

# Seeds for the Future

## Turf Technical Bulletin



### Establishing Kentucky Bluegrass into Perennial Ryegrass or Changing Genetics

Sports fields and fairways that were initially Kentucky bluegrass eventually become primarily perennial ryegrass or *Poa annua* due to years of heavy play, repairs and overseeding. Different strategies to reestablish Kentucky bluegrass depend on whether herbicides can be used before or after seeding.

#### The factors that lead to difficulties in seedling establishment

1. Perennial ryegrass or any mature plant out-competes the seedling for moisture and nutrients.
2. Above ground canopy can shade new seedlings reducing germination and growth.
3. How rapid conversion is achieved depends on how many of the recommendations (*below*) are followed.

#### Conversion without Herbicides (*partially based on Keeley et al, 2006. Feb. GCM*)

1. Scalp the turf as low as possible with your equipment (*they cut ryegrass at ¼ inch or 0.6 cm*).
2. Core aerate with ½ inch tines.
3. Vertical mow in two directions at ¼ inch depth with blades on ¾ inch spacing.
4. Remove debris and seed Kentucky bluegrass at 2 to 3 lbs/1000 sq. ft. (100 -150 kg/ha) twice per year or 4 to 6 lbs/1000 sq. ft (200 -300 kg/ha) once per year.
5. Rake and/or roll for good seed to soil contact
6. Irrigate lightly to keep seed bed moist.
7. Low mow (1/4 inch or the lowest setting on your equipment) twice a week for four weeks.  
This reduces competition and allows seedlings to establish.
8. Fertilize with 0.5 to 1 lb. of N/1000 sq. ft. every 15 days until 100% cover.

#### Conversion with Glyphosate and/ or other selective herbicides (*based on Minner, Reicher*)

1. Seed Kentucky bluegrass using a seeder or after vertical mowing at 4 lbs/1000 sq. ft.
2. Spray existing stand of grass with glyphosate on same day or within 3 days after seeding.
3. Bluegrass establishes while old turf and weeds are dying.
4. Use Mesotrione (*Tenacity*) for annual bluegrass and crabgrass control.
  - a. Use 3 to 5 applications of Tenacity to a maximum of 16/oz/acre/year.
  - b. Tenacity works best in summer months but can be used in the fall.
  - c. Apply from every three days to every two weeks.