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Where Did All the Weeds Come From This Spring?

Fred Yelverton

As cool-season turf starts to resume growth and warm-season turf starts to green up in spring, one of the most common questions is “where did all of these weeds come from?” About this time of year, weeds seem to come out of nowhere to invade turfgrasses. As a result, turfgrass managers are busy implementing spray programs to eradicate them. Weeds that flower in the spring are usually winter annual weeds. Winter annuals are weeds that complete their life cycle in less than one year (go from seed to seed in less than one year). Some are perennials that only grow through the winter months and go dormant in summer, but these are much fewer in number than winter annuals.

Two questions arise from the presence of these winter annual weeds: (1) when did these weeds germinate? and (2) when is the best time to control them?

When did these weeds germinate? There is a lot of misunderstanding on this topic. Because these weeds are

only readily visible in the spring, it is easy to assume that they germinated in the spring. However, this is seldom the case. **A vast majority of winter annuals germinate in late summer or autumn.** They go dormant in the coolest part of winter (December through February/March) and as soon as temperatures start to warm in spring, they resume growth and flower in spring followed by seed production and death in early summer. They can be found before the onset of winter, but you usually have to look for them. This requires looking down through the turf canopy. In summary, for most winter annuals, they are there in the autumn but they cannot be seen unless you look for them. This brings us to the second question.

When is the best time to control these weeds? Let's approach this question in reverse. The worst time to try to control winter annuals is when they are the most problematic. That is when they are large and flowering in the spring. When they are at this stage of growth, winter weeds are the most difficult to control with postemergence herbicides because they are mature. **Control of winter annuals with herbicides in late spring generally requires the highest herbicide rates.** In addition, you could also argue against trying to kill them with herbicides because they are getting ready to die from hot weather anyway.

The best time to control winter annual weeds is either in late autumn when they are young or in very early spring just as soon as growth resumes after the winter. In either case, the weeds are very small and can be successfully killed with low herbicide rates. For most turfgrass managers, control in the very early spring is the best option. When temperatures start to warm in early spring and the turfgrass species start to resume growth, winter annual weeds also start to resume growth. Excellent control with low rates of postemergence herbicides can be obtained on warm days in early spring. As the winter annuals resume growth, the leaf cuticle is more easily penetrated by postemergence herbicides, which results in more herbicide uptake. In addition, because weeds are still immature, they are easier to kill. If the winter annuals are killed when small, they do not compete with spring greenup of turf. This often translates to a more vigorous turf in spring. 