

Sport Of Polo And The Management Of Its Facilities

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Maintaining safe, quality polo fields increases the value as a sport surface for better play and spectator viewing. The maintenance should follow the procedures to insure safety first, polo playing quality second and turfgrass quality third. The sport of polo is growing and the demand for turfgrass maintained to withstand and recuperate from over-played fields is labor intensive and expensive. Poor maintenance decisions can be extremely costly, especially at installation. Playing wet fields even at high turf density can drastically set back the turf quality and repair should be immediate and effectively executed. Higher goal or faster playing polo also increases wear so the maintenance program must be designed to address the type and frequency of play and the expectations of quality required. It could be maintained for Sunday afternoon polo, or just a stick and ball practice field. Budgets for some polo clubs are limited, especially those where the land is owned and maintained by a public park district. Water availability and maintenance supplies and equipment are sometimes limited, making it more difficult for the turf manager.

Unfortunately the season for best turfgrass growth and the season for polo do not always overlap. Winter polo is preferred in the southern part of the United States where our warm season grasses are used. Fields of common and hybrid bermuda, bahiagrass, St. Augustine and kikuyugrass are growing at their slowest rate during the winter season. This reduces the amount of wear the grasses are able to recuperate from. Alternative weekly overseeding programs with perennial ryegrass at heavy rates will rapidly fill in worn areas. This is a practice which has been used extensively on bermudagrass greens, tees and fairways for better winter golf.

Pre-germinating seed and spraying with activated charcoal solution for increased heat absorption and germination speed are procedures which prove too costly for a large polo field - one which equals nine football fields in size. The high temperatures of summer make the warm season grasses so aggressive they will choke out all the perennial ryegrass which must be reseeded again late the following fall. This period of hot weather is a good chance for the recuperation of the warm season turf species. Players and ponies migrate north for their summer polo activities, reducing the amount of play. It is during this period that cultural practices such as vertical mowing and aeration can be done with time to recuperate before the next polo season.

Maintaining Cool Season Grasses

Once again the cooler weather of the Northern United States during the summer provides the best climate for polo but not cool season grasses. Fields of bluegrass, perennial ryegrass, fine fescue, tall fescue and various combinations are growing at their slowest rates in the middle of the summer. Their optimum growth periods are spring and fall. This slow growth reduces the amount of play the field can withstand and increases the level of maintenance required, such as watering, topdressing and overseeding problems. The deeper rooted plant can resist tearing better than a shallow rooted plant and the ability for these roots to obtain moisture increases the drought tolerance and summer field quality.

Bluegrass has been the preferred grass selection for polo as it grows by rhizomes which spread and form a dense sod turf. Disease coupled with poor drought tolerance can be a problem if required irrigation is not supplied. Bluegrass could become dormant resulting in a slick field, dangerous for play. The recuperation from wear ceases if under heat and drought stress. Alternative overseeding, topdressing and additional watering programs may be necessary. The best time for cultural practices such as aeration and vertical mowing is in the fall and early spring when cool weather promotes active growth. A rest and recuperative period is provided because players and ponies migrate south for winter polo, thus reducing play. Indoor arena polo has also been a growing sport and offers an opportunity for winter play in cool climates.

In recent years plant breeders have developed many cultivars of tall fescues that offer a great potential for polo field surfaces. Unlike bluegrass, tall fescue is a very drought tolerant species. It does not grow by lateral rhizomes, thus does not form as strong a sod. It grows as a bunch type which characteristically has a deep root system. Previously the only available tall fescue variety was K-31 which has a very wide leaf blade thus resulting in a coarse texture. Plant breeders have developed turf type tall fescue varieties with narrow leaf blades and texture almost as fine as Kentucky bluegrass. At heavier seeding rates the rapid establishment and density can provide turf quickly that has characteristics which can allow for reduced maintenance and water requirements in summer.

Tall fescue also has a greater high temperature survival than bluegrass and grows in areas too far south for bluegrass survival and too cold for effective use of warm season grasses. This transition zone has seen a tremendous use of turf type tall fescue on home lawns replacing the high maintenance of Kentucky bluegrass or having to look at a dormant bermudagrass lawn which would have to be overseeded or dyed for aesthetic quality. More fields will be seeded to tall fescues in both the transition area and Northern United States.

Polo Field Establishment

The area to be established for polo field use should be well inspected to insure the best location is selected. Preferably the field should lie north to south to avoid sun glare. If the present property is covered with perennial weeds the use of a nonselective herbicide like Round-Up should be applied prior to excavation to insure movement of the chemical into roots for total kill. This helps to eliminate perennial grasses, such as quackgrass, bentgrass or any unwanted perennials species which cannot be controlled easily after establishment. The soil should be tested to determine there is not a pH imbalance. If there is a pH problem it can be corrected by the incorporation of lime or sulphur while the ground is being prepared for seeding.

