

Natural Resources Conservation Service - Oregon

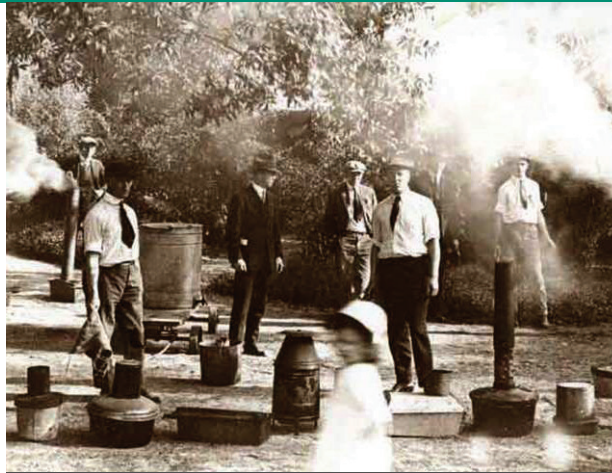
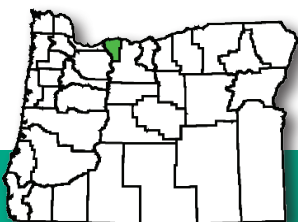
PROJECT SUMMARY

In Oregon, the USDA Natural Resources Conservation Service (NRCS) is working with landowners and partners in Hood River County to improve air quality on private orchards.

The majority of Hood River County's irrigated cropland is in orchards (almost 15,000 acres), with the main crop being pears. The rest of the irrigated land is used to produce high-value crops such as cherries, peaches, apples, blueberries, nuts and lavender.

With financial assistance from the National Air Quality Initiative (NAQI), farmers are reducing the use of high-emission, diesel-fuel smudge pots which are commonly used to protect crops from damaging spring frosts. Smudge pots have been widely used to heat orchards since the early 1900's, as shown in the above historical photograph taken in Riverside, California, in 1920. NRCS is providing financial assistance as an incentive to help growers remove smudge pots from their operations, so they can be replaced with cleaner, more efficient systems.

Published February 2016.



Hood River Air Quality Initiative

Hood River Air Quality Initiative by the Numbers

Total County Size	533 square miles or 341,120 acres
Private Cropland	26,952 acres or 8% of the county
Irrigated Cropland	16,409 acres
Irrigated Orchards	14,741 acres
Average Annual Rainfall	31.7 inches
Average Annual Temperature	50.6 degrees Farenheit
2015 NAQI Funding Awarded	\$849,879
Number of NAQI Contracts	14
Total Acres Under Contract	400
Estimated Smudge Pots Removed in 2015	3,000
Estimated Air Quality Savings from Smudge Pot Removals	54 tons of particulate matter eliminated from being released into the air by the end of 2017

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PROJECT SUMMARY

In addition to supporting smudge pot conversions through the National Air Quality Initiative, the USDA Natural Resources Conservation Service (NRCS) is also investing in clean air in Hood River, Oregon, through the Conservation Innovation Grant (CIG) program.

Administered by NRCS, the CIG program offers competitive grants to further innovative approaches to agricultural production and environmental enhancement. CIG funds may be awarded to individual agricultural producers, local and state governments, federally-recognized tribes, and non-governmental organizations such as non-profits. CIG projects are designed with technology transfer in mind. The overall goal is to incorporate new innovations into NRCS technical manuals and make them available to the agricultural community.

In 2015, NRCS awarded a CIG to Hood River County and the Columbia Gorge Fruit Growers to purchase an air curtain burner (pictured above left), with grant management assistance from Mt. Adams Resource Stewards. This machine allows growers to safely and cleanly burn diseased orchard trees and other vegetation while significantly reducing air pollution compared to traditional open pile burning.



Hood River Air Quality Conservation Innovation Grant

Fruit growers participating in the project fill out detailed data sheets every time they use the air curtain burner, providing NRCS and its partners an inventory to track the usage of the machine and to estimate its impact on reducing air pollution.

Based on the information provided so far, the air curtain burner has resulted in an estimated particulate matter reduction of 1.35 tons in 2015. Projecting that success through all of Hood River County (essentially assuming that all pile burning in the county were replaced by use of an air curtain burner), an estimated 19 tons per year of particulate matter could be eliminated from entering the air.

Hood River CIG By the Numbers	
CIG Funds Awarded	\$39,000
Participating Producers	19
Estimated particulate matter reduction in 2015	1.35 tons

PARTNERS

Hood River County • Columbia Gorge Fruit Growers •
Mt. Adams Resource Stewards • Natural Resources Conservation Service •
Private Landowners

