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"We can do your project or coach you through it"

Baseball / Softball Field Guidelines

The following steps outline a maintenance routine that, if followed, will provide the safest, most playable sports field for athletes. This short routine will keep fields manageable and will help eliminate the struggles of field maintenance. A little dedication is all it takes to significantly improve the condition of a sports field.

The Skinned Infield

Maintenance should be performed immediately following field use, leaving it in good shape for the next day. Your field should be in the same shape for practice as for games. Inconsistencies can lead to errors and you lose the home field advantage.

- **Water the infield.** Water is important to skinned areas, to keep the infield soft and prevent wind erosion. A moist infield is more playable and easier to maintain. **HINT:** Water in morning, depending on weather, before games, provide enough time for partial dry down. For deep watering, try soaking fields right after the last use of the day for adequate dry down.
- **Drag.** An infield should be dragged daily to keep the skinned playing surface loose, level, and consistent. There is no one way to drag an infield, but there are key rules to follow.
    1) It is important to drag the field slowly, dragging the field quickly can cause loss of materials as well as an uneven playing surface. Begin by dragging around the perimeter of the skinned area before starting the dragging pattern. Is important to leave a 6" buffer between the drag and edge of the turf to prevent materials from building up at the edge of the turf (lip). Use a rake or a narrow hand drag on the 6" buffer.
    2) Alternate starting and stopping points every day to prevent creating low areas on the field that result in puddles. Spread the small pile of material that has accumulated on the drag evenly with a rake.
    3) Always remove the bases prior to dragging the skinned infield.

    Nail Dragging: A nail drag should be used whenever the skinned infield becomes compacted and is playing hard. It keeps the top ¼"to ½" loose and pliable. Not only does it make the infield safer by relieving compaction, it also makes it easier to maintain. Weight should not be needed on the nail drag unless the field is severely compacted. Never "deeply" nail drag or "till" a topdressed infield or you will incorporate the topdressing into the soil. **HINT:** Moisten before nail dragging, the skinned infield should be damp. Never nail drag deeper than ½".

    Mat Dragging: Mat dragging will smooth the playing surface. The skinned infield should be mat dragged daily, and also following nail dragging. If the skinned infield is playing soft, water it and mat drag it to help firm it up. A mat drag with a rigid leveling bar out front helps fill the low spots and make the field level. On fields with grass infield surfaces, use a rake/broom or a narrow hand mat drag to drag the baselines. Baseline dragging should be done lengthwise, not side- to- side, which will push loose material into the turf.
- **Sweep Infield Edges.** Sweeping the infield edges (also around the mound, home plate dish, and baselines on grass infields) will prevent materials from building-up on the edges of the turf and causing a "lip" to form. Use a broom or rake and sweep all loose materials lying on the turf back onto the skinned infield surface. Rake off any grass swept onto the infield with a rake. If more than one person does this task it should not take more than a few minutes. Suggest sweeping the edges at least weekly during the playing season.
- **Edge the Infield Turf.** Not only is a good clean edge important in maintaining baselines and preventing "lip" buildup, it also makes your field look good. Edging can be done with a hand edger, gas powered edger, or a spade. Once this is done, maintaining the edge by sweeping is easy.
- **Infield Grass/Weed Control.** It is important to control the grass and weeds that can grow in the skinned infield to maintain a smooth, level, and safe playing surface. Can be performed by mechanical control, or with a pre- or post-emergent herbicide application.

The Pitcher's Mound and Batter's Box

Because of the abuse these areas take, they must be repaired everyday. Again these activities should be performed immediately following field use, leaving these areas in good shape for the next day.

- **Mound Repair.** Because of the abuse a pitcher's mound takes, it must be repaired everyday. This simple process should only take a few minutes at the end of the day. Performing it daily will prevent having to perform major maintenance at a later time, as well as providing a safe and playable pitcher's mound.

The Pitcher's Mound and Batter's Box (cont.)

- **Mound Repair (cont.)**
    1) Begin by sweeping dry, loose materials off areas and remove from the mound (don't sweep into the grass).
    2) Lightly loosen the worn areas in preparation to add new packing clay.
    3) Water the loosened areas lightly and add packing clay to level.
    4) Tamp new materials until firm.
    5) Once firm, lightly moisten these areas again.
    6) Use a rake to pull dry material over the wet material.
    7) Lightly rake, moisten mound, and cover with a tarp.

The slope of the pitcher's mound and levelness of the pitcher's mound table should be checked at least every 2 – 4 weeks during the playing season. A slope gauge will be needed to correct the slope of the mound, and a template is needed to level the table. Use the same materials as in mound repair to repair the table and slope.

- **Batter's Box and Catcher's Box Repair.** The batter's box and the catcher's box are heavy wear areas, and must be repaired daily. These areas must remain firm. To fix the holes, follow the same steps as those to repair the pitcher's mound. And remember, the entire batter's box must be firm and level when the repair is complete. Cover the batter's box and catcher's box (the dish) with a tarp.

The Turf Area

There are a couple of key steps you can take to minimize turf damage:

1) Use fields as little as possible when wet.
2) Rotate practice areas.
3) Allow turf to recover in spring before starting practice on it.

