

Ousting Crabgrass – After It Germinates

Postemergent herbicides are viable options for several reasons, including integrated pest management

By Fred Velverton

Crabgrasses are some of the most problematic weeds for superintendents. Several species can be found in turfgrasses — large crabgrass, smooth crabgrass and Southern crabgrass are the most common species, although there are a few others. As a general rule, crabgrass tends to be more of a problem in temperate climates and less of a problem in tropical regions. In the United States, crabgrass is a major problem in both cool-season and warm-season turfgrasses on golf courses.

The three species mentioned above are summer annuals. That means they live less than one year, germinate as temperatures start to warm, die with frost and must come back from seed every year.

Because they must grow back from seed, the opportunity to use pre-emergent herbicides exists. As a result, these products are commonly used by turfgrass managers. Pre-emergent herbicides for crabgrass control offer advantages and disadvantages. The most obvious advantage is that timely applications of pre-emergent herbicides prevent crabgrass from becoming a problem. The primary disadvantage is that these products are “blanket-applied” and, as a result, areas not infested with crabgrass are treated as well.

Postemergent herbicides are viable options for crabgrass control for several reasons. First, postemergent control allows turfgrass managers to treat only those areas infested with crabgrass. This treat-as-needed approach is a good example of an integrated pest management (IPM) approach to weed control.

Second, postemergent herbicides are used because pre-emergent herbicides often break down, particularly after extended periods of high rainfall during the summer. In this case, postemergent

herbicides are employed to remove crabgrass that escaped the pre-emergent herbicide application.

Three of the most commonly used herbicides for postemergent control of crabgrass are MSMA or DSMA, Acclaim Extra and Drive 75 DF.

MSMA and DSMA are arsenical herbicides that have been available for many years. Because the patent is expired, they are sold by many companies under a variety of trade names. These arsenical herbicides were the mainstay for crabgrass control in turfgrass until the arrival of pre-emergent herbicides several years ago.

There are several advantages of the arsenical herbicides for crabgrass control. The arsenicals are inexpensive. In addition, they can be effective for control of crabgrass in turf if plants are small at the time of application. Contrary to what many believe, the toxicity of the arsenicals is quite low. Just as with other products discussed below, MSMA and DSMA carry a “caution” on the label, which is the least hazardous category found on product labels (“warning” being next and “danger” representing the most hazardous).

The disadvantage of the arsenicals is that they can't be used on many varieties of turfgrass species. Most of the cool-season turf species and zoysiagrass can be discolored beyond acceptable limits. Centipede grass is readily killed by application of the arsenicals. For all practical purposes, the arsenicals are viable options only on common and hybrid bermudagrasses. But even on bermudas, discoloration will occur. In addition, a repeat application is usually needed in five to seven days to ensure good control.

Acclaim Extra is a relatively new prod-



uct that was originally sold as Acclaim. The current formulation, known as Acclaim Extra, was introduced a few years ago.

Acclaim Extra offers several advantages for postemergent control of weeds in turf. If applied to small crabgrass, it's highly effective in killing crabgrass. As with all postemergent herbicides, Acclaim Extra will provide better control when crabgrass is small and actively growing. Poor results can be obtained when applied to crabgrass and other sensitive weeds under growth stresses, such as drought or heat.

Another advantage of Acclaim Extra is it controls several other grassy weeds found in turf. Goosegrass, barnyardgrass, foxtail, sandbur and others are controlled by it. Acclaim Extra can be applied to Kentucky bluegrass, perennial ryegrass, tall and fine fescues, annual bluegrass and creeping bentgrass (though not putting greens). Zoysiagrass is the only warm-season turf species that is tolerant to Acclaim Extra.

While Acclaim Extra can be applied to cool-season turfgrass species plus zoysiagrass, all other warm-season species are sensitive. Although Acclaim Extra is effective on small crabgrass, it's much less effective on crabgrass once it has tillered. To obtain effective control on tillered crabgrass, rates of Acclaim Extra must be substantially increased (sometimes doubled or tripled).

Drive 75DF is the newest herbicide for postemergent crabgrass control. It offers several advantages as a postemergent herbicide. Drive is highly effective for the control of crabgrass in turfgrass species. As with previously mentioned herbicides, Drive is more effective when applied to crabgrass that is small and actively growing. Drive will also control larger crabgrass.

The key to good control with Drive is to apply the product to actively growing crabgrass. Another advantage of Drive is that it can be applied to more turfgrass species.

Common and hybrid bermudagrasses, Kentucky bluegrass, annual bluegrass, buffalograss, tall and fine fescues, annual and perennial ryegrass, zoysiagrass and creeping bentgrass (not putting greens) are all tolerant to Drive. Only bahiagrass, centipedegrass and St. Augustinegrass are sensitive to Drive.

Several other weed species are controlled by Drive, including kikuyugrass

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and torpedograss with multiple applications. Barnyardgrass, foxtail and broadleaf signalgrass are also controlled. Drive also offers control of several troublesome broadleaf weeds such as black medic, white clover, common dandelion, dollarweed and a few of the speedwell species.

It offers exceptional seeding and overseeding flexibility — allowing turf managers to seed many varieties of turf immediately before or after application. Drive 75 DF also carries a “caution” signal word.

Although Drive controls larger crabgrass, it's more effective on small crabgrass. In addition, as with all postemer-

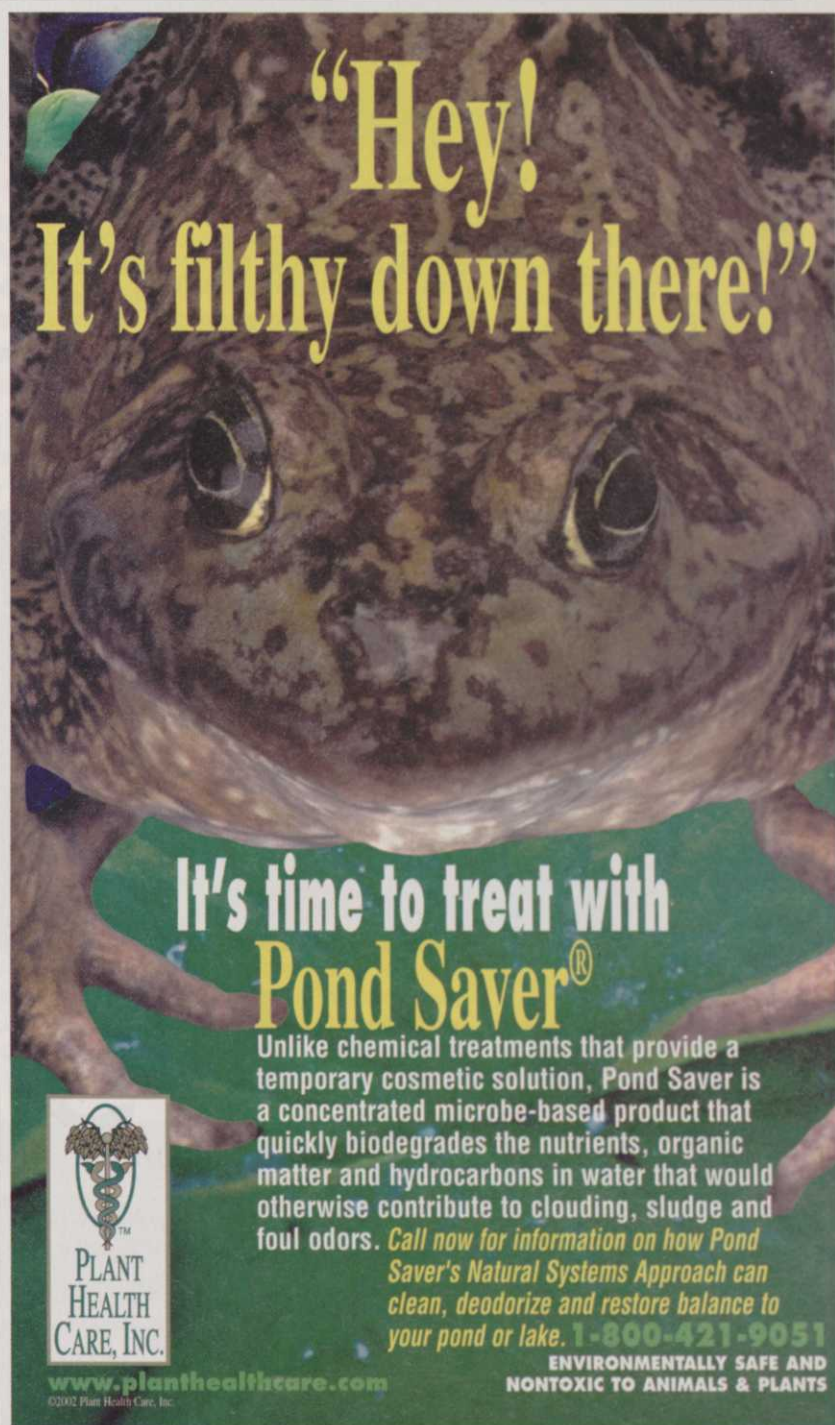
gent herbicides, actively growing weeds are more easily controlled with Drive.

However, this seems to be even more important with Drive than other herbicides. Control can vary from excellent to poor when the growth state of crabgrass goes from actively growing to inactive growth. As a result, it may become necessary to apply supplemental water

to turf a few days prior to Drive application. ■

Editor's note: Drive is a registered trademark of BASF AG, and Acclaim is a registered trademark of Aventis.

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