

# AGRICULTURAL PESTICIDE USE

WHAT YOU CAN DO TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT

Tribal Response Program

*Best Management  
Practices (BMPs)  
for...  
...Groundwater  
Protection (Pesticide  
Application, Soil and  
Water Conservation)*

## GROUNDWATER PROTECTION

### APPLICATION

1. Use pesticides with low mobility and persistence.
2. Use pesticide formulations that reduce drift losses.
3. Adjust spray equipment to give the range in droplet size for optimum coverage of the target.
4. Release pesticide spray as close to the target as possible.
5. Never apply pesticides during weather conditions that may cause significant drift of small droplets away from the spray target.
6. Calibrate application equipment regularly to ensure that proper amount of the pesticide is applied.
7. Add petroleum or modified vegetable oil adjuvants to herbicide mixes, when recommended.
8. Utilize banded applications of pesticides when possible.
9. Utilize methods of pesticide application that target individual pests or improve uniformity of application if possible.
10. Use pesticides that can be incorporated into the soil, if possible.
11. Avoid pesticide applications prior to intense rainfall events.
12. Check mix-water for pH that may reduce pesticide efficacy.



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## SOIL AND WATER CONSERVATION

1. Utilize animal wastes, if available, as a source of organic matter and as a portion of nutrient inputs.
2. Rotate low residue crops with green manure or with high residue crops that return larger portions of organic material to the soil.
3. Use reduced tillage methods wherever possible.
4. Use tillage to disrupt macropores if preferential movement of pesticides is a source of groundwater problems.
5. Use soil conservation practices that reduce the force of the wind.
6. Use soil conservation practices that reduce the force of runoff water.



MANURE APPLICATION



NO TILL FARMING

BUFFER STRIP



GREEN MANURE



## SOURCES

Seelig, Bruce. July 1996. "Improved Pesticide Application BMPs for Groundwater Protection from Pesticides". North Dakota State University. <http://www.ag.ndsu.edu/pubs/h2oqual/watgrnd/ae1113w.htm>

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