

Overseeding bermudagrass:

chemical vs. natural transition

By Scott McElroy, Ph.D.

Overseeding bermudagrass with perennial ryegrass is a good idea for many reasons. It provides a year-round green turf surface, increases winter playability, and potentially provides greater attraction of fall, winter, and early spring play.

One of the major problems with bermudagrass overseeded perennial ryegrass is the spring transition. During spring transition from a perennial ryegrass dominated stand to a bermudagrass turf stand, it is very difficult to have a seamless transition where one maintains uniform green turf. This is difficult because, in most situations perennial ryegrass can prevent 100% green-up by the bermudagrass. So, in non-overseeded areas when bermudagrass achieves complete green-up, the bermudagrass underlying an overseeded stand, is still partially dormant. An application of the a herbicide to kill the perennial ryegrass can leave empty brown patches until the turf greens up completely. This mottled green/brown turf would make one think that simply letting the ryegrass die-out on its own would be a better option.

If one chooses to simply let the perennial ryegrass "burn-out," or transition naturally, several new problems arise, one that is potentially worse than the mottled turf-clumpy volunteer ryegrass. You see,

some of the perennial ryegrass never burns out, even in the hottest of summers. This is problematic because the perennial ryegrass that does not burn out often turns into volunteer "clumpy" ryegrass. Clumps of perennial ryegrass are extremely difficult to control. Many herbicides and herbicide rates that are used to control ryegrass in a dense overseeded stand are not as effective controlling volunteer ryegrass. While low and mid rates of foramsulfuron (Revolver) and trifloxysulfuron (Monument) can control ryegrass in an overseeded stand, high rates of either herbicide is needed for 100% control of clumpy volunteer ryegrass. As a side not, in every area I have been in Tennessee where someone says that they completely transition their perennial ryegrass with no herbicide, we have found clumpy ryegrass.

When's it goin' go?

A second problem with letting the perennial ryegrass to burn out naturally is that you never know when it is going to go. If we have a dry spring the perennial ryegrass could die by mid-May, however with a wet, mild summer, most of the perennial ryegrass could stick around all summer, thus making the volunteer ryegrass situation worse. With a natural transition you have no control.



Clumpy volunteer perennial ryegrass that has survived the previous summer and now creates an uneven turf surface.



Rapid death of the ryegrass left open bare ground areas due to suppression of the bermudagrass.

Table 1: Pros and cons of natural versus chemical transition of overseeded ryegrass to bermudagrass turf.

Natural Transition	
Pros	Cons
Cost- Free	Removal is sometimes too fast
	Removal is sometimes too slow, if not at all
	Greater propensity for clumpy ryegrass invasion due to partial stand survival, aka, Clumpy Ryegrass
	Greater survival of perennial ryegrass in the summer can decrease bermuda grass health
Chemical Transition	
Pros	Cons
Potential for slow seamless transition	Cost- Definitely not free.
You control when you want the perennial ryegrass removed.	Seamless transition does not always occur.
Proper timing of ryegrass removal insures an adequate bermudagrass growing season	Repeat applications for a seamless transition is going to be more laborious.
Lower use rates and repeat applications of sulfonylurea herbicides can improve the potential for a seamless transition.	

A third and final problem of letting the perennial ryegrass transition naturally is that allowing perennial ryegrass continue to survive early into the summer is detrimental to the overall bermudagrass stand. Due to the potential for winter-kill or cool springs that delay bermudagrass green up in some areas, bermudagrass needs all the growing time it can get during the late-spring and summer. Experts agree, allowing 90 to 120 days of good growing conditions for bermudagrass during the summer is a good rule to follow when trying to optimize bermudagrass health. This means that bermudagrass needs June, July, August, and part September of growing for optimized stand health. Allowing perennial ryegrass to contaminate the bermudagrass stand will decrease stand health by decreasing the number of uninhibited days of prime growing conditions.

Chemical pros and cons

Let's start with the cons (see Table 1). The main negative is that it is difficult, even when herbicides are used, to remove the perennial ryegrass while maintaining 100% green turf cover throughout the transition. Maintaining 100% green-turf cover would insure a complete seamless transition, as the perennial ryegrass slowly dies, the bermudagrass just takes over.

The herbicide that provides the slowest kill, pronamide (Kerb) often does not achieve 100% control and a seamless transition is not always achieved. A cool period with high cloud cover during the time when the perennial ryegrass is dying can leave the bermudagrass stagnating, struggling to enter a period of vigorous growth. A weather pattern such as this can prevent that seamless period from occurring, leaving mottled green and brown turf.

What about the pros? The biggest pro to me is control. You have control over when you want the ryegrass removed. Newer herbicides in the sulfonylurea family, such as trifloxysulfuron (Monument) and

foramsulfuron (Revolver) for example, can provide a relatively quick, 100% elimination of the perennial ryegrass (Table 2). But then again, if the weather conditions are not optimal, the bermudagrass can still stagnate under cool conditions.

What should I do?

The first thing you should do is remember what your primary concern should be for that turf: bermudagrass health. In an athletic field or golf course situation, if you lose your bermudagrass base you are going to get a decrease in wear tolerance during the overseeded time during the fall, winter, and spring. If you allow the perennial ryegrass to linger longer than it should, you are creating a situation that is potentially decreasing bermudagrass health. A decrease in overall health of the bermudagrass can increase the propensity for secondary problems such as winterkill, or potentially reduced wear tolerance.

Second, remember that perennial ryegrass is primarily for appearance. You are creating a more resilient surface for the fall and early spring football and baseball season or simply trying to improve the

continued on page 22

Table 2. Primary products utilized for overseeded perennial ryegrass in bermudagrass turf.

