

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

PESTICIDE RISK MITIGATION

(Ac.)

CODE 596

DEFINITION

Mitigating the risk of offsite pesticide impacts.

PURPOSE

- Mitigating the risk of dissolved pesticide runoff.
- Mitigating the risk of suspended pesticide runoff.
- Mitigating the risk of dissolved pesticides in field leachate.
- Mitigating the risk of pesticide volatilization losses from the targeted area.
- Mitigating the risk of pesticide drift losses from the targeted area.

CONDITIONS WHERE PRACTICE APPLIES

On all land uses where pesticides are applied and where other conservation practices do not adequately address the offsite risks of the planned pesticides.

CRITERIA

Criteria Applicable to Reducing Dissolved and Suspended Pesticide Runoff and Reducing Dissolved Pesticides in Field Leachate

The USDA-NRCS' current version of the WIN-PST program will be used to assess the potential risk of pesticide runoff and leaching for the planned pesticides to be used on the planning area. Use Agronomy Technical Note XXX, Pesticide Mitigation Practices and Techniques, (Table2) to evaluate the adequacy of the other planned conservation practices to determine the need for this practice. If the

purposes are adequately addressed with other planned conservation practices then the planning of this practice is not needed.

Risk Reduction via Adoption of IPM techniques

Use Agronomy Technical Note XXX, Pesticide Mitigation Practices and Techniques, (Table 1), along with University IPM publications, where available, shall be used in selecting appropriate IPM techniques to address pesticide losses. The minimum level of mitigation that must be implemented to meet minimum criteria is based on the WIN-PST results and the Table below:

WIN-PST Identified Hazard Rating	Minimum Mitigation Score Level Needed
Intermediate	3
High	6
Extra High	9

Criteria Applicable to Reducing Pesticide Volatilization

Typically pesticides with vapor pressures greater than 10^{-4} mm Hg can readily volatilize and move away from the application site. To document the reduction in volatilization loss potential, a pesticide with a vapor pressure of less than 10^{-6} mm Hg must replace a pesticide with a vapor pressure of 10^{-4} mm Hg or greater ^{1,2,3}. This criterion is only applicable to pesticides identified by Federal, State or other local authorities as posing risk from volatilization losses.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service [State Office](#), or visit the [electronic Field Office Technical Guide](#).

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Criteria Applicable to Reducing Pesticide Drift

The planner and client, with the aid of a certified professional if necessary, must identify which pesticides are at risk of drift losses. Evidence of drift can be uneven application patterns, damaged vegetation at the periphery of fields, damaged vegetation in neighboring fields, complaints from neighbors or observed drifting of pesticide during application, among other things. Use Agronomy Technical Note XXX, Pesticide Mitigation Practices and Techniques, (Table 1), along with University IPM publications, where available shall be used in selecting appropriate IPM techniques to address pesticide drift losses. The minimum level of mitigation to meet the criteria is a score of **3** from Use Agronomy Technical Note XXX, Pesticide Mitigation Practices and Techniques, (Table 1).

CONSIDERATIONS

Encourage the client to work with a certified professional or Land-Grant University extension agents to select techniques that would aid the producer in reducing the usage (less pesticide and/or other suppression techniques) of pesticides to manage pests.

Encourage the client to work with Land-Grant University extension agents, other certified professionals, and publications to aid the producer in selecting alternative pesticides and suppression techniques with lower potential to impact natural resources.

Consider implementing this standard in combination with other NRCS Practices identified in Use Agronomy Technical Note XXX, Pesticide Mitigation Practices and Techniques, (Table 2) to more comprehensively protect natural resources from pesticide impacts.

Encourage the client to develop a high level IPM system to use less or avoid the use of pesticides.

PLANS AND SPECIFICATIONS

Plans and specifications shall be prepared for each field site where WIN-PST has a hazard rating of intermediate, high, or extra high; has a volatilization risk, or a concern with drift.

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Depending on the purpose of the standard implementation, the plans shall include as appropriate:

- a) The WIN-PST run that evaluates the client's planned pesticide application. The hazard associated with each pesticide application shall be clearly summarized.
- b) The planned pesticides to mitigate the risk of volatilization.
- c) The planned pesticides to mitigate the risk of drift.
- d) The planned IPM technique(s) that will be implemented and which pesticide loss pathway(s) they address.
- e) Records documenting volatility reduction.
- f) A summary identifying that an overall risk reduction has been achieved for the pesticides and IPM mitigation techniques selected by the client clearly showing that minimum criteria have been met.

OPERATION AND MAINTENANCE

All pesticide application records indicating what pesticides were applied, at what rate, where they were applied and when will be maintained in order to support the choices selected in the WIN-PST runs or to provide evidence or use reduction.

REFERENCES

1. Kerle, E. A., Jenkins, J. J. & Vogue, P. A., (2007) EM 8561-E, Understanding pesticide persistence and mobility from groundwater and surface water protection. Oregon State University Extension Service
2. Pesticide Action Network of North America. 2008. www.pesticideinfo.org
3. M. A. Ross and C. A. Lembi. 1999. Applied Weed Science. 2nd Edition. Burgess Publishing Company.