Soil health is an essential component to productive and sustainable almond production. Healthy soil can help decrease compaction, improve irrigation and rainwater infiltration and retention, reduce dust and erosion, and lessen disease and pest pressure. However, soil health benchmarks and targets, quantifiable markers of what “healthy” soil is, as well as the benefits to growers have not been clearly defined for almond orchards.

Our research group wants to enhance the usefulness of soil health management for almond productions by improving our understanding of soil health’s relationship to yield and tree health, orchard inputs use and environmental health.

With your help, we hope to…

- Build a soil health assessment framework based on grower experience and desires, traditional soil health measurements, plus new microbial indicators of soil health.
- Identify and quantify the relationships between soil health, tree health and resource conservation.
- Develop benchmark and target values of soil health for your region.

What we need to build a useful soil health framework for almond orchards…

1) One-time soil sample collection (spring 2019) in conventionally managed blocks and others where you have been implementing soil health building practices (ie: compost, cover crops…)
2) Management and yield history of the selected blocks, and
3) Grower perspectives during a short survey (winter 2019) and in-depth interview (spring 2019).

No management changes are necessary to participate, and treatments will not be applied.

How you will benefit…

We will provide participants with results from the soil health assessment and the benchmark values and targets for your orchards. In addition, knowledge gained from this study will be organized into a soil health factsheet and publications which will be available to you. All results will be anonymous when published and discussed at extension events.

The research will be conducted by Krista Marshall, a PhD student from UC Davis working under the supervision of Professor Amélie Gaudin in the Department of Plant Sciences (https://gaudin.ucdavis.edu). This project is funded by The Almond Board of California.

If you are interested, please contact your farm advisor Katherine Jarvis-Shean
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