

# MANAGEMENT CALENDAR: WARM-SEASON ATHLETIC FIELDS

Quality turf can make athletic fields safer for young athletes. Field managers should follow this general guide for safer turf.

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**A**thletic field managers should periodically evaluate their field management programs and set up programs for the entire year. This allows the professional to plan ahead for equipment and material purchasing, and to determine seasonal labor needs.

What follows, provided for planning purposes, is a generalized management scheme for Bermudagrass athletic fields. Specific dates, intensity and frequency of practices will vary with every geographic location. This calendar is only intended as a general guide for programming.

## January-April

If the field is infested with winter annual weeds, is completely dormant and is not covered with straw, then weeds can be controlled by spraying with a non-selective herbicide such as glyphosate. Follow label directions closely.

Collect soil test samples from the field, sampling from several areas to a

Mention of specific products in this sample program does not imply exclusive endorsement of any one product. It was done only to simplify the program for educational purposes.

depth of three inches. Submit the samples to a reputable laboratory for analysis.

Keep traffic off field if at all possible to minimize damage to field.

If field has been protected with a straw mulch, remove the mulch about one week prior to the 50 percent frost-free date in your area. If the field was covered with a plastic tarp all winter, the tarp will periodically need to be

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*Keep traffic off the field if at all possible to minimize damage to the field.*

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removed for mowing and replaced to prevent frost damage. Plastic tarps should not be permanently removed until the probability of frost is zero.

Fill in low areas with good topsoil to improve surface drainage. If areas are extremely low, cut sod out, fill area and re-install sod.

If you desire to control summer annual weeds with pre-emergence herbicides, apply a pre-emergent for

summer annual weeds such as crabgrass, goosegrass or foxtail at the appropriate time in your area.

Determine amounts of winterkill and decide whether sodding, sprigging or plugging will be adequate for repair. Small plugs can be brought inside and kept in sunlight to give an early indication of the amount of winter damage the field has suffered. If damage has been minimal, plugging will suffice. Begin repair as soon as Bermuda has fully greened.

Hybrid Bermudas will need to be repaired with sprigs. Seven to 10 bushels per 1000 sq. ft. will suffice. Common Bermudagrass fields can be seeded at 1 to 2 lbs. per 1000 sq. ft.

Fields that have been previously treated with pre-emergence herbicides cannot be repaired with Bermudagrass seed unless the area to be seeded is treated with activated charcoal (5 to 7 lbs. per 1000 sq. ft.). Areas to be sprigged also can be negatively affected by recently-applied pre-emergence herbicides. Minimize this possibility by applying activated charcoal and tilling soil prior to sprig planting.

Initial fertilization should begin about two weeks after Bermuda has greened up, applying 40 to 60 lbs. ni-

trogen per acre.

### May-August

Begin mowing with a reel mower as soon as the Bermuda gets  $\frac{1}{3}$  higher than the intended mowing height. Set mower slightly lower than the normal mowing height the first time you mow the field to remove debris. Maintain the Bermudagrass at mowing heights between  $\frac{1}{2}$  and 1 inch, depending on use being made of the field, smoothness, budget, etc. Collect clippings only if they are excessive.

Core aerify field every 30 to 45 days with open spoon  $\frac{3}{4}$ -inch diameter tine aerifier once field is well rooted. Make

two passes over field each time. Drag field to break and incorporate aerifier cores.

Re-plug damaged areas that are not healing rapidly enough.

After field greens up, and at least 30 days after the first application noted above, apply 40 to 60 lbs. nitrogen per acre to the field on 30 to 45 day intervals. Sandy fields prone to leaching will require higher levels of nitrogen. Apply lime, phosphorus and potassium as indicated necessary by the soil test.

Fields under high levels of maintenance will benefit from periodic vertical mowing or slicing to increase

tiller density.

Irrigate as necessary, watering infrequently, but heavily when you do.

If goosegrass and crabgrass begin to invade the turf, use post-emergence herbicides such as disodium methane arsonate (DSMA), monosodium methane arsonate (MSMA), asulam or metribuzin. Follow label directions closely.

If broadleaf weeds invade turf, spray with broadleaf herbicides such as 2,4-D, dichlorprop, dicