

Columbia Conservation District

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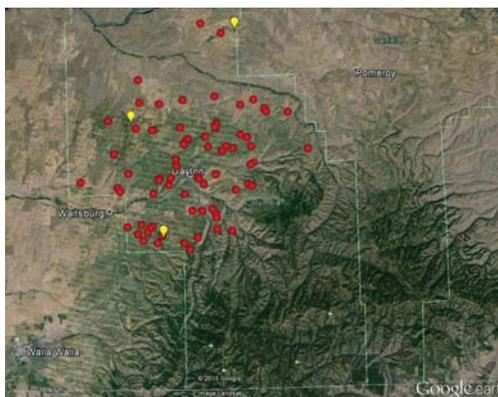


State Legislative District #16
Congressional District #5

2015 Feature Accomplishment: Managing low pH for sustainable agriculture

RESOURCE CHALLENGE

Inland Pacific Northwest soils have been considered some of the richest soils of the world. Recently soil quality concerns have developed with reports of severely reduced soil pH levels (< 4.0 pH) in the uppermost 12” of the soil profile, which can be detrimental to plants. Columbia Conservation District worked with partners to initiate a two-year soil-sampling project identifying 76 production and native sites, covering more than 150,000 acres. Results from intense and precision soil sampling in Columbia County indicate the problem is more widespread than previously thought.



Program sample sites; yellow indicate native sites. Credit: Paul Carter, WSU Extension



Applying calcium carbonate.
Credit: Gary Wegner, Columbia River Carbonates

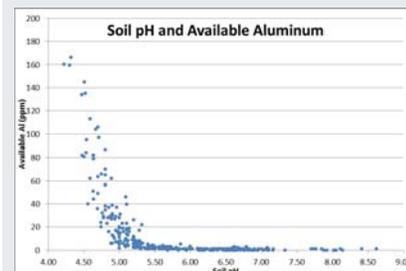
at variable rates, 50/100/200 gal/acre, on 44 sites. 2016 samples will be collected from all application plots, and findings will be presented to the cooperators.

KEY PARTNERS: WA State Conservation Commission; Private landowners/co-operators; Paul Carter, WSU/Columbia County Extension Agent; Gary Wegner, Columbia River Carbonates; Ben Moehrle, Ag Applicators; Dayton High School FFA/Ag class

PROJECT SUMMARY AND RESULTS

Samples were collected at stratified levels (0-3, 3-6, 6-12, and 12-24 inch layers). Each sample layer was analyzed for soil pH, available nutrients, and aluminum. Results indicate 97 percent of sampled production fields have < 6.0 soil pH, and 89 percent of those fields have < 5.2 pH in the top 6 inches of soil profile. A 2015 initial corrective effort applied calcium carbonate

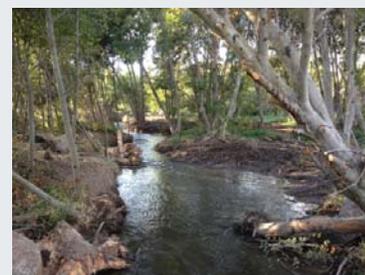
Other Accomplishments



Soil sampling results: the lower the pH (more acidic) the greater the aluminum. High aluminum reduces soil health and is toxic to cereal grains. Credit: Paul Carter, WSU Extension



Dayton High School FFA students collecting soil samples.
Credit: Kristina Knebel, FFA Advisor



Completed four Tucannon River salmon habitat projects.
Credit: Terry Bruegman, Columbia Conservation District Manager

More Work to Do!

- Provide technical assistance for 41 Conservation Reserve Enhancement Program (CREP) contracts eligible for renewal.
- Collect soil samples and yield data at 44 sites.
- Continue implementation of salmon habitat recovery project.