

Spreadsheet-based calculator helps organic farmers use fertilizer more efficiently

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Oregon State University has developed a new spreadsheet-based tool that will allow small-scale organic farmers to more accurately estimate nutrient contributions from cover crops and fertilizers. Credit: Lynn Ketchum

Organic farmers use cover crops and organic fertilizers, compost and other amendments to add nutrients to their soil. But are they getting the best bang for their buck?

A new online tool from the Oregon State University Extension Service

does the math so that small-scale [organic farmers](#) can figure that out more precisely. Nick Andrews, an instructor with the OSU Extension Service's small farms program, helped develop the free, spreadsheet-based tool, which is called the Organic Fertilizer and Cover Crop Calculator, at smallfarms.oregonstate.edu/calculator.

"The calculator lets you estimate how much nitrogen and other nutrients your [cover crops](#) and [fertilizers](#) will provide for your next cash crop," Andrews said. "That could help you cut back on fertilizer use and benefit from your soil building practices."

Farmers can save money on fertilizer, while also using this information to reduce the risk of nutrient runoff into waterways, Andrews said. On the flip side, farmers might discover that they're not using enough fertilizer, he said.

Farmers and gardeners who don't use cover crops can still use the calculator to determine which types and amounts of organic and synthetic fertilizers to use.

The new calculator estimates the amount of nitrogen needed in pounds per 1,000 square feet while taking into account the amount of nitrogen added by cover crops and other soil amendments such as compost. The original 2010 calculator made calculations on a per acre basis.

This new calculator is most useful for small-scale farmers and experienced gardeners who are interested in refining their fertilizer programs. Before using the calculator, be sure to sample your soil. The [calculator](#) helps you account for legume cover crop nitrogen contributions and select the most cost-effective fertilizers, Andrews said.

Provided by Oregon State University

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