If the soil texture reveals a high percentage of clay or silt, you must realize that there is a potential for drainage problems with game delays and cancellations, which can present scheduling problems. The drainage problem can be addressed before establishment by the installation of a drainage system specifically designed for the best water movement for that particular site. Sand splitting for established fields with drainage problems has proven very successful on established soccer fields in Europe, and equipment has been imported to the United States recently to improve athletic surfaces here. The ideal classifications of soil texture are the sandy lawns which allow for good water movement through the field, minimizing the potential for compaction. The addition of soil amendments and installing better soil textured root zones can prove quite costly when considering the size of a regular size polo field.

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Turfgrass species selection will depend on the use imposed, geographical location and climatic conditions the site is exposed to. In seeding, the best long term protection against disease development involves the blending of 4-6 cultivars of the turfgrass species selected. Each individual cultivar or variety genetically varies in susceptibility and resistance to turfgrass diseases. A starter fertilizer high in phosphorous should be incorporated as the ground is being prepared for seeding. Seeding equipment which is designed for use with a drag helps to incorporate the seed with the soil and being designed for use with a drag helps to incorporate the seed with the soil and pulverizes the surface. With this done, rolling is not necessary, which could leave adverse compaction effects if the soil texture is a clay classification.



Irrigation

The ultimate success of trying to grow quality turf which can withstand a sports turf's frequent abuse lies in having total control over irrigation practices. The water requirement for a newly seeded field would be light and frequent to promote germination. After establishment, deep infrequent irrigations promote deeper rooting, thus better wear. The soil texture will determine how quickly water infiltrates and how long the soil retains it. Playing on dry hard surfaces is very dangerous because the field is slick and the surface has bad effects on horse leg injuries.

A drought tolerant tall fescue field may not be wilting but irrigation should be applied to soften the surface for better and safer footing. Sandy fields which do not compact allow for rapid infiltration of water and better, safer footing. The irrigation systems available include underground automatic travelling systems, portable pipelines and hose systems. Depending on the club's budget and staff, the irrigation system and effectiveness varies. Sometimes water is not always available. A polo field demands a lot of irrigation water and the success or failure of growing quality athletic turf will depend on it.

Mowing

Frequent mowing of turfgrass is the best cultural program because it reduces stress on turf. The smaller amount of leaf blade removed per mowing the better for turfgrass. Reel mowers with scissor action are preferred over rotary or flail mowers. The height of cut depends on the turfgrass variety. Warm season grasses, when actively growing would be the closest mowed. Cool season grasses would be mowed higher, Kentucky bluegrass 1" - 1½", turf type tall fescue 1½" - 2". The higher you can leave the height of cut, the more drought and wear tolerance will be observed. Professional players are concerned with ball roll speed and how the ball lies for better hitting. Divoted fields can seriously interfere with play. It is important that reels and bedknives be sharp and well adjusted. If kept properly adjusted and maintained, the sharpening life will be prolonged.

Fertilization and Renovation

Soil testing should be done to monitor phosphorous and potassium levels, but this can be performed every two or three years. The soil texture is important when designing a fertility program because heavy clay soils retain nutrients better than sandy soils. Turfgrass requires nitrogen (N), phosphorous (P) and potassium (K) in the greatest amounts of all nutrients. The ratio is roughly 4N - 1P - 2K. In maintaining sports turf, fertilizing is a very important tool to help recuperate from wear and injury. Quality nutrient sources, regardless of liquid or dry formulations, should be used. Supplementary NPK with iron and sulfur can improve turfgrass quality but minor elements such as zinc, boron, copper and others usually do not need to be added. This may not be true on a pure sand base field which does not have the ability to retain nutrients as they leach out of the root zone rapidly. Consulting with turfgrass specialists who know your area and soil types can save clubs money on nutrients not required or needed.

Overseeding sports fields is one of the best cultural practices to restore worn out or damaged turf. Making a mixture of seed, soil and sand to fill in divots after matches improves playability and establishes new plants to quickly fill in for future play. Seed is relatively cheap and although it may not be up by the time the field is played again, it is in place and will establish itself even if it is moved again by a turning hoof. A well overseeded field will recuperate quickly, especially when given a short rest which may be due to scheduling or prolonged bad weather. Waiting until the season is over to reseed usually delivers poor turf quality for season end play and drastic renovation procedures may be needed to insure quality turf for the next polo season.

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