Constructing A Chemical Rinse Pad For Golf Courses

It seems like there should be simple, everyday solutions to questions about the proper ways to store, mix, load and apply turf and ornamental pesticides. However, state and federal regulations are rapidly becoming more complex and restrictive. Newly proposed FIFRA regulations would restrict the areas where mixing, loading and rinsing of pesticides can take place.

Faced with this prospect, many superintendents and other chemical users are asking what they can do to be prepared for the new laws and regulations. Of course, no one has a crystal ball, but some areas of turf chemical use seem more likely to change than others.

You may know that it is not a good practice to mix and load pesticides repeatedly in the same area. This practice can cause pesticides to build up in concentrations. Yet, it is a mistake commonly made, since that's where the water for mixing and rinsing is located.

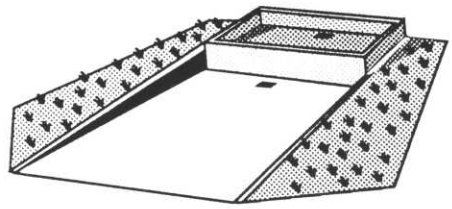
What can superintendents do? You may want to construct a concrete rinse pad to prevent inadvertently spilled turf chemicals from leaching into groundwater or contaminating streams or ponds.

Simple, Efficient Design

There are many ways to design and build a cememt mixing/loading pad. One simple design was developed by Ronald T. Noyes, extension ag engineer at Oklahoma State University. His standardized, modular design uses input from numerous engineers, researchers and regulators. A key feature is that it provides size flexibility, allowing superintendents to scale the construction costs for a 20- x 25-foot rinse pad, including professional labor, to be about $900 to $1,300, excluding equipment such as a sump pump and holding tanks.

The basic design for the Noyes system guides the construction of a watertight, reinforced concrete pad large enough to hold the largest application vehicle you use, plus containment areas for rinse water storage tanks and mixing and loading equipment.

The pad is sloped to the center and contains floor drains to a sump for easy discharge. Steel-grated, shallow concrete collection sumps serve as sediment settling basins and are designed to collect spills and rinse water for transfer to above-ground rinsate tanks. A pump can also be used to move solutions directly from the drain valve on your sprayer into rinsate storage tanks.



Capturing Waste Water

To use the rinse pad, the superintendent drives the sprayer onto the concrete pad and makes sure that the sump drain valve (if installed) is locked in the closed position. Any leftover field-strength chemical rinse water from the sprayer drain valve is pumped into a marked rinsate tank. Any spills can be hosed into the sump for later recovery.

Rinse water, or rinsate, can be stored temporarily in various types of holding tanks, including portable tanks. More than one rinse water tank will be needed. By collecting rinse water into different tanks, it can be used as makeup water the next time the product or a compatible chemical is sprayed. Caution should be used to follow label instructions and mix only label-compatible turf chemicals.

Selection of a suitable site for the rinse pad is also important. It should not be in a location where the water source can be contaminated by an accidental spill. If possible, pick a site that has not already been used for chemical storage, mixing/loading or equipment rinsing. If that is not possible, take precautions to remove contaminated soil or otherwise decontaminate the site before constructing a rinse pad.

If you would like more information about Noyes' rinse pad, you may write him at the following address:

Cooperative Extension Service
224 Ag Hall
Oklahoma State University
Stillwater, OK 74078

This article was adapted from a fact sheet developed by ACRE, the Alliance for a Clean Rural Environment. ACRE is a non-profit organization that encourages environmental stewardship and water quality protection.

1991 MGCSA Monthly Meeting Sites

Date	Location	Sponsor
June 3	Pebble Creek (lunch)	MTI - Neary Mfg.
July 8	Izaty's (lunch)	Lesco - Deep Tine Aerifying, Keith Faber, Five Star Deep Aerifying Co.
Aug. 19	New Richmond, Wis. MGCSA Championship (dinner)	Polfus Implement
Sept. 16	Golden Valley/Oak Ridge Research Tournament (Dinner at Oak Ridge)	
Oct. 7	Hastings (lunch)	R&W Golf Cars
November (first wk.)	Weather permitting, golf at Mankato	
November 20-21-22	Annual Conference Northland Inn	