

DRAFT
NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
SOUTH DAKOTA SUPPLEMENTS ITALICIZED

PEST MANAGEMENT

(ac.)
CODE 595

DEFINITION

Managing pests including weeds, insects, diseases and animals.

PURPOSES

This practice may be applied as part of a conservation management system to support one or more of the following purposes:

Enhance quantity and quality of agricultural commodities;

Minimize negative impacts of pest control on soil resources;

Minimize negative impacts of pest control on water resources;

Minimize negative impacts of pest control on air resources;

Minimize negative impacts of pest control on plant resources;

Minimize negative impacts of pest control on animal resources.

CONDITIONS WHERE PRACTICE APPLIES

Wherever pest management is needed.

CRITERIA

General Criteria Applicable to All Purposes

A pest management component of a conservation plan will be developed.

Methods of pest management must comply with Federal, State, and local regulations.

Integrated Pest Management (IPM) programs that strive to balance economics, efficacy, and

environmental risks will be utilized where available. (IPM is an approach to pest control that combines biological, cultural, and other alternatives to chemical controls with the judicious use of pesticides. The objective of IPM is to maintain pest levels below economically damaging levels while minimizing harmful effects of pest control on human health and environmental resources.)

An appropriate set of *alternatives should* be implemented to address the environmental risks of pest management activities in order to adequately treat identified resource concerns. *Alternative techniques include practices like filter strips and crop rotation, and management techniques like application timing and method.*

Cultural and mechanical methods of pest management must *be consistent* with the rest of the conservation plan.

This practice has the potential to affect National Registered listed or eligible (significant) cultural resources. Follow Natural Resources Conservation Service (NRCS) state policy for considering cultural resources during planning, application and maintenance.

When developing alternatives and applying chemical controls of pest management, the following *statements* will apply:

Both label instructions and Extension recommendations will be followed when developing chemical control alternatives. Pay special attention to environmental hazards and site-specific application criteria.

Compliance with federal, state, and local laws is required (e.g., Food Quality Protection Act (FQPA), Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), Worker Protection Standard (WPS), and

Conservation practice standards are reviewed periodically and updated if needed. The current version of this standard is posted on our website at www.sd.nrcs.usda.gov or may be obtained at your local Natural Resources Conservation Service.

Interim Endangered Species Protection Program (H7506C)).

Additional Criteria to Protect Quantity and Quality of Agricultural Commodities

IPM will be used where *commodity-specific IPM programs become* available. If IPM programs are not available, the level of pest control must be the minimum necessary to meet the producer's objectives for commodity quantity and quality.

Additional Criteria to Protect Soil Resources

In conjunction with other conservation practices, the number, sequence and timing of tillage operations shall be managed to maintain soil quality and maintain soil loss below or equal to the soil loss tolerance (T) or any other planned soil loss objective.

Label restrictions shall be followed for pesticides that can carry over in the soil and harm subsequent crops.

Additional Criteria to Protect Water Resources

Pesticide environmental risks, including the impacts of pesticides in ground and surface water on non-target plants, animals and humans, must be evaluated for all identified water resource concerns. *Planners will identify fields or areas of fields that can potentially contribute contaminants to surface or groundwater resources. In South Dakota, an environmental risk evaluation will be made for each field or area with an identified surface or groundwater resource.*

Important South Dakota groundwater resources are identified by reviewing the "Sensitive Areas to Leaching" map, which is filed in Section 1 of the South Dakota Technical Guide (SDTG). Site specific planning resources are local United States Geological Survey/South Dakota Geological Survey water resource reports or additional compiled aquifer information, which is filed in Section 1 of the SDTG.

For surface water protection, fields containing, or bordering a lake, river, stream, or a conveyance to these waters should be considered highly vulnerable to potential surface water contamination. A conveyance may be defined as a drainage ditch, tile inlet, intermittent stream, waterway, or unvegetated channel.

When an important groundwater resource is identified in a field or a field is considered highly vulnerable to potential surface water

contamination, the field will be evaluated with the NRCS Soil/Pesticide Interaction Screening Procedure (SPISP), Windows Pesticide Screening Tool (WIN-PST) or other tools that utilize the databases and matrixes of these models.

When a chosen alternative has significant potential to negatively impact important water resources, for example: *SPISP calculates a "High" soil/pesticide interaction over a known aquifer*, an appropriate set of *alternative practices should* be put in place to address *the potential risks* to humans and non-target aquatic and terrestrial plants and wildlife.