Adhering to the following maintenance guidelines will help ensure a healthy, safe, aesthetically pleasing playing field. (Refer to the Odeys **"Athletic Turf Maintenance Practices"** packet for a more complete description of these maintenance practices)

- **Mowing.** Turf surfaces should be mowed as needed, not mowed by a set pattern of number of days. Grass will grow at different rates during different times of the year, and mowing frequency should be adjusted accordingly. There are a few guidelines to follow when mowing:
    1) Never cut more than 1/3 of the grass blade in one cutting.
    2) Always mow with sharp mower blades.
    3) Alternate mowing patterns every time turf is mowed.
    4) Try to avoid mowing when soil is very wet to avoid compaction and tire rutting.

- **Over-seeding / Sodding.** Is important to maintain an aggressive over-seeding / sodding program to worn turf areas to help prevent these areas from being completely worn out.

- **Fertility.** Certain nutrients are required to maintain a healthy, vigorous, and safe athletic turf surface. Nitrogen is the most important nutrient required by turf. It is recommended that for bluegrass and ryegrass fields receive 5 – 6 pounds of nitrogen per 1,0000 square feet annually. 70% of nitrogen should be applied in the fall, with the late fall application being perhaps the most critical time to apply nitrogen. For increased vigor and wear tolerance, potassium can be applied at a 1:1 ratio with nitrogen.

- **Aeration and Topdressing.** Soil compaction is one of the most common causes of weak turf on athletic fields. At minimum, athletic fields should be aerated at least twice a year, once in late-spring and once in late-summer. Additional aeration during the playing season, especially in heavy wear areas, will be of additional benefit to a healthy turf area. Topdressing following aerification can help improve the soil makeup as well as help level a playing surface.

- **Irrigation.** In general, athletic turf should be watered as needed, when the turf begins to show signs of stress. Deep, infrequent watering is preferred if the soil makeup of the field permits it. For closely mowed fields, or fields with poor drainage characteristics, more frequent shallower watering, may be required. Most athletic fields in this climate will require 1" to 1-1/2" of water per week. After practice or a game, especially under high heat conditions, a light watering will help reduce the stress to the turf.

- **Weed / Insect / Disease Stresses.** Is important to continuously monitor stresses placed on the turf by these pests, and take corrective action as needed.

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The Warning Track

The warning track receives much of the same maintenance as the skinned infield but on a less frequent basis.

- **Dragging.** Dragging should be performed at least once a month during the playing season. Use a nail drag to loosen the surface and then a mat drag for final smoothing.

- **Grass / Weed Control.** Can be performed by mechanical weeding, or by pre-emergent or post-emergent herbicide applications.

- **Edging.** To look their best, warning tracks should be edged at least twice a year. Powered edgers, string trimmers, or hand edgers can be used

General Field Guidelines

- **Communication.** Is crucial that the athletic staff and the grounds staff communicate frequently.
  The athletic staff should communicate field use schedules (games, events, practices, etc.) as early as possible to the grounds department. Should also keep the grounds department informed as to field conditions needing attention (too wet, too dry, wet spots, hazardous areas, maintenance issues, etc.)
  The grounds staff should communicate any changes in field conditions, areas that are under repair and need to be avoided, applications of fertilizers or pesticides that have been made, when the field is showing signs of overuse and needs a rest, and changes necessary to the field use schedule.
  It is important that all parties associated with the fields use, (athletic directors, coaches, administrators, grounds personnel, band directors, and players), all work to the common goal of maintaining a safe, healthy, and aesthetically pleasing athletic playing surface.

- **Budgeting.** Since there tends to be less money in budgets these days, is crucial to use it wisely. It is important to make a list of priorities, determine needs, and how to best utilize the budget. Often the least expensive solution is not the one that provides long- term ongoing benefits, and can end up costing more in the long run.

- **Walk the Field.** This is the single most important step in a maintenance program when it comes to the safety of athletes. Because of this, it is essential to be aware of such hazards and minimize the risk of injury to players.
  Walk the field before every practice or game looking for:
  1) Large stones in the skinned area, pitcher's mound, batter's box, and the baselines.
  2) Sprinkler heads that have not retracted or need to be adjusted.
  4) Burrows, large divots, or other holes in the turf.
  5) Damaged fencing.
  6) Loose base anchors.
  7) After rain, mark any areas of standing water with flags, to repair when the field has dried.

  Refer to Odeys **"Athletic Field Safety Checklist"** for a more complete listing.

- **Practice Rotation.** Rotate practice areas on the field daily so traffic pressure and wear is dispersed across the field.
  It is obviously easiest to go to the closest area of the field daily for practice, but is crucial that this pressure is dispersed over the entire field to reduce wear to any one area. Is much easier and less expensive to repair a stressed area than a completely worn out area of a field.
  Use batting practice turf/lip protective covers around the dish, and a portable mound for batting practice to reduce stress to these high wear areas.

- **Equipment Removal.** Remove all practice equipment from the playing field area daily so as to not interfere with the irrigation system, not damaging the playing surface by equipment sitting in one spot, and help ensure practice equipment gets rotated around the field.

- **Waste.** Discard all trash into waste receptacles. Ensure that adequate waste receptacles are available and are emptied on a regular basis.

- **Involvement.** A key to success is getting others involved in maintaining the field. Assign each position player certain responsibilities (mound repair, dish repair, dragging, etc.) that they must accomplish everyday. Give parents incentives to participate in the field's maintenance. Be creative. The more people involved, the more work will get done to the field. Remember, "The field you put to bed in the fall, is the field you will wake up to in the spring". Plan a fall "field day", with coaches, players, and parents, to put the field to rest for the year and reduce the maintenance needed in the spring.

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