



CONSERVATION ENHANCEMENT ACTIVITY

E595A

CONSERVATION STEWARDSHIP PROGRAM

Reduce risk of pesticides in surface water by utilizing precision pesticide application techniques

Conservation Practice 595: Integrated Pest Management

APPLICABLE LAND USE: Crop (annual & mixed); Crop (perennial)

RESOURCE CONCERN ADDRESSED: Water Quality Degradation

ENHANCEMENT LIFE SPAN: 1 year

Enhancement Description

Utilize precision application techniques to reduce risk of pesticides in surface water by reducing total amount of chemical applied and reducing the potential for delivery of chemicals into water bodies.

Criteria

- Documentation of producer’s record of integrated pest management meeting all Conservation Practice Standard Integrated Pest Management (CPS 595) general criteria
- Use of GPS or other geospatial technologies is required to document application and site-specific compliance with all label requirements for controlling non-target application.
- Utilize one or more of the following techniques to reduce the total amount of chemical applied and reduce the potential for delivery of chemicals into water bodies:
 - Precision guidance system which reduces ground or aerial spray overlap to less than 12 inches

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- Variable rate technology (VRT) which allows rate of pesticide application to dynamically change for site specific applications
- “Smart sprayer” technology which utilizes automatic sensors and computer controlled nozzles to turn individual nozzles on and off

Documentation and Implementation Requirements

Participant will:

- Prior to implementation, provide documentation of implementation of integrated pest management meeting all Conservation Practice Standard Integrated Pest Management (CPS 595) general criteria and additional criteria to prevent or mitigate off-site pesticide risks to water quality from leaching, solution runoff, and adsorbed runoff losses.
- During implementation, keep records of applications using the selected technology with maps and/or tabular data.
- After implementation, make the following items available for review by NRCS to verify implementation of the enhancement:
 - As applied records of actual applications using the selected technology (maps and/or tabular statistics).

NRCS will:

- Prior to implementation, provide and explain NRCS Conservation Practice Standard Integrated Pest Management (CPS 595) as it relates to implementing this enhancement.
- As needed, provide technical additional assistance to the participant as requested.
- After implementation, verify implementation of the enhancement, by reviewing records created during enhancement implementation.

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NRCS Documentation Review:

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

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Participant Name _____ Contract Number _____

Total Acres Applied _____ Fiscal Year Completed _____

NRCS Technical Adequacy Signature

Date



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SOUTH DAKOTA (SD) SUPPLEMENT TO CONSERVATION ENHANCEMENT ACTIVITY

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Additional Criteria for SD:

In addition to the criteria specified in the national job sheet E595A, the following additional criteria apply in SD:

- Precision guidance system which reduces ground or aerial spray overlap to less than 12 inches.
 - Producer could make a change to his guidance system that would be more accurate yet. For example, change from JD starfire 2 to RTK guidance. The producer is incurring a cost of upgrading his guidance system. The field office will need proof of current system and compare that to proposed upgraded system as it relates to accuracy to make the determination.
- Variable rate technology (VRT) which allows rate of pesticide application to dynamically change for site specific applications.
 - A zone map would be created and a prescription would be developed for the sprayer controller to adjust rates based on zones for particular soil applied (preemerge) herbicides would be an example. Producer is incurring a cost to develop zone map and prescription file that would change rates throughout the field.
- “Smart sprayer” technology which utilizes automatic sensors (based on camera or sound waves) and computer controlled nozzles to turn individual nozzles on and off.
 - This may be an option for SD producers. Individual or paired shutoff nozzles are considered “smart sprayer” technology.