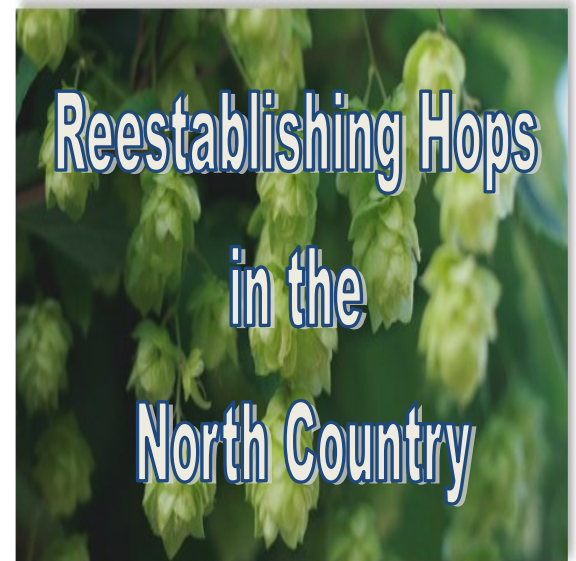
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Newsletter Spotlight

Find out the value of petiole testing and information on how to do so for your own hop yard as well as how to submit a sample.

"Don't judge each day by the harvest you reap but by the seeds that you plant"

-Robert Louis Stevenson



Questions or comments? Email us at rlevitre@cornell.edu or arg298@cornell.edu or call (518)-483-7403.

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How to Submit a Sample

Where?

Petiole samples should be mailed to a tissue testing laboratory after collection and obtaining and completing the correct form. The form can be found using the link under the laboratory. Some options include:

Agro-One Soils Laboratory (Form PTV)

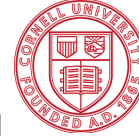
<http://dairyone.com/wp-content/uploads/2014/01/Tissue-Analysis-Vegetables-Hops-EF3.pdf>

Dairy One
730 Warren Road
Ithaca, NY 14850

Servi-Tech Laboratories (Recommended by Ron Godin)

<http://www.servitechlabs.com/Services/Plant%20Tissue/tabid/69/Default.aspx>

Servi-Tech Laboratories
1816 East Wyatt Earp
Dodge City, KS 67801



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pet-i-ole (noun) botany
The stalk that joins a leaf to a stem; leafstalk

Interpreting your results...

Unfortunately both labs provide you with RESULTS ONLY which means that no interpretation or nutrient guidelines will be provided. In order to interpret your results you can:

- 1) Email your results to Ron Godin, Hops Agronomist/Soil Scientist, from Colorado who will interpret them for you and give you recommendation— rgodin@skybeam.com
- 2) Use this table created by Dr. Rob Serrine from Michigan State University Extension that lists the optimum nutrient ranges for hops, paying special attention to Nitrogen, Zinc and Boron— file:///C:/Users/Fair_User/Downloads/petiole%20test%20range%20optimum%20Feb%202017.xlsx.pdf