

ORGANIC TURFGRASS MANAGEMENT

By Dr. James Murphy

QUESTION FROM A CONTRACT TURF/LANDSCAPE MANAGER:

A municipality has put out a request for proposal (RFP) to have the municipally owned properties (parks and recreational turf fields) managed 'organically'. There is a bid meeting scheduled for interested bidders. What information would be helpful to know regarding the feasibility and kind of questions to ask the municipality at the bid meeting?

ANSWER:

First and foremost, you need to ask the municipal officials whether the intention of the RFP is integrated crop/pest management (ICM or IPM) that minimizes the use of pesticides or a true 'organic' management philosophy that eliminates use of all synthetic pesticides and fertilizers. Some incorrectly believe that IPM and 'organic' management are the same. Certainly the environmental goal of reducing or eliminating pesticides is commendable; however, it is important to notify everyone involved that the elimination of all synthetic pesticides has consequences that will be considered undesirable by some.

Applying a true organic philosophy to sports field management will NOT be prudent IF the municipality also expects turf/playing conditions to be identical to or better than can be achieved with synthetic pesticides and fertilizers. At this point in time, there simply are NOT enough viable organic pesticides/alternatives available to manage all of the potential pest issues on sports turf fields (which also have to persist under the wear-n-tear of extensive play/sports). Therefore, severe pest and mechanical (traffic) damage on organically managed sports turf will be a matter of WHEN not IF. Considerable hard work and creativity by the grounds staff and an understanding by all users (players, coaches and parents) is essential before an organic approach on sports turf will be viewed as successful within the municipality.

Weeds will probably be the first major issue faced in a true organic management program. Currently, the efficacy and very limited number of organic herbicides available make it virtually impossible to keep out invasive annual and perennial weeds on sports turf (researchers continue looking for more effective organic alternatives but this is a slow process). Annual weeds are particularly problematic as these weeds die each year (hence the name annual) and expose bare soil to the erosive forces of wind and water and the compactive forces of athletic and maintenance equipment traffic, which further degrades soil conditions and the ability to grow healthy turf.

The municipality must recognize that routine renovation (probably one or more per year) will be required for any chance of moderate success of sports turf under 'organic' management. Renovation that involves extensive overseeding (or sodding) in combination with the best implementation of aeration, fertilization, irrigation and mowing practices will be critical for organically managed sports turfs. Moreover, the exact timing and resources needed for renovation work are very difficult to predict since the severity of pest and environmental stress damage varies in both time and space across a facility (property). Thus, the municipality must be prepared to provide or pay for these services in

a timely and on an "as needed" basis. Also it is important that the municipality realize that there is no guarantee that an organic management philosophy will be viewed as successful by all users of the fields.

The organic philosophy for managing crops and livestock has grown in popularity and subsequently become big business in the United States. Interested persons are now seeking to transfer this organic philosophy into areas such as sports turf management. Unfortunately, one major deterrent to developing effective organic practices on sports turf is that there isn't a good analog in nature to use as model. Organic crop and livestock management systems are often based on an evaluation of how these organisms grow and survive in a diverse and naturalized ecosystem to design better management strategies. Finding an appropriate natural analog for sports turfs is very difficult. Sports turfs typically are grown on poorly constructed and highly degraded soils and are often expect to grow under intense traffic (trampling) throughout the year; conditions that are not mimicked in nature. Moreover, there are very few grass species that can be effectively used for sports turfs. More research is needed in the area of 'organic' turf management before sound recommendations can be provided that satisfy all citizens, administrators and users of these fields.

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SFMANJ Returns to Shore Regional and Monmouth Park on May 7, 2008

(continued from page 1)

In preparation for the Breeders' Cup event, the turf course was reconstructed in 2005-06 utilizing the expertise of a Rutgers-assembled team consisting of a thoroughbred turf track specialist, irrigation specialists, civil engineers, and agronomists.

In April 2006, attendees at Spring Field Day observed the final rolls of sod installed at Monmouth Park in preparation for the 2006 racing season and ultimately the Breeders' Cup. Spring Field Day 2008 will give attendees the opportunity to see the high quality condition of the turf course two years after reconstruction and learn how the track is being prepared for the upcoming 2008 racing season.

Watch for an upcoming SFMANJ mailing to register for this event.

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