Irrigation Management Plans with the Use of Atrazine

Atrazine use in Wisconsin is regulated by the federal label and the Wisconsin Statue ATCP 30, Subchapter VIII. An important tool (and an increasing feature) for growers for a successful crop is the use of an irrigation system. Using atrazine on an irrigated crop is restricted.

ATCP 30.31 (3) (b)

> *No person may apply irrigation water to any site to which atrazine product has been applied for a 2-year period following the application of atrazine product, unless the application of irrigation water is conducted in accordance with an irrigation management program that does not cause moisture capacity in the root zone on the soil being irrigated to be exceeded.*

A successful irrigation management plan helps ensure the irrigation system is operated to match the crop and its water needs while, at the same time, understanding the soil's composition and climate conditions present for the protection of groundwater and surface water quality.

An irrigation management plan ensures that water is used efficiently to meet the crop's water needs. This helps protect groundwater and surface water quality while preventing water loss due to surface flow, leaching, or drift. It is also important to ensure that application of irrigation water is conducted in accordance with an irrigation management program so that the moisture capacity in the root zone of the soil being irrigated is not exceeded.

Moisture Capacity

The ability to retain water (maximum content) in soil (pore space) that is available for plant uptake, but without leaching.

Root Zone

The area on a plant (usually subsurface) where water and nutrients are pulled from the soil and transferred to the plant for survival and growth.

Soil

The upper layer of the Earth, usually to a depth of 5 feet.

Moisture Capacity Exceedance

The percentage where water leaches through the root zone, likely transporting fertilizers and chemicals to the subsurface (evapotranspiration). Refer to Irrigation Scheduling & Evapotranspiration Data for more information.

Irrigation Management Plan

This plan does not need to be sophisticated, nor required to be in writing. DATCP highly encourages documenting the decision-making process and weather/precipitation events. An Irrigation Management Plan will need to include a plan identifying:

A. How the soil type is determined:
   a. *Refer to USDA NRCS Web Soil Survey (WSS)*
   b. Provides soil data and information produced by the National Cooperative Soil Survey

B. How the moisture capacity is measured:
   a. 1-Hand determining or 2-tensiometers (soil moisture sensors)
   b. *Refer to UW Extension – Methods to Monitor Soil Moisture*
   c. *Refer to Division of Extension – Crops and Soils webpage for additional resources*

C. How irrigation is managed:
   a. The plan should record basic information such as temperatures, when rainfall occurs, how much rain, when the irrigation was implemented, and how much.
   b. *Refer to Irrigation Management in Wisconsin*

When implemented correctly, a proper Irrigation Management Plan will provide:

- Water saving practices
- Energy saving opportunities
- Limit pesticide/atrazine runoff from intended targets; and
- Continue steps to proper land stewardship

For More Information

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