

Managing trees, shrubs and other ornamentals at sports facilities

Ornamentals play a significant role in the overall success of a sports facility. To many spectators, the enjoyment of their game attendance is influenced as much or more by the aesthetics and function of the landscape at the facility as it is by the turf or outcome of the contest. This article will provide the sports turf manager with some of the tools and techniques to successfully manage the ornamentals at their facility.

ORNAMENTAL PLANT MAINTENANCE HIERARCHY

In the overall scheme of maintenance activities at a sports facility, a hierarchy exists. Depending on the size,

intensity of management and range of teams that are routinely using it as well as the number of practice, game and tournament quality fields that are present, varied levels of time are spent on different parts of a given complex for care of the turf. The same is true for trees, shrubs, groundcovers, perennials, annuals and containers. The important consideration is to recognize the hierarchy and devote time accordingly. For example, a high-interest tournament field might have adjacent shade trees, container plantings and shrub/perennial beds to care for routinely basis, while a practice field has little to nothing in the way of ornamentals associated with it. A thoughtful differentiation within the hierarchy is certainly a worthwhile endeavor.

▼ **WELL PLACED** shade trees at a sports facility. All photos by John C. Fech, UNL.



SIMPLE MAINTENANCE PLAN FOR THE SPORTS FACILITY

Once the hierarchy has been established, a simple maintenance plan is a natural second step. It can be set up field by field or by groups of plant material...either is fine as long as it gets accomplished. Just like a schedule for aeration, overseeding, irrigation, fertilization, mowing, disease/insect monitoring and other important aspects of field maintenance, a plan should be set up for ornamentals. Many sports turf managers have found it useful to establish a calendar format and conduct maintenance duties for both turf and ornamentals accordingly. Each month, a calendar is posted in the maintenance shed with an outline of the jobs and projects in the weeks and months to come. Written with grease pencil and a white board or a simple poster on a wall, these tools provide a helpful reference for all employees at the facility. Pruning shrubs, replacing mulch, planting bulbs, inspecting for disease and insects, removing weeds and monitoring the sprinkler systems are examples of items to be attended to in a simple maintenance plan.

SOILS AND FERTILITY

All plants in the sports turf landscape are not the same. On average, ornamentals require about a third to a fourth as much water and fertilizer as turf. As such, they should be cared for differently. Rooting depth tends to be



▲ **Left:** Inspection during site assessment is an important facet of maintenance. **Middle:** Mulch serves various purposes; it can reduce maintenance during mowing and serve to protect tree trunks from damage. **Right:** Providing shade and amenity is important, but ornamentals shouldn't encroach on the playing surface.

different as well. Approximately 85% of the roots of most trees, shrubs and flowers are located in the upper 24 inches of the soil profile. Naturally, the depth and density of the root system varies with the species and age of the ornamental. Newer plantings of woody plants usually produce “spiker” or “sinker” roots to provide initial stability as well as horizontally growing feeder roots, and then transition to a greater percentage of lateral roots as they mature. The locations of the roots in the profile have consequences in terms of the best placement of applied fertilizers and pest control agents as well as potential encroachment of roots into the sports field. When necessary, delivery via surface application or through drip irrigation systems is a good approach.

GOOD BED DESIGN

The critical factors with good bed design are separation of turf and ornamentals and the creation of a smooth and naturally flowing bed line.

As mentioned above, ornamentals have different needs in terms of water and nutrients. As such, the irrigation zones for ornamentals should be set for shorter runtimes and fewer days of the week. Regardless, the key principle of watering to the depth of the roots and keeping the roots moist but not dry or soggy is important for both turf and ornamentals.

The lines of separation between turfgrass and ornamental plants should be natural and flowing rather than abrupt and geometric. Gentle bed lines are much easier to maintain and more pleasing to the eye than ones that create rectangular or narrow beds. Within the bed, size and function of plant material are important considerations. Trees should be placed such that they provide shade for fans and overall amenity without interfering with sports play. Implementation of gradation and recognition of the mature size of specimens should be considered with the taller plants being placed towards the back of the bed and shorter material in the foreground.

