

## WEED CONTROL STRATEGIES WHEN OVERSEEDING

Thomas M. Smith  
 President, Grass Roots, Inc.

Obtaining successful weed control when overseeding is sometimes difficult and frustrating. Adequate weed control is important to ensure the establishment of new seedlings. Unfortunately, many procedures for overseeding as well as the post establishment care also encourage weed germination. When overseeding is done at a less than optimal time of the season, weed competition can cause the overseeding to fail.

Several factors influence obtaining adequate weed control when overseeding. In general, these factors can be divided into four categories:

1. Overseeding techniques
2. Timing of overseeding
3. Herbicide usage
4. Post overseeding care

## OVERSEEDING TECHNIQUES

Procedures and techniques used to overseed can also increase weed seed germination. Seed soil contact is critical for proper turf establishment. But disrupting the soil surface also releases the weed seed bank and may cause excessive weed seed germination.

When overseeding, it makes sense to use equipment that does the least amount of disruption while still ensuring good seed soil contact. Equipment such as a slicer/seeder accomplishes this better than equipment like a power rake that disrupts the majority of the surface. Less disruption also leaves the existing turf in better shape.

## TIMING OF OVERSEEDING

Timing of overseeding can also play a big factor in reducing weed competition, and can also influence dramatically the success of the overseeding. Mid August to mid September is the ideal time to establish cool season turfgrasses in Michigan. Reduced weed competition in fall, especially from summer annual grassy and broadleaf weeds makes this time desirable. Our weather patterns this time of the year also provide conditions desirable for cool season turfgrass germination and establishment.

Unfortunately, overseeding at this ideal time may conflict with the intended use of the turf area. Shifting the overseeding to early August may give enough time for turf establishment prior to heavy use of the turf. This is only practical when overseeding with rapidly germinating grasses like improved perennial ryegrass or tall fescue. And it becomes very risky if good irrigation is not available.

Three other alternative timings for overseeding can be considered as long as the risks are understood.

A dormant overseeding can be accomplished in late fall. Timing can be after the intended use of the turf area is completed but should be before the ground is frozen. The freeze thaw action of winter will actually help establish good seed soil contact. And problems with site access associated with excessive moisture in early spring can be avoided. The down side to a dormant seeding is the risk one faces from mother nature. Severe weather during the winter or early spring can reduce germination. Hard freezes after germination can also cause some seedling damage.

Early spring overseeding is the second alternative. If the site is well drained, early spring overseeding can be accomplished. Overseeding can be timed before peak turf area use and prior to excessive weed germination. Difficulties arise as the spring progresses and weed competition becomes more intensive. Spring weather can sometimes become severe leading to washout of seed from intense thunderstorms or seedling damage from late freezes.

Finally, the least desirable time for overseeding, but one which may have to be considered due to turf use, is late spring or early summer. Hot dry weather of summer makes irrigation a necessity for the overseeding to even have a chance of establishment. Summer annual grassy and broadleaf weeds germinate and growth becomes very active this time of the year. Unless some chemical weed control is applied, overseeding this time of the year will most likely fail.

#### HERBICIDE USAGE

Herbicide use when overseeding thus may be required if the timing for overseeding is not ideal. Planning is critical to know what types of weeds to expect and to then prepare for proper control with herbicides. Improperly used herbicides can cause severe damage to seedlings or may prevent germination altogether.

The most troublesome types of weeds when overseeding are the annual grassy and annual broadleaf weeds. On established turfs, control of these weed groups is best achieved preemergently. But most preemergent products also inhibit or prevent cool season grass germination. Only one material, Tupersan, can be safely used when overseeding. All other available preemergent products will prevent cool season turfgrass seed germination. Dactal, however, can be used on seedling turfs other than fine fescues and bentgrasses. All other preemergent herbicides will damage seedling turfs. Table 1 summarizes the currently available products and their label recommendations pertaining to overseeding.

Acclaim is a relatively new and effective herbicide for postemergent control of annual grassy weeds. It is also remarkably safe for all seedling turfgrasses except Kentucky bluegrass. Acclaim will damage Kentucky bluegrass younger than four months and may stunt and discolor older Kentucky bluegrass stands.

Perennial weeds can sometimes pose problems when overseeding, although perennials are usually far less troublesome than annual weeds.

Perennial weedy grasses like quackgrass can only be controlled with a nonselective herbicide like Roundup. Wait seven days prior to overseeding

after Roundup application to ensure thorough translocation of the herbicide. Roundup will kill all desirable turfgrasses so it should be used only for spot treatment or where total renovation is desired.

Perennial broadleaf weeds are best controlled prior to overseeding. At least one month should pass from the time of herbicide treatment to the start over overseeding. If used after overseeding, most perennial broadleaf herbicides like 2,4-D require waiting until the new turf has been mowed two to three times prior to herbicide application. Reduced rates may be advisable even after this delay.

#### POST OVERSEEDING CARE

An understanding of the effect of post overseeding care in relation to weed control is the final factor to consider. The same care we give following overseeding to ensure good germination and establishment may also encourage weed germination.

The key to successful overseeding really involves getting the fastest germination and establishment possible to prevent excessive weed seed germination. Maintaining a moist seedbed becomes critical so adequate irrigation to supplement rainfall and a uniform mulch to conserve moisture are important management techniques. Providing adequate nutrients in the soil for good establishment is critical. Exact levels of phosphorus and potassium, both key nutrients for turf establishment, should be determined by a soil test. Finally, mowing as soon as needed will control many weeds before they become severely competitive with our turfgrass stand. Mowing also encourages the turf to increase in density.

#### SUMMARY

The following weed control strategies should be considered when overseeding:

Use the appropriate technique.

- Equipment should provide good seed soil contact while preventing excessive disruption of the soil.

Know the ideal time for overseeding and understand what must be done when overseeding at times other than ideal.

- Mid August to mid September is the ideal time to overseed cool season grasses in Michigan.
- Overseeding in early August can be successful with proper irrigation if using rapidly germinating species.
- Dormant overseeding will reduce weed competition but is risky due to the chance of severe weather.
- Early spring overseeding can be accomplished on well drained sites if the weather cooperates.

- Late spring/early summer is the least desirable time to overseed but can be successful with irrigation and proper herbicide use.

Use proper herbicides for effective weed control.

- Tupersan is the only preemergent herbicide safe for new seedings.
- Acclaim postemergently can be used on seeding turfs other than Kentucky bluegrass when applied on seedlings older than four weeks.
- Perennial weedy grasses should be controlled prior to overseeding with Roundup.
- Perennial broadleaf weeds are best controlled at least one month prior to overseeding with an herbicide. After overseeding, wait until the turf has been mowed at least two to three times before applying a broadleaf weed control.

Use proper post overseeding care to rapidly germinate and establish the turf before weeds can get started.

- Maintain a moist seedbed through supplemental irrigation .
- Conserve moisture by mulching.
- Provide adequate nutrients, especially phosphorus and potassium, and use a soil test to determine the recommended rates of application.
- Mow as soon as needed to control weeds and encourage turf density.