Nitrogen Systems: Policy-oriented Integrated Research and Education

NSPIRE

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The NSPIRE IGERT Program is a multidisciplinary student doctoral training program designed to create a new generation of scientists with broad and rigorous training in nitrogen cycling who seamlessly integrate nitrogen cycle science for effective communication with public policy makers.

Research title: Introducing quinoa as an alternative crop for increasing agricultural sustainability in the inland Pacific Northwest

Rachel is interested in studying various practices that can make agriculture more sustainable, especially as related to nitrogen management. Her research is focused on introducing organic quinoa as an alternative crop for the Inland Pacific Northwest. Specifically, she will examine the ecological and economic impacts of incorporating quinoa into organic rotations with other crops common to the region. Quinoa has great potential to help promote more sustainable farming practices by addressing many of the challenges that organic producers face in this region, not the least of which is maintaining soil fertility. Other important sustainability indicators being evaluated include crop yield and quality, nitrogen budgets, financial performance, and weed and insect populations.

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