Alternative practices for limiting groundwater contamination by a pesticide are practices that reduce or eliminate exposure or infiltration of the product. Examples of these practices include reduced application rates, foliar applications, or the use of alternative pesticides.

Alternative practices for limiting surface water contamination by a pesticide are practices that reduce or eliminate runoff and erosion. Examples of these practices include residue management, crop rotation, water management, filter and buffer strips.

The transfer, loading, unloading, and mixing of chemicals will not occur in the application field within a minimum of 100 feet from a well or surface water body. The above activities should be performed down gradient of wells. Consider using operational area containment when transferring, loading, unloading, or mixing pesticides in fields with, or bordering a lake, river, stream, or conveyance to those waters. State law concerning operational area containment will be followed.

The number, sequence, and timing of tillage operations shall be managed in conjunction with other sediment control tactics and practices, in order to minimize sediment losses to nearby surface water bodies.

Additional Criteria to Protect Air Resources

Follow pesticide label instructions for minimizing volatilization and drift that may impact non-target plants, animals and humans.

Additional Criteria to Protect Plant Resources

Prevent misdirected pest management control measures that negatively impact plants (e.g., removing pesticide residues from sprayers before moving to next crop and properly adjusting cultivator teeth and flame burners).

Follow pesticide label directions specific to the appropriate climatic conditions, crop stage, soil moisture, pH, and organic matter in order to protect plant health.

Additional Criteria to Protect Animal Resources

Follow pesticide label instructions for minimizing negative impacts to both target and non-target animals.

CONSIDERATIONS

When IPM programs are not available, basic IPM principles should be strongly encouraged. *Field scouting, pest identification, evaluating economic thresholds, and choosing appropriate control measures are basic to IPM. Control measures may include using mechanical, biological, cultural, and chemical control methods. An effective pest management program will usually include more than one of the previous methods. Consider the impacts of mechanical, biological, and cultural controls before relying on chemical control. Avoid routine, preventative pest control measures and utilize spot treatments whenever practical.*

Adequate plant nutrients and soil moisture, including favorable pH and soil conditions, should be provided to reduce plant stress, improve plant vigor and increase the plant's overall ability to tolerate pests.

PLANS AND SPECIFICATIONS

Specifications for establishment and maintenance of this practice shall be prepared for each field or treatment unit according to the Criteria, Considerations, and Operation and Maintenance described in this standard.

Specification shall be recorded using approved specification sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

OPERATION AND MAINTENANCE

The pest management component of a conservation plan will include the following operation and maintenance items:

A safety plan complete with telephone numbers and addresses for emergency treatment centers for personnel exposed to chemicals. For human exposure questions, the telephone number for the nearest poison control center should be provided.

In South Dakota, the poison control number is:

1-800-764-7661

The telephone number for the national hotline in Corvallis, Oregon, may also be given:

1-800-424-7378

For advice and assistance with emergency spills that involve agrichemicals, the local emergency telephone number should be provided.

In South Dakota, emergency spills can be reported to the South Dakota Department of Agriculture (SDDA):

1-800-228-5254

the Department of Environment and Natural Resources during business hours:

1-605-773-3151

or the Division of Emergency Management after hours:

1-605-773-3231

The national CHEMTREC telephone number is:

1-800-424-9300

Posting of signs according to label directions and/or federal, state, and local laws around fields that have been treated. Follow re-entry times.

Container Disposal – Plastic pesticide containers and steel drums may be recycled using the SDDA Pesticide Container Recycling Program. The program is held every year during the months of July and August at selected sites. The City of Vermillion has a collection program open to pesticide container collection the year-round. Call the SDDA at 1-800-228-5254 for more information.

Unusable Pesticide Collection – Pesticides that have been canceled, that are no longer in usable condition, or that are unidentifiable may be registered with the SDDA for free disposal. Call the SDDA at 1-800-228-5354 for more information.

If operational area containment is required, the certified applicator must conduct the operational activities through utilization of a Pesticide Handling and Discharge Plan. Call the SDDA at 1-800-228-5354 for more information.

Pesticide users must read and follow label directions, maintain appropriate Material Safety

Data Sheets, and become certified to apply restricted use pesticides.

Calibrate application equipment according to Extension Service recommendations before each seasonal use and with each major chemical change.

The requirement that worn nozzle tips, cracked hoses, and faulty gauges must be replaced.

The requirement that the producer will maintain records of pest management for at least two years.

Pesticide application records will be in accordance with USDA Agricultural Marketing Service's Pesticide Record Keeping Program and state specific requirements.