

Inexpensive Wash Pad and Mix & Load Solutions

Whether you're running a golf-course or just doing yard-work, cleaning and fueling up equipment are necessary tasks. Below we name some environmental safety hints for washing equipment and mixing chemical products that are useful to lawn and turf care professionals.

Wash Pads

Well maintained lawn and turf care equipment should be washed regularly to ensure a long and productive life. However, it is quite possible that something as seemingly innocuous as equipment maintenance can be causing lasting environmental harm. Let's take a moment and consider exactly what happens when you wash your equipment on your driveway or wash pad.

What is in Rinsate and Where Does it Go?

First, consider exactly what you're washing off of your equipment: grass clippings, dirt, oil residue, fertilizer, and in some cases, even pesticides. Now consider where this water run-off is headed; it can flow into sewers, creeks, rivers, or even right back into the beautiful environment you've just landscaped. Not only can this be disastrous for your local environment, in many cases it is illegal. If you are washing a container that housed pesticides, like a spray tank, its runoff is legally considered pesticide waste and is subject to strict regulation. No matter what you're washing, there are ways to significantly reduce environmental harm.



This wash pad was built for under \$200, which included pouring the concrete, screen, and labor. Cinder blocks were reused from a past project and there is a double screen placed in the lower left corner. Water passes through the screen and out into tall vegetation, which acts as a filter.

For a small operation, like your Saturday morning car wash, the solution is often as simple as swapping out your traditional car-wash soap for one of the many biodegradable options on the market. Before you begin washing, observe where the run-off water will flow. Even biodegradable soap must avoid rivers, ponds and streams and storm drains. It requires soil to break down and should be directed into grass or gravel a safe distance from a stream or gutter.

Larger operations require significantly more care. Although exact regulations differ according to your location and circumstance, the chemicals and pesticides you'll be washing off your equipment should absolutely never go near any water source and should avoid even the ground. The best solution is a completely self contained system that captures run off and recycles the water. This both reduces water consumption and eliminates the concern about contamination. Unfortunately these set ups are often prohibitively expensive. Fortunately, however, there are effective, inexpensive options available.

Biofiltration

If the equipment you are washing has not had any direct contact with pesticides or other dangerous chemicals, you can build a wash pad adjacent to rain garden. Build a concrete slab slightly slanted toward a depressed area of land far removed from any water source. Plant local, water-hungry plants in the depression; these plants will slow the water's rate of absorption, allowing for a breakdown of biodegradable detergents. Finally, consider using an air compressor or backpack blower to blow off mud and grass clippings. This not only reduces water consumption, but also allows for these materials to be composted.

Building a Wash Pad

When washing equipment that has had direct contact with pesticides it is absolutely imperative that you create a self-contained system. For a permanent solution, create a concrete wash area that drains into a holding tank. Alternatively, there are a variety of commercially available inflatable wash-pads that will capture all run-off and drain to a container. Dilute the run-off in this tank or container and use it for future spray-tanks, or have it safely removed according to local, state and federal regulations.

Waste water management is all of our responsibility. By being careful with where our water flows, and by being creative with the ways we capture and re-use our waste. We can both save money and protect the environment.

For more information, visit epa.gov and look for a National Pollutant Discharge Elimination System (NPDES)



In the wash pad above, water is screened and drained through a pipe to a container (not pictured) to be collected for irrigation.

Chemical Mix and Load Pads

Ground water contamination can result even from small spills in the mixing and loading area. Small quantities spilled regularly in the same place can go unnoticed, but pesticides can build up in the soil and eventually reach ground water. Mixing and loading on an impermeable surface makes it possible to contain and reuse most spilled pesticides.



If a spill were to occur on the chemical mix pad pictured (top), it would drain to the tap pictured (bottom) that can be turned on or off so that spilled product can be captured and reused.

If you do not have or are not able to construct a mixing and loading pad, here are a few suggestions for better managing your site:

- Avoid mixing and loading pesticides near any water sources
- Avoid mixing and loading on gravel driveways or other surfaces that allow spills to sink through the soil. Clay surfaces are better than sand surfaces.
- Use rinse water for mixing subsequent loads of the same pesticide. Spray the last rinse load on the field.
- Install a back-siphon prevention device on the well or hydrants. Never put the hose in sprayer tank, always keep the hose well above the water line. Provide an air gap between the hose and the top of the sprayer tank.

For more information on chemical mix and load stations, please refer to *A Guide to Environmental Stewardship on the Golf Course, 2nd. Ed.*