



NICE PACKAGE

Improvements in packaging have made the handling of turf chemicals safer and easier. By Jason Stahl

Glug-glug-glug. Most golf course superintendents are familiar with that sound... and no, it's not from the quaffing of an after-hours frosty beverage. Rather, it's the noise coming from a bottle of the liquid turf product of your choice as you pour it out. But it's not necessarily a good noise. After all, glug-glug-glug could result in splashback, and that's not good for anybody.

Advances in product design, not to mention labeling, have minimized "the glug" as well as provided many other benefits that make the use of these products safer, easier and more efficient.

Syngenta introduced a slant-neck 1-gallon bottle first in 2009 with Tenacity with the goal of making pouring easier, less fatiguing and safer.

"A lot of research went into that and figuring out how superintendents were using it," says Jason Monsees, global packaging engineer for Syngenta.

According to Monsees, the big, angled neck is more ergonomic and doesn't require the bottle to be turned over as far to be emptied.

With the 2-1/2-gallon bottle, a logo was added near the handle showing the proper way to hold it so as to eliminate plugging and splashback while pouring out the product. This is key, since Monsees says the research team found that turning the bottle upside down to get the product out was common among users.

Aside from the user benefits, coming out with such a product as this new bottle provides an ancillary benefit to Syngenta itself.

"It differentiates us in the marketplace," says Monsees. "No one else out there has a slant-neck bottle out there, so when a customer looks at it, they know it's a Syngenta product."

Package size is also an important advancement. Syngenta talks with customers to find out what package size is most appropriate for the way they use the product.

"In the golf market, smaller pack-

ages are more convenient at times, depending on the application," says Margaret Bell, senior marketing communications manager for Syngenta. "For example, there could be a spot treatment where you don't need a larger package size."

Becky Fong, packaging innovations manager for Valent USA Corporation, cites this "right sizing" of packaging – providing an appropriate unit dose to eliminate the need to measure, reseal and store opened packages – as a new trend.

"For example, water-soluble pouches that can be used one at a time as needed per application," says Fong. "Alternate palletization, meanwhile, helps to increase the stability and efficiency of pallet loads."

"Valent is constantly looking for new ways to make packaging easier and safer to use," says Fong. "That might mean adjusting the angle of a handle for greater ease of dispensing, improving label quality to ensure the label will stay with the product before, during and after use or adding a reseal mechanism to help avoid spills and promote easier and safer storage."

A color-coded cap system serves a purpose for Syngenta, with green for fungicide, red for growth inhibitor

and blue for herbicide.

"This helps the end user pull the right product off the shelf and not put an herbicide down when you want to put down a fungicide," says Monsees. "It's a small thing, but a big thing."

Proper storage is just as important as proper use. The biggest problem superintendent Justin Peloquin says exists in his region is heat.

"A storage container that houses the chemicals its basically just a metal shell sitting out there cooking in the heat," says Peloquin, who takes care of Tahquitz Creek Golf Resort in Palm Springs, CA. "If you don't have some type of ventilation inside of your bins, it gets too hot inside and you start having bottles explode. Even though we have ventilation, we're always going through containers and checking to make sure they aren't swelling or leaking."

Once a year, Peloquin conducts chemical training that covers handling, mixing, servicing equipment and first aid. He and his crew also follow the buddy system when it comes to the handling of these chemicals.

"When we have a guy mixing, we usually have a guy right around there with him to make sure things are getting mixed in the proper order and to

Storage facility

Mike Vogt, consultant with the McMahon Group, says they prefer to design chemical storage buildings with separate storage rooms for liquid and dry chemicals. They specify that they be constructed of concrete block, and that all floors and foundations have a water-stop installed.

"Also, we make a special effort to keep chemical storage buildings separate from the main building, at least 200 feet from other structures and at least 500 feet from the natural flow of drainage water across the site," says Vogt.

It's also a sound practice to install fire protection, and all lighting should be explosion-proof, Vogt adds.

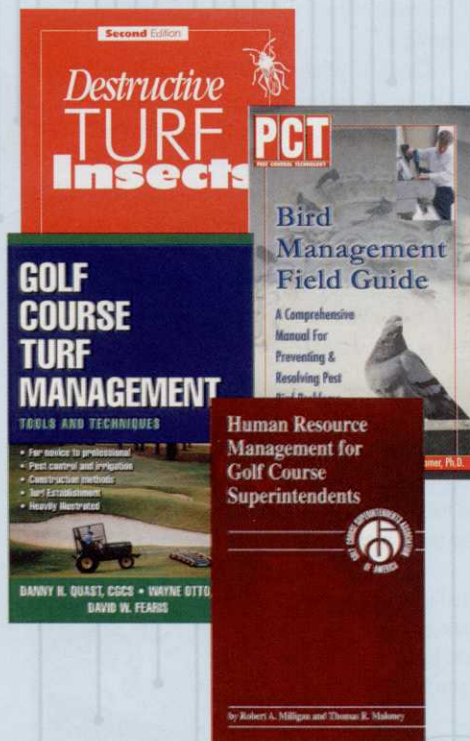


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OPERATIONS PROFILE

make sure there are no issues with the equipment,” says Peloquin. “We make sure safety-wise that everybody is covering one another.”

Tommy Witt, director of golf course operations for Northmoor Country Club in Highland Park, IL, recently upgraded his chemical storage room to avoid any potential problems.

“Several years ago, we constructed heavy duty ‘Home Depot’ type shelves, which provide us with the space to adequately and safely store our complete inventory of chemicals,” Witt says.

Lisa Clements, marketing manager of US Chemical Storage, says leaking is the most common problem when it comes to storing turf chemicals, which can lead to accidental contamination of grounds and groundwater.

“Our solution is a building that’s turn-key and enables golf course superintendents to house materials with spill containment built into the structure,” says Clements. “That way, when they’re storing and handling the materials, if something should spill or drip, it’s contained within the structure.”

The spill containment is an empty area below the floor, which is made of steel grating and is six inches above the bottom of the building. This area below the floor you stand on is sometimes called the “sump” area or “containment sump.”

Fong recommends that products be stored in a cool, dry place in their original containers – and that containers be kept closed when not in use.

“Also, resealable packaging helps eliminate spills and leaks in storage and is a factor that should be a consideration at the point of purchase,” she says. **GCI**

Jason Stahl is a freelance writer based in Cleveland.

Tips for Safe Chemical Storage

Accidents from poor storage techniques of chemicals are 100 percent preventable. So why do they still happen? Many times it’s because workers in areas with many chemicals are tempted to store chemicals alphabetically by common name to make them easy to find – but this is a very dangerous practice.

Here are a few more tips for safe chemical storage:

- Always store minimum quantities, as specified by OSHA. Purchase chemicals in smallest quantities needed.
- Inventory chemicals at least once a year.
- Do not store chemicals on bench tops.
- Keep MSDSs on file and available.
- Keep chemicals in storage except when in use.
- Label all chemical containers – even those with only water.
- Develop procedures to prevent and contain spills.
- Encourage orderly and tidy work practices.
- Provide adequate security to prevent access of hazardous materials by unauthorized personnel. – enviro.blr.com

