



# COLUMBIA CONSERVATION DISTRICT

District Manager: Terry Bruegman Board Chair: David Carlton  
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Legislative District: 16 Congressional District: 5

## Other accomplishments:



Installed splitting log structure in Tucannon River side channel for juvenile rearing habitat. Photo by Kris Below



Walla Walla Community College Watershed Ecology Program volunteers planted riparian area of previously installed project sites. Photo by Justin Pearson



Installed 50 structures for in-stream and floodplain habitat as part of Little Tucannon Post Assisted Log Structure project. Photo by Justin Pearson

## 2017 FEATURE ACCOMPLISHMENT

### MANAGING ACIDIC SOIL FOR SUSTAINABLE AGRICULTURE



Producers harvested treated and untreated plots of equal area for comparable data. Photo by Terry Bruegman

#### Resource challenge

Soil health is a major concern for production agriculture. Soils with high acidity and low pH can be detrimental to crops. In Columbia County, producers noticed increased acidity levels in the upper 12” of the soil profile. In 2013, Columbia Conservation District began research with WSU Extension that included annual intense soil sampling on 76 production and native (control) sites in 2013.

Results indicated severe stratified soil acidity layers — 90 percent of fields had less than 5.2 pH in the top 6” of the soil profile. The district applied lime (CaCO<sub>3</sub>) at variable rates (600/1200/2400 pounds per acre) in 2015.

#### Project summary and results

In 2016, producers harvested lime-treated plots along with an adjacent untreated control plot of equal area. Harvest samples from plots that received applications of lime showed mostly positive results, with average yield increases of 3.4 bushels per acre for wheat and 96 pounds per acre for peas. Soil acidity showed significant improvement on most plots. Tests indicated some micronutrients were low. Overall, the results indicate steps in the right direction, and continued work is needed to address soil acidity and pH balance. The addition of micronutrients also should be considered to achieve healthy, balanced soil improvement.



Data was obtained from each harvested area using an in-field weigh wagon. Photo by Terry Bruegman

**Key partners:** Washington State Conservation Commission; landowners/cooperators; WSU Columbia County Extension; Columbia County Ag Improvement; Columbia Wheat Growers Association

## MORE WORK TO DO

- ▶ Re-enroll expiring Conservation Reserve Enhancement Program sites to maintain environmental gains.
- ▶ Provide technical support to Columbia County Voluntary Stewardship Program plan development and implementation.
- ▶ Implement Tucannon River salmon habitat recovery projects.
- ▶ Pursue cost-share support to minimize livestock impacts.
- ▶ Pursue funding to develop the Touchet River Conceptual Design Plan for ESA-listed salmon habitat recovery.