

WeedSOFT

A Decision Support System for Weed Management

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WeedSOFT was developed to give the agricultural professional a decision support tool for weed management problems. Developed over several years of cooperative research and development between University of Nebraska Weed Science faculty and staff, extension educators, and local consultants, WeedSOFT provides fast, accurate, and dependable resolutions to specific weed management problems while taking into account various ecological concerns with respect to groundwater contamination and herbicide carryover.

In the early 1990s, the University of Nebraska introduced NebHERB. NebHERB made herbicide treatment recommendations based on limited input from the user. This was the start of WeedSOFT. Today, WeedSOFT has evolved into 4 modules, including **Advisor**, **EnviroFX**, **WeedView**, and **MapView**, addressing issues ranging from integrated weed management to groundwater contamination risk assessment. Throughout its development, WeedSOFT has kept the same focus, to provide agricultural professionals with a tool to aid in the decision making process for weed management.

ADVISOR

A Diagnostic & Analytic Decision Support System

The ADVISOR module takes the guesswork out of weed management by providing real numbers specific to a given problem. Once data is provided by the user, including crop, soil moisture, climate, and number and type of weeds, Advisor analyzes those contributing conditions and recommends effective treatments. Because Advisor incorporates preemergence, postemergence, and preemergence followed by postemergence combinations, WeedSOFT can be used as a strategic planning tool to make pro-active as well as reactive measures.

In addition, for each recommendation, ADVISOR will calculate the cost to treat the problem versus the expected dollar loss if the crop goes untreated. It will provide a complete damage estimate based on research conducted by the University of Nebraska, including reduced rates and resistant weeds that will help the user assess treatment cost and effectiveness, resulting in selection of the best treatment for a given problem. These recommendations strictly adhere to label guidelines. Advisor also allows the user to take into account technology fees associated with specific genetically modified crops, allowing the user to make complete economic comparisons.

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WeedVIEW

Picture Database For Weed Identification

This module allows for a visual display of various weeds. WeedVIEW offers detailed photographs of more than 35 species of weeds, so you can confirm the specific identification of your weed problem.

For most species, Several images are available. This allows the user to identify a specific species at various growth stages. Line art drawings are also included.

EnviroFX

Alerts You to Potential Environmental Issues

With the EnviroFX application, the user can determine some of the potential environmental impacts of specific herbicide treatments. By selecting product names and providing information about pertaining to soil and water-table depth, one can obtain output including: relative herbicide mobility, relative soil vulnerability to leaching, as well as combined herbicide/soil ranking and the potential for a herbicide to reach groundwater.

MapVIEW

Helps evaluate risk of groundwater contamination

MapVIEW is the newest module in the WeedSOFT lineup. MapVIEW provides a first step in the process of evaluating risk of groundwater contamination with herbicides. MapVIEW utilizes a visual color image of counties within Nebraska to display vulnerability of certain sites to groundwater contamination. The maps are color coded to enable the user to determine vulnerability of a site. This module allows users to make well-informed management decisions based on soil properties and depth of groundwater.

Each year WeedSOFT is updated. These updates include new treatments, updated label changes, removal of old treatments and any new additions to the program. The program costs \$185 for the first initial purchase and \$35 for updates each year. This allows us to keep our users informed with the latest, most accurate up-to-date information possible.

