



## Natural Turf Management: An Overview

At some point discussion takes place regarding lawn and turf management programs in a variety of different situations. We understand that for many people there is a growing awareness about the chemical products used to maintain lawns and turf. Many also realize the impact of some of these products on the environment. They are aware that some chemicals, even at low dose exposures, may be harmful to public and children's health.

Included here is an explanation of the principles and protocols of natural turf management based on detailed soil test data, site assessments, and then recommendations for beginning a natural approach to turf management. I will talk a bit about how we do an RFP for these types of programs.

It is important first to document the existing physical condition of the turf areas and to establish a baseline soil analysis for chemistry, texture, and nutrient availability. A review is generally prepared with the idea that the property will be incorporated into a natural, organic management program, and all recommendations are made with that in mind. One important difference between an organic program and a conventional one is that our programs become much more site specific as opposed to a generalized approach to fertility and weed control. We are addressing what needs to be addressed in an appropriate way. Certainly, product for fertility management and building the soil biomass is important, and our approach is to address the needs of individual properties. That is not to say that we are going to have many different programs on multiple areas or playing fields, but rather that we are addressing any deficiencies or allowing for the inclusion of strategies that will help move a property through the transition process as quickly and efficiently as possible.

When we discuss different management levels, we are referring to the cultural intensity required to maintain an individual turf area to the degree that meets expectations. There is not just one organic program, but rather different programs with different levels of intensity that can be created to meet the needs of an individual site. Recommendations are made based on communicated expectations.

Cultural intensity is the amount of labor and material inputs required to meet those expectations. One fact is a given in either a conventional or natural turf management program; minimal product and labor inputs meet low expectations, while higher levels of inputs meet higher expectations. This is true in any type of program, conventional or natural. We design programs to address the soil and turfgrass that will meet the expectations for the site.



When a natural management program is put in place, there is a window of time referred to as the transition period. It is during this timeframe when new products are put in place and specific cultural practices are followed. During transition, the most important aspect is to focus on the soil, not just texture and chemistry, but the biomass as well.

Addressing the living portion of the soil from the beginning makes the transition successful. The length of time for this process has a direct relationship to the intensity of conventional management practices that may be currently employed.

Conventional turf management programs are generally centered on a synthetic product approach that uses highly water-soluble fertilizers and pesticide control products to continually treat symptoms on an annual basis. It is important to acknowledge that in addition to having adverse effects on human health and the environment, pesticides by definition kill, repel, or mitigate a pest. They do not grow grass. Our approach will be to implement a strategy that proactively solves problems by creating a healthy soil and turfgrass system. Healthy, vigorously growing grass will out-compete most weed pressures, and a healthy soil biomass will assist in the prevention of many insect and disease issues.

We are following a Systems Approach to Natural Turf Management® that is designed to put a series of preventative steps in place that will solve problems. This approach forms the basis for our recommendations. This systems approach is based on three concepts. It involves 1) natural product where use is governed by soil testing or site considerations, 2) the acknowledgement that the soil biomass plays a critical role in fertility, and 3) specific and sound horticultural practices.

The goal of a Natural Turf Management program is to create turf that is both aesthetically pleasing and meets site objectives. At the same time, this turf will provide a surface that will be healthy and free from toxic chemicals. The products and program discussed will be designed to utilize materials and adopt cultural practices that will avoid any runoff or leaching of nutrients and control products into the water table.

Ours is a “feed-the-soil” approach that centers on natural, organic fertilization, soil amendments, microbial inoculants, compost teas, microbial food sources, and topdressing as needed with high quality finished compost. It is a program that supports the natural processes that nature has already in put in motion. These inputs, along with very specific cultural practices, that include mowing, aeration, irrigation, and over-seeding are the basis of the program.

It is our experience that this approach will build a soil environment rich in microbiology that will produce strong, healthy turf that will be able to withstand many of the stresses that affect turfgrass. The turf system will be better able to withstand pressures from use, insects, weeds, and disease, as well as drought and heat stress, as long as good cultural practices continue to be followed and products are chosen to enhance and



continually address the soil biology. While problems can arise in any turf system and may need to be dealt with, they should be easier to alleviate with a soil that is healthy and that has the proper microbiology in place.

As you can see, there is a lot that goes into a natural program, but it does not have to be overly complicated or costly. It is much more than just a product for product swap. When we see situations where an organic program has been simply the product swap, we usually see situations that have not resulted in satisfying higher levels of expectations. In a situation where a municipality or other entity subcontracts applications of product and cultural practices, it requires someone internally that possesses the knowledge about organic turf management to perform the initial soil testing and outline a program. That program then is incorporated into an RFP and goes out to bid. What cannot happen is letting an individual service provider come in and create a program that seems to make sense to them based on their product choice.

When we craft an RFP for an annual program, it becomes very specific. Detailed dates, products, rates, and cultural practices are included so that when service providers bid, it is apples to apples. If a service provider takes the soil tests, then they would interpret them and suggest a program. That leaves a very variable situation that might lead to multiple program approaches with very different costs being presented. It is a little trickier with a RFP for outsourced program implementation than it is when the work is being done in-house.

A little about Osborne Organics; we are neither service providers nor a product company. Osborne Organics has been part of the process of moving turf and landscapes from conventional management practices to a natural approach in a variety of situations and at different levels for the past twelve years. We have the technical expertise to apply the principles and practices of natural turf management in the field. It is an approach backed by sound science that responds to the need for a safer and healthier landscape from both the environmental and human health perspective.

Osborne Organics provides educational opportunities in the form of in-depth trainings to both landscape contractors and the municipal sector in natural turf methods. We have conducted programs in various regions of the country with the goal of assisting in growing the knowledge base in the field of natural turf management. These seminars are presented to large audiences or customized to small individual groups.

One of the unique capabilities of Osborne Organics is the ability to discuss the concept of healthy turf and landscapes with groups ranging from homeowners to politicians and municipal and private sector grounds staff to decision makers. With fifteen years experience in the arena of turf and sustainability from the environmental and public health perspective, we have amassed a body of knowledge that supports the mission of the company



When turf and landscape management programs are designed to address the move from a conventional approach to a natural one, we work within the transition period to assess and address the needs of our clients. As a consultants, we create different levels of management whereby we determine the cultural intensity required to meet the needs of the soil and turfgrass and at the same time meet expectations of the client while working within budget constraints.

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