SITE ASSESSMENT

For established ornamental plantings, a site assessment is a very helpful process. Actually, assessment is composed of two steps: an assessment, the initial documentation of the existing conditions and

status of the plantings; and analysis, a set of value judgments and possible recommendations for the future health and welfare of the plants involved. For example, a tree may appear yellowish and struggling (the assessment), and upon further investigation, it is determined that it has a nutrient deficiency and soil treatment or nutrient injections could provide it with a fighting chance to return to good health (the analysis).

A sample set of questions to use in site assessment/analysis is:

- Tree roots growing into the field?
- Plants too close to the field?
- Trees with defects near the field?
- Trees with nutrient deficiencies or pest infestations?
- Insufficient ornamental plantings?

Where could some easy to care for plantings be placed?

The positive benefits that proper mulching provides are many, while the negatives are few.

In some cases, after the questions are asked, assistance from another green industry specialist should be sought. In the case of the safety of a tree near a facility, an ISA (International Society of Arboriculture) certified arborist should be consulted to inspect the tree to determine if defects such as crossing limbs, decay, girdling roots, basal flare injury or co-dominant leaders are present. If so, action must be taken to remove or stabilize the tree in such a manner that it no longer poses a threat to people and property at the sports facility. Seeking the advice of a certified expert will not only increase the overall safety of the area, it will greatly diminish the liability of the property to potential lawsuits.

Perhaps one of the easiest but most advantageous maintenance practices for ornamentals at a sports facility is mulching. The positive benefits that proper mulching provides are many, while the negatives are few. The overall objective is to replicate what Mother Nature provides, namely a naturally occurring layer of twigs, leaves and fallen bark—at the ball park. Using organic mulch made from processed pieces of former woody plants provides weed suppression, cooler soils, moisture retention, nutrient recycling and a clean, neat

Facility & Operations

appearance for the plant materials.

On the practical side, another benefit is that well placed mulch creates a barrier between bored or distracted teenage mower operators and the trees and shrubs that are near the sports field.

Otherwise referred to as “mower blight,” damage to the trunk of a young tree greatly decreases the capacity for water and nutrient flow and creates openings in the bark and sapwood that facilitate decay and degradation of the woody tissues inside.

The two-part question always arises: “How deep should the mulch be and exactly where should it be placed? The two-part answer is: Starting 3 inches away from the trunk of woody plants and extending it as far into the sports facility landscape as is feasible is the best placement of mulch. A depth of 2-3 inches is desirable for most ornamental species.

Of course, mulch is not a panacea for all that ails an ornamental planting or a silver bullet for the sports turf manager looking to completely ignore its care. Mulch needs to be replaced over time



▲ **Left:** Gentle, easy to follow bed lines increase the ease of maintenance; a few well placed shrubs would complete the planting and cut down on fans cutting through the bed. **Right:** Mower blight causes disruption in water and nutrient flow.

and is an expense that must be included in the overall budget, but should be considered to be as important as a mower or irrigation system for the field turf.

Without a doubt, ornamental plantings that include groundcovers, perennials, annuals, containers, trees and shrubs can provide attractive surroundings as well as many desirable functional attributes for players, coaches and fans alike. Proper care must be taken to maintain them in a safe and responsible manner for the benefit of all. ■

John C. Fech is a horticulturist with the University of Nebraska-Lincoln and an ISA Certified Arborist.

The Best Dressed Sports Fields Start Out In Our Hands.



Major League Baseball. National Football League. Major college programs. High School teams. America's leading sports fields use America's best field marking paints and custom stencils. When great teams choose to decorate their fields, they turn to World Class.

WORLD CLASS
athleticsurfaces

We Make The Games Look Better • www.worldclasspaints.com • 1-800-748-9649

SEE US AT BOOTH #237



Rugged. Consistent. Dependable.

The Best Field Chalker in the Business. **Beacon Streamliner.**

Beacon *Streamliners* are simply the best dryline field chalkers you can buy.

Our field testing has proven the *Streamliner* delivers the most consistent, solid line while saving chalk and reducing costs. It uses 30-50% less chalk than other chalkers. Use your smart phone to scan this code and **watch it in action!**



BEACON ATHLETICS



800-747-5985 BeaconAthletics.com

FOR FACILITIES . FIELD MAINTENANCE . GAME-PRACTICE EQUIPMENT