RUTGERS CORNER -
LATE SPRING/SUMMER TURF ESTABLISHMENT
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In New Jersey and throughout the Mid-Atlantic and Northeast, the ideal time to establish cool season turfgrass species from seed is late summer through early fall (August 15-October 1). Weather can be dry at this time of year, allowing for ideal conditions to cultivate soils, prepare seedbeds, and apply seed. Soil temperatures are such to allow rapid germination of seed and vigorous growth assuming adequate supply of water and proper soil fertility. While annual bluegrass encroachment can be a serious problem associated with this establishment timing, summer annual weeds such as crabgrass, goosegrass, and prostrate knotweed are typically not germinating in late summer though early fall.

Despite intense field use in late summer and throughout the fall, seed can still be introduced to a sports field. While not as effective as slit-seeding methods, sports field managers have found success by simply applying seed through a rotary spreader before a game and allowing athletes “cleat-in” the applied seed and thus achieve seed-to-soil contact. Perennial ryegrass is an excellent species choice for this type of establishment procedure. To access the Rutgers Cooperative Research and Extension Fact Sheet Perennial Ryegrass Varieties for New Jersey Sports Fields visit www.rcre.rutgers.edu/pubs

If late spring and summer is the time in which turf establishment is chosen, it must be recognized that the chances of a seeding failure are high. The pressure from summer annual weeds can be very high, particularly if the site has been plagued with crabgrass, goosegrass, and knotweed in previous years and the weeds have been allowed to set seed the previous fall and subsequently replenish the soil seed bank. Tupersan (siduron) is a preemergence herbicide that may be applied at the time of seeding and will provide a level of crabgrass control without inhibiting cool season turfgrass establishment. Tupersan is not labeled for preemergence control of goosegrass.

Summer annual grassy weeds may need to be treated with a postemergence herbicide to produce a clean turfgrass stand and guard against these weeds producing additional seed in the fall. Products such as MSMA, DSMA, Drive (quinclorac) and Acclaim (fenoxaprop) are postemergence products that should be considered for this use. Note that the phytotoxic effects of these herbicides on cool season turfgrasses will be dependent upon specific turf species as well as degree of establishment and while products such as MSMA, DSMA, and Drive are effective on immature crabgrass, these products will not control goosegrass. Acclaim will control goosegrass as well as multi-tillered crabgrass. The above listed Rutgers Cooperative Research and Extension website provides access to the Fact Sheet Crabgrass and Goosegrass Control in Cool Season Turfgrass authored by Dr. Steve Hart, Extension Specialist in Weed Management in Turfgrass and Ornamentals, Rutgers Univ. This document provides detailed information on these products and is an excellent reference to assist in product choice.

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For a late spring/summer establishment project, the access to irrigation is critical. Even if favorable weather allows for seedbed preparation, seeding, and initial germination in lieu of irrigation, the onset of hot summer temperatures will kill young immature turfgrass seedlings if supplemental water is not available when needed. If irrigation is not available, the best option is to delay the seeding project to late summer/early fall and utilize a mulch such as straw following seeding to assist the soil surface in retaining moisture.

Summer turfgrass establishment is especially prone to diseases caused by *Pythium* and *Rhizoctonia* spp. *Rhizoctonia* is the fungal organism that causes brown patch. The collective term for the effects of these seedling diseases prior to and following turfgrass germination is ‘damping-off.’ Hot and humid weather, excessive soil moisture, and over-fertilization with nitrogen (N) create an environment where these diseases can flourish. These diseases can be difficult to prevent during the summer as hot temperatures and oppressive humidity are beyond a sports field manager’s control. There is a fine line between keeping a seedbed moist and over-irrigating and as well as ensuring adequate N is available to new seedlings and applying too much N as to promote diseases such as *Pythium* and brown patch.

Fungicides are a chemical means of combating turfgrass diseases as part of summer establishment, particularly where excessively hot and humid temperatures are in the forecast. Subdue GR (metalaxyl) is one such fungicide that can be applied following seeding to prevent Pythium. This is a granular formulation and can be applied with conventional spreading equipment. The Rutgers Cooperative Research and Extension Fact Sheet *Plant Disease Control: Chemical Control of Turfgrass Diseases* is available for download at the previously mentioned website and provides additional chemical control strategies for turfgrass diseases.

The drawbacks of late spring and summer turfgrass establishment are numerous and the chances of seeding failure are high for reasons detailed above. Textbooks authored when turfgrass science was in its infancy made the case for late summer and early fall establishment of cool season turfgrasses. In 2006, the case is still strong.

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