



Natural Resources Conservation Service
WASHINGTON

AIR04 – Use drift reducing nozzles, low pressures, lower boom height, and adjuvants to reduce pesticide drift

CSP Enhancement Washington State Supplement

Land Use Applicability: Cropland, Pastureland

January 2014

Client/Operating Unit:

Tract Number:

Farm/Ranch Location:

Farm Number:

Specifications Date:

Field Number(s):

Planned Installation Date:

Proposed Treatment Acres:

Enhancement Description:

[Table of Contents](#)

Use drift reduction technologies to reduce the drift of agricultural chemicals away from the intended target when spraying.

Benefits

Drift reduction will reduce damage to non-target desirable plants and animal habitats and reduce pollution of water bodies. Reducing chemical drift will help to reduce both particulate matter (liquid droplets) in the air and the production of volatile organic compounds, which are an integral part of the formation of ozone, a pollutant in the lower atmosphere. Reduced chemical drift will improve water quality by minimizing the delivery of chemical compounds through the air to water bodies. This enhancement assumes all chemical applications are done according to label directions.

Conditions Where Enhancement Applies

This enhancement applies to all crop and pasture land use acres.

Criteria for using drift reducing nozzles, low pressures, lower boom height, and adjuvants to reduce pesticide drift

Implementation of this enhancement to reduce spray drift of agricultural chemicals requires the use of one or more of the following activities:

1. Use drift reduction nozzles, drops, shielding, pressure adjustment, electrostatic spray technology, or re-circulating spray technology to minimize drift of applied chemical away from targeted area while maintaining required efficacy of pesticide application.
2. Reduce sprayer pressures per the nozzle criteria to produce larger spray droplets, which have a lower tendency to drift. Do not exceed 40-45 psi sprayer pressure.
3. Reduce boom height to the minimum amount allowable (where full coverage is achieved just above the top of the plant canopy) to achieve coverage and minimize the amount of time droplets are in the air before contacting plant or soil surfaces.
4. Use spray adjuvants approved for use with the specific pesticide being applied to reduce evaporation of airborne spray droplets, keeping droplets larger so they will settle more quickly onto the targeted plants and soil.

Layout Sketch & Drawing (Provide sketch, drawings, maps, and/or aerial photographs.)

- Geo-referenced field map with all delineated treatment areas where CSP Enhancement AIR04 is to be applied.

Adoption Requirements

This enhancement is considered adopted when one or more of the above criteria have been implemented and documented to satisfy the NRCS State Office list of acceptable methods.

Documentation Requirements

Each year the following must be supplied:

1. Written documentation for the type of drift reduction technology used, and
2. Acres treated.

References*:

Field Office Technical Guide:

eFOTG, <http://www.nrcs.usda.gov/technical/efotg/>

* Some online documents may take several minutes to download.

Ozken, H.E.: New Nozzles for Spray Drift Reduction. Ohio State University Extension Fact Sheet

<http://ohioline.osu.edu/aex-fact/0523.html>

Witt, J. M.: Agricultural Spray Adjuvants. Oregon State University Extension.

<http://psep.cce.cornell.edu/facts-slides-self/facts/gen-peapp-adjuvants.aspx>

State Supplemental Information

List of acceptable drift reducing methods that are applicable to their states

Spray related activities to reduce drift include:

1. Use drift reduction nozzles, drops, shielding, pressure adjustment, electrostatic spray technology, or re-circulating spray technology to minimize drift of applied chemical away from targeted area while maintaining required efficacy of pesticide application. See Ozken, H.E. in the references for more information on drift reduction nozzles.
2. Reduce sprayer pressure per the nozzle criteria and label directions for particle size required for efficacy, to produce larger spray droplets. This activity can reduce risk of drift when using certain products. Maintain spray pressure below 40-45 psi.
3. Reduce boom height to the minimum amount allowable (where full coverage is achieved just above the top of the plant canopy) to achieve coverage and minimize the amount of time the spray droplets are in the air before contacting plant or soil surfaces.
4. Use adjuvants that are approved for use with the specific pesticide being applied to reduce evaporation of airborne spray droplets, keeping droplets larger so they will settle more quickly on the targeted plants and soil. See Witt, J.M. for more information on types of spray adjuvant.

