United States Department of Agriculture
Natural Resources Conservation Service

2013 Ranking Period 1

Air Quality Enhancement Activity – AIR03 – Replace burning of prunings, removals and other crop residues with non-burning alternatives

Enhancement Description
The use of non-burning alternatives to dispose of prunings, removals and other crop residues from orchards, vineyards and other woody perennial crops. Non-burning alternatives include chipping, grinding, shredding, mowing or composting of these materials.

Land Use Applicability
Cropland

Benefits
Burning prunings, removals and residues produces smoke, as well as other air emissions, including volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) that are precursors needed for ozone formation, and various forms of particulate matter. By replacing burning with alternatives (chipping, grinding, shredding, mowing or composting), harmful air emissions will be greatly reduced, and the resulting material usually can be used as mulch.

Conditions Where Enhancement Applies
This enhancement only applies to acres of orchards, vineyards, and other woody perennial cropping systems that produce significant residues that have used burning in prior years.

Criteria
1. A system of burning prunings, removals or residues is currently being utilized on the farm.
2. Burning of such material shall be replaced by one of the non-burning alternatives (chipping, grinding, shredding, mowing or composting).
3. Wood chips and other mulch material resulting from chipping, grinding or shredding shall be used for dust control on unpaved roadways or other farm surfaces, for bio-energy purposes, for composting, or left in orchards for natural decomposition.

Adoption Requirements
This enhancement is considered adopted when a non-burning alternatives has been utilized in prior years as a replacement to burning.

Documentation Requirements
1. A map showing farm areas where these activities were conducted and applied.
2. Dates, locations and type of non-burning alternatives used.

References

Washington State Department of Ecology, Air Quality Program (2004). Washington State Alternatives to Burning: Agricultural Practices to Help Eliminate or Reduce the Need to Burn. Edited by Donna Guske Hansen and John E. Carlson.
http://www.ecy.wa.gov/programs/air/aginfo/research_pdf_files/AlternativesAgBurn.pdf

Western Regional Air Partnership, Fire Emissions Joint Forum (2004). Non-burning Alternatives for Wildlands (Task 4.3.1.1). Prepared by Jones and Stokes, Sacramento, CA.
http://www.wrapair.org/forums/fejf/tasks/FEJFtask3.html

Western Regional Air Partnership, Fire Emissions Joint Forum (2002). Non-Burning Alternatives on Agricultural Lands (Task 4.3.1.1). Prepared by Eastern Research Group, Inc. (ERG) and Enviro-Tech Communications. ERG No.: 3261.00.005.001. http://www.wrapair.org/forums/fejf/tasks/FEJFtask4.html