

Can Weeds Be Converted Into Cover Crops?

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Washington State University is taking part in a multi-institutional research project, funded by the U.S. Department of Energy, to help develop a winter cover crop that can thrive in the Pacific Northwest and beyond. Cover crops are different from cash crops as their primary job is to improve the soil. Typically, they are planted in between growing seasons to protect the soil from erosion and nutrient loss. Many cover crops can also do double duty and serve as a side income for farmers.

Pennycress has colonized much of the globe as a common weed, but the oily seeds are an ideal crop for biodiesel and jet fuels. Researchers at WSU are taking a closer look at the genetics and physiology of pennycress as it shows promise as a cover crop that improves soil health and ecosystem services.

Pennycress is a member of the Brassica family, which includes canola and other oilseeds. Wild pennycress varieties are inedible, due to high levels of a fatty acid that happens to be desirable for conversion to jet fuel. In the past few years, pennycress has been developed as a winter cover crop in the Corn Belt and is now being tested in other regions, including the Pacific Northwest. Pennycress is naturally cold and flood-tolerant and helps improve soil health by capturing nitrates that can leach into groundwater, suppressing the growth of spring weeds, and preventing erosion.

The \$1.29 million subsidiary project at WSU is part of a \$12.9 million overall project being led by Illinois State University Scientist John Sedbrook. WSU is joining collaborators at Pacific Northwest National

Laboratory's Environmental Molecular Sciences Laboratory, Oak Ridge National Laboratory, the University of Minnesota, the Donald Danforth Plant Science Center, Ohio State University, the Carnegie Institution for Science, Western Illinois University, and CoverCress, Inc. in their efforts to improve oilseed genetics.

[AgriBusiness Trading Group](#), a Peoples Company affiliate, has available for acquisition a [Pacific Northwest grain farm in Whitman County](#), one of the top wheat-producing counties in the country and home to WSU! This rolling, dryland wheat, and CRP farm lies approximately 10 miles south of LaCrosse, WA, in southeast Washington State.