Spray Indicator Dyes

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Spray indicator dye products provide good visual cues.

Have you ever wondered exactly where the insecticide or herbicide in your spray tank hits the ground? It's not that the formulation is invisible, just hard to see. Thorough, uniform coverage is necessary for the success of any pesticide or fertilizer application.

Using indicator products

As with most other products that are dumped into a spray tank, spray pattern indicators are added in relation to the volume of water in a ratio specified on the product label. The indicator product changes the color of the contents of the tank, usually to a dark blue or green. In most cases, the color change is temporary, usually for several hours; however, some colors may last up to 48 hours after application.

One feature that many products offer is ease in mixing. Instead of measuring, they use a water-soluble bag with a premeasured amount of colorant in it. All that is required of the applicator is to put the correct volume of water (and active ingredient) into the spray tank and drop in the bag of spray dye indicator.

Premeasured bags also offer several other advantages. First, a premeasured dose provides an accurate and consistent application rate. Use of the bags is a time-saver, since no measuring is required, and because the colorant bag dissolves in water, there is no waste to dispose of. Using the bags also means that there is a reduced possibility of being exposed to the colorant, which means no stains or spills on clothing, skin or the mixing area.

Why use a colorant?

There are many reasons for using a colorant or spray indicator dye. The most

obvious is the opportunity to increase effectiveness by identifying clogged nozzles on a spray boom; if a nozzle is partially or completely clogged, it alters the amount and distribution of the product. In most scenarios, this means a reduction in output. When the spray pattern is distorted, the proper volume may be applied, but in a larger or smaller area than desired. By using a colorant, it's easy to see areas that are left unmarked (but are supposed to be), are partially marked or marked with a lighter color, thus raising a red flag that your sprayer is not up to snuff.

Spray indicator dyes can help provide uniform coverage of fungicides, herbicides and fertilizers, which is necessary for the success of any application.

After defective or worn spray nozzles have been identified, replace them. Once the new ones are in place, perform a simple spray check on the spray rig, backpack or hand-held sprayer using collection devices to measure the output of each nozzle. Without question, the result will be an increase in performance that will create significant cost savings. In addition to the cost savings for product efficiency, retreatments or callbacks will be minimized through more accurate delivery with the first application.

Training advantages

When training new employees to use spray equipment, spray indicator dyes can be helpful tools. The idea is to implement the proverbial trial and error technique, letting the greenhorn employee test-spray some utility turf areas behind your equipment shed or other locations where it wouldn't matter if mistakes were made. During this time, the new applicator can experiment with ground speed, wind, tank pressure and boom/nozzle height, and their effects on the eventual spray pattern.

A spray pattern indicator is also useful on unfamiliar sites where the potential for spray drift is unpredictable. You typically can't determine wind patterns around trees and between houses until you've had several years of experience. Using a spray pattern indicator can help you identify which areas are subject to influence by wind effects. You can note overspray onto tree trunks, car tires and play equipment and make adjustments accordingly. Use a colored, non-pesticide/fertilizer formulation until you are familiar with an area.

Nonverbal communication

Classic speech communication textbooks claim that 7 percent of communication is due to the actual words we use and the rest is due to tone, inflection, pause, body language and other factors. This is true for working with green industry customers as well; spray indicator dyes can be a part of that communication. For example, when taking over a new account, the lawn may have many weeds. Spots of colorant spray here and there in the lawn will help the customer see the extent of the existing weed population and the need for your services. You may wish to use an indicator dye later in the season after your technicians have been working on the lawn for several months to make comparisons of effectiveness.

Possible side effects

Spray indicator dyes are tools, and as such have inherent features to acknowledge. Occasional reports of undesirable staining have been reported with these products over the years. Until familiarity has been fully gained with a given product, use caution near irrigation heads, sidewalks, tree trunks, mailboxes, ornamental fencing/posts and other nontarget items in the landscape. Be sure to take the precaution of testing the product on a nearby object where it won’t be noticed, such as an alleyway.

Overall, however, spray pattern indicators can be quite useful. They help improve product efficiency, communicate effectively with employees and customers, identify the potential for pesticide drift and save time and money.

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