Product Name	Generic Name	Rate	Speed of Transition
Kerb	pronamide	1.5 - 3.0 lb/a	3-6 weeks
Monument	trifloxysulfuron	0.3 - 0.56 oz/a	2-3 weeks
Revolver	foramsulfuron	17.4 fl oz/a	2-3 weeks
TranXit	rimsulfuron	0.5 - 1.0 oz/a	2-3 weeks

**YOUR "ONE-STOP SOURCE"
FOR AMERICA'S LEADING
BASEBALL SURFACES & SUPPLIES**



THE PROFESSIONAL'S CHOICE
... SINCE 1922

A SUPPLIER TO EVERY MLB TEAM,
OVER 150 MINOR LEAGUE TEAMS,
OVER 700 COLLEGES, PLUS THOUSANDS
OF TOWNS & SCHOOLS WORLDWIDE.
SPECIAL MIXES FOR INFIELDS,
PITCHER'S MOUNDS & HOME PLATE AREAS.

REGIONAL INFIELD MIXES AND
RED WARNING TRACKS FOR
EVERY STATE & CLIMATE FROM
BULK PLANTS NATIONWIDE!

PLUS INFIELD CONDITIONERS:

IF TOO HARD AND POORLY DRAINING!

Pro's Choice

THE REDDER, LESS DUSTY, MORE UNIFORM
INFIELD CONDITIONER & DRYING AGENT
FOR CONSISTENT INFIELD CUSHION
IN WET OR DRY WEATHER!

DIAMOND PRO

IMPROVES DRAINAGE & ENHANCES COLOR!
IF TOO SOFT & DUSTY!

STABILIZER® & HILLTOPPER®

FOR FIRM, YET RESILIENT, PLAYING SURFACES
TO QUICKLY DRY INFIELDS!

The Original & Most Absorbent is Now

NEW & IMPROVED GRANULAR

DIAMOND-DRY.



WHAT!
We Came 100 Miles
And You STILL Don't Use
**DIAMOND
DRY!**



OVER 200 OTHER INFIELD PRODUCTS!

3 Grades & 6 Colors!

FENCEGUARD

Protective Safety Covers
for Chain Link Fence

WALL PADDING • WINDSCREEN • RAIL PADDING
TAMPERS • DRAG MATS • RAKES
HOLLYWOOD® BASES • FIELD MARKING MACHINES
BATTING PRACTICE COVERS • RAIN COVERS
PERMA-MOUND™ PADS • MOUND BRICKS
SAFE "T" MATT™ BATTER'S BOX PADS
TYPAR® GEOTEXTILES & TURF BLANKETS
ON-DECK CIRCLES WITH TEAM LOGOS
PERMANENT FOUL LINES & MUCH MORE!

FREE INSTRUCTIONS & BROCHURES

www.BEAMCLAY.COM

800-247-BEAM

908-637-4191 / FAX 908-637-8421

PARTAC PEAT CORPORATION

KELSEY PARK, GREAT MEADOWS, NJ 07838

"The best infield mix I've ever used."

— **GEORGE TOMA**

Circle 161 on reply card or
www.oners.ims.ca/5904-161.

FIELD SCIENCE

continued from page 10

aesthetic appearance of dormant bermudagrass. The additional wear tolerance that a perennial ryegrass overseeding provides is minimal at best and can often decrease the health of the bermudagrass during spring green-up. Let's face facts, the primary reason for overseeding is aesthetics, period.

So here is what you do. First, plan your spring transition somewhere between May 1 and June 15 (more southern areas such as Florida and Texas can go earlier). Any earlier than May 1 and the bermudagrass can stagnate and not fill in fast enough. Any later than June 15 and you are encroaching too far into the optimum bermudagrass-growing season.

Next, determine why you need the overseeding in the spring. Do you have a late spring/early summer tournament, spring baseball/softball season, or spring training for football? After your main event is completed, chemically remove your overseeded grass and get the bermudagrass going. And as much as I hate to say it, you have to teach management about the problems of transition. It is just part of overseeding and the fields may not look their best for a couple of weeks.

Third, face facts: If you've got the money to buy the seed, you've got the money to chemically remove it. So take control of the situation, remove the ryegrass on your time

schedule, and optimize the growing potential of your bermudagrass.

Figure 3 provides a flow chart of some basic questions you can answer to determine what is the best method, natural or chemical transition, is the best for you. Because in the end, you have to do what is best for your facility taking into account, environmental, usability, aesthetic, time, and budgetary constraints.

It is my opinion that some of us should take a step back and consider why we are overseeding in the first place. If you are thinking that you don't have the budget to chemically remove the ryegrass, then you don't have the budget to overseed, plain and simple. For most, chemical removal is part of overseeding. It is not an option.

Finally, some of us need to remember that we are in the business of growing bermudagrass. If you lose your bermudagrass base you will have nothing to hold you overseeded. And a young seedling stand of ryegrass unprotected by the stolons of bermudagrass does not last long at all. In all cases, do whatever is necessary to maximize the growth of the bermudagrass. ■

J. Scott McElroy, Ph.D., is a Turfgrass Weed Scientist at the University of Tennessee in Knoxville. See <http://turfweeds.utk.edu>.



Bermuda blend

The Bermuda Triangle is not a mystery anymore! Three of Pennington Seed's better-seeded varieties have been blended together to provide an excellent turf with wide adaptation. These top performing varieties have improved turf density, color and moderate cold tolerance. For turf that stands up to the demands of today's turf professionals and the best of the best, seed **Bermuda Triangle Blend**, featuring certified Mohawk, Sultan and Sydney turf-type bermudagrasses.

Pennington Seed/800-285-7333

For information, circle 068 or

see <http://www.oners.ims.ca/5904-068>