

Media Relations

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UNH Research Looks at How to Grow Spinach in a New Hampshire Winter



Graduate student Kaitlyn Orde prepares to harvest spinach in February 2016. Credit: Ben Hill/UNH

DURHAM, N.H. – New Hampshire growers interested in adding spinach to their winter crop production soon will have additional information to help them select which varieties to grow and when to plant, thanks to a research project underway at the University of New Hampshire.

Becky Sideman, a researcher with the NH Agricultural Experiment Station and [extension](#) professor of sustainable horticulture production; Kaitlyn Orde, a graduate student in agricultural sciences; and Connor Eaton, a graduate student in plant biology, are conducting a trial in an unheated high-tunnel environment at [NH Agricultural Experiment Station's](#) Woodman Horticultural Research Farm to determine the best spinach varieties and planting dates for winter production in New Hampshire.

“The traditional growing season in New Hampshire is very short, limiting the period for local food production.

Growing systems that allow for an extended period of production can help support agriculture in the state and supply more locally produced food on a more consistent basis,” Orde said.

Although the research project is ongoing, scientists report they already have seen great variation in plant type and growth habit between varieties, affecting ease and pace of harvest. They also have seen differences in leaf size, color, and texture, leading them to theorize that some varieties may be better suited for fresh eating, such as sold a salad mix or used in cooking. They stress, though, that all are delicious raw.

According to Orde, researchers also have found that winter spinach production is incredibly low maintenance. Aside from harvesting and the occasional irrigation or pest control, it has been very

easy to produce high-quality greens. Researchers have not encountered any major challenges this year, and the spinach has been very productive due to the warm weather.

Researchers are collecting yield, sugar content, ease of harvest, and average leaf size measurements from eight spinach varieties planted on six different dates from mid-September to early November. The varieties UNH is using are Regiment, Tyee, Space, Gazelle, Corvair, Renegade, Emperor, and Carmel.

This material is based upon work supported by the NH Agricultural Experiment Station, through joint funding of the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 228522, and the state of New Hampshire.

Founded in 1887, the [NH Agricultural Experiment Station](#) at the [UNH College of Life Sciences and Agriculture](#) is UNH's original research center and an elemental component of New Hampshire's land-grant university heritage and mission.

The [University of New Hampshire](#), founded in 1866, is a world-class public research university with the feel of a New England liberal arts college. A land, sea, and space-grant university, UNH is the state's flagship public institution, enrolling 13,000 undergraduate and 2,500 graduate students.

PHOTOS

https://colsa.unh.edu/nhaes/sites/colsa.unh.edu.nhaes/files/media/images/kaitlynorde_spinach.jpg
Graduate student Kaitlyn Orde prepares to harvest spinach in February 2016. Credit: Ben Hill/UNH

<https://colsa.unh.edu/nhaes/sites/colsa.unh.edu.nhaes/files/media/images/emperorandrenegade.jpg>
Here are two varieties of spinach with noticeably different growth habits, Emperor being more up right and Renegade more squat, on Dec. 11, 2015. Credit: Kaitlyn Orde/UNH

https://colsa.unh.edu/nhaes/sites/colsa.unh.edu.nhaes/files/media/images/talialevy_spinach.jpg
Undergraduate student assistant Talia Levy harvests spinach the week before Christmas on Dec. 18, 2015. The row cover you see at the end of the tunnel is removed for harvest and then replaced for added warmth. Credit: Kaitlyn Orde/UNH

<https://colsa.unh.edu/nhaes/sites/colsa.unh.edu.nhaes/files/media/images/fourvarieties.jpg>
Four varieties of spinach harvested on Feb. 19, 2016. Credit: Kaitlyn Orde/UNH

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Media Contact: [Lori Wright](#) | 603-862-1452 | NH Agricultural Experiment Station

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