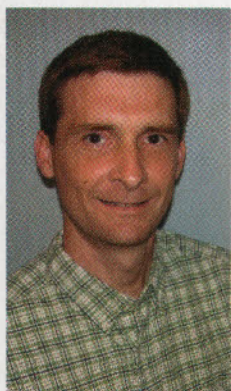


Management plan for synthetics

We need a management plan for synthetic turf soccer field. Can you outline the basic equipment needs and schedules?
North Carolina



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I would not consider myself to be an expert on managing synthetic turfgrass having spent my career concentrating on activities related to natural grass surfaces. But I have completed several years of research on selected synthetic turf surfaces and have participated in numerous discussions with athletic field managers that manage synthetic surfaces. This management plan will reflect experiences I have gleaned from other sports turf managers and from resources prepared by the Sports Turf Managers Association and the American Sports Builders Association.

The management plan begins following the professional installation of an outdoor modern synthetic infill turf and will not consider cost associated with either the installation or management. The comments will be directed at the management process and suggested equipment needed to accomplish the management goals of maintaining a safe, high-performance surface for soccer.

In several respects the management of a synthetic surface will be influenced by the same factors that can influence a natural surface. These factors may include the amount of use and level of play, weather conditions, budget, and labor. In addition, some manufacturers may have their own suggested management practices unique for their synthetic product. These should be considered when purchasing a synthetic product since adherence to suggested practices may impact product and/or installation warranties.

The primary cultural practice for a synthetic surface is grooming. To maintain a uniform surface with an infill system the field will need to be swept and dragged regularly. Depending on use, this may be required once a week to once a month. It is important to follow manufacturer's recommendation on grooming because it can cause excessive wear and inappropriate grooming may void your warranty. Equipment needed include something to groom the surface, usually a nylon-bristle bush, and a drag to stand fiber up and to distribute the crumb rubber. These are available that can be pulled behind utility carts.

Infill material will also need to be added on an annual basis. A field will need 1 to 7 tons of rubber added yearly. Note it takes about 20 tons of crumb rubber to get ¼ inch. Topdressing equipment will be necessary in the reapplication of crumb rubber. Vacuums and leaf blowers can be helpful to remove some debris (e.g., sunflower seeds), but in many cases, debris may need to be removed by hand since these implements may also remove/move infill. A field magnet should also be routinely used to remove broken spikes or other metallic contaminants.

The most common post-installation service needed is due to seam failure. Someone on the staff should be trained to troubleshoot seam problems and be capable of making minor repairs.

Seam failures not only can worsen quickly with use, they can also result in athlete injuries so timely repair is essential. Special adhesives and application equipment as well as a sewing kit will be necessary. If lines are not permanently sewn into the field, markings will need to be painted. Ancillary lines outside the field are most often applied with painted. With an outdoor field, the field the lines may need to be painted several times a year, depending on the amount of use.

Quick couplers should be available at the field's perimeter to wash off substances and/or to prevent stains. In addition, watering helps settle the infill and can increase consistency of ball roll and bounce. Timely pressure washing may be beneficial to remove some unwanted fluids or contaminants. Since the rubber holds heat, most liquids dry very quickly. Removing them before they dry is ideal, so post-use inspection is optimum. In some cases special solvents and cleaners may be necessary to remove hard-to-remove stains. Chewing gum removal is one particular time consuming process. In addition, care must be taken to prevent burn damage from fireworks and cigarettes.

There will be a need for spraying equipment. In at least the first year, anti-static materials will be needed to reduce rubber movement due to "static cling." Applications may be needed once to twice per month the first few months, then at reduced intervals afterwards.

While it is still debated, many field managers strongly suggest that the field be treated with anti-microbial products to remove bacterial growth. Natural fields contain billions of beneficial organisms to break down contaminants such as blood, vomit, urine, sweat, spit, and animal droppings. Since these natural beneficial are not in synthetic fields, the fields will require cleaning and/or disinfecting. Field managers are spraying disinfectants weekly to monthly.

With an outside field there is a strong possibility that wind-blown seeds will result in some on-field weed growth. Hand pulling may be effective, but in some cases a post-emergence weed herbicide (not oil-based) may be necessary. Glyphosate works well as a non-selective product without causing staining. In addition, during periods of high rainfall, high humidity, and low solar radiation, moss, mold, and algae can become established on a synthetic surface. It is most common in the less used areas of a field. Appropriate sprays may be needed to prevent rapid spread. Application of wetting agents has also been shown to improve water movement through the synthetic profile. The surface should be evaluated for hydrophobicity every 6 to 8 weeks and sprayed as appropriate.

Part of the regular management of a synthetic surface should include testing and evaluation. Clegg impact testing for hardness, pile fiber loss, shock absorbency, drainage, and seam and inlay integrity should be regularly evaluated to ensure the safety and integrity of the field. ■