

Quick guide to pre-emergents

Avoid costly mistakes in buying and using preemergent herbicides by following a common sense program for their selection and use.

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The small profit margin realized from preemergent herbicide applications means lawn care operators can't afford to make mistakes when using these products. This, combined with the fact that the cost for the product is incurred at the beginning of the year when checkbooks may be slim, means the decision on which preemergent compound to use definitely affects the operator's bottom line.

But deciding which 'pre' product to apply isn't always easy since weed spectrums, customer expectations, and turf and environmental conditions change from site to site. Lawn care operators should first determine their overall needs in terms of application methods, efficacy and cost-effectiveness when making their herbicide selection. Consider other factors such as re-seeding intervals, formulation choice and water solubility and volatility issues as well.

The product has to complement the operator's particular application set-up,



whether it is liquid or granular, or both. It also needs to cover the weed spectrums they generally encounter, and satisfy their customers' control expectations and personal feelings towards the type of product being used.

Liquid or granular?

Liquid and granular formulations offer different advantages to lawn care operators. Generally, liquids tend to be more economical and promote more precision application. On the other hand, granular products can help turf professionals address homeowner perceptions about environmental issues since much of the public has a more positive view of materials being applied with a spreader than a spray gun.

But lawn care operators need to be careful when applying granular products, or a preemergence herbicide impregnated in fertilizer, with a spinner-type spreader near ornamentals. They should select a product that can be used in both places and can be safely used over a wide variety of ornamentals. This not only eliminates the potential for ornamental injury; it helps make customers happy since the ornamental bed gets the benefit of the application too. Some products, such as pendimethalin, can be used on well over 300 ornamentals with no injury.

Weed spectrum

Although most lawn care operators use preemergent compounds primarily to control crabgrass, products that offer broad-

spectrum effectiveness of other summer annual grasses and broadleaf weeds provide icing on the cake. They also reduce the potential for profit-stealing callbacks. It's very important for operators to compare product labels for the list of weeds controlled to help determine herbicides' weed control spectrums.

However, just because a herbicide has the broadest spectrum doesn't mean it is the right choice. Lawn care operators need to balance spectrum and price to determine the most cost-effective program for the situation. Products that offer seasonal control of some of the most troublesome weeds return additional value since

they reduce the expense and time spent on post emergent applications.

Water solubility and volatility

Two important, but sometimes over-hyped selection criteria for preemergents are water solubility and volatility. Solubility, the measure of the amount of herbicide that can be dissolved in a given volume of water, indicates the product's resistance to leaching out of the weed germination zone. Generally, the lower a herbicide's solubility, the less potential there is for leaching due to rainfall or irrigation.

Volatility refers to a herbicide's tendency to evaporate or be lost to the atmosphere as a gas. Low volatility means a herbicide is less likely to escape as a vapor and more product remains in the soil to control weeds. It also means lower possibility of harm to nearby ornamentals.

Most commercially available preemergent herbicides have very acceptable water solubility and volatility characteristics. In fact, one product being slightly less soluble than another doesn't mean that much, and there is no great difference in volatility between the leading brands. But, since there are differences, lawn care operators should refer to the label and MSDS for the product they are using to determine if there could be a potential problem. Taking precautionary steps to ensure the product not only works but stays in place goes a long way in making sure customers remain satisfied.

Application timing

Application flexibility is another criteria to consider when selecting preemergent programs. Since improper application timing causes the majority of preemergent weed failures, operators need a product with a wide enough application window to accommodate spring weather conditions. This is especially necessary in northern regions where snow needs to melt before preemergent programs can be applied. Most operators who track call-backs will find preemergent failures clustered around the end of the first application round.

There are only so many days suitable for herbicide application in the spring and

lawn care operators can get caught in a real time crunch trying to get to all of their accounts. Selecting products that have broad spectrum activity and that stretch application timing further into the season reduces call-backs, increases customer satisfaction, and makes life a little easier for the lawn care operator.

Reseeding intervals also affect preemergent decisions. Late fall seedings should not

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be sprayed with a spring preemergent program other than a product like Tupersan (by the DuPont Company) until the operator is sure that germination is complete. A general rule of thumb to reduce the potential for injury is to mow a newly seeded or overseeded area at least four times before making a preemergent application.

Managing customer expectations

Customer expectations also affect efficacy considerations. Overall, the accepted minimal commercial standard is 85 percent control of targeted weeds. Some customers who have had problems controlling weeds on their own may be thrilled with that degree of effectiveness. Others, especially those who are used to cleaner turf, may not. Since it is not always easy to determine what the customer wants, operators should function on the premise of 'out of sight, out of mind', and treat with a broad spectrum product for new clients.

Training employees in how to manage their clients expectations enhances customer relations and reduces call backs. Employees need to be up front about the level of control a customer should expect from the application and answer questions re-

garding herbicide activity in a manner that is understandable to their clients. Explaining what kind of results to expect and how long it takes to see activity helps cut down unnecessary call backs since customers can see for themselves that the program is working.

But determining which is the best product for a lawn care operator's total business can be confusion. Conflicting advertising claims can reduce credibility. And, although independent research results provide more objective comparisons, it often seems there are studies to support every claim made by every manufacturer if you look hard enough. To gain the appropriate perspective, lawn care operators should attend university field days and see for themselves how products stack up in side-by-side comparisons. For example, studies at Penn State show that products including Barricade (by Novartis), Dimension (by Rohm and Haas Company), Team (by Dow AgroSciences) and pendimethalin all provide good preemergent activity. By attending local field days, where weather, soil and turf conditions are comparable to those that lawn care companies encounter when servicing their accounts, lawn care operators can make final decisions based on how a particular product fits their specific conditions and needs.

In general, preemergent herbicide selection involves the art of matching circumstances to solutions. Lawn care operators must take into consideration several selection criteria when making their program choices.

The bottom line: select the most cost-effective program for your operation and communicate with customers to set appropriate expectations for the desired result. And, as with any pesticide, always read and follow label directions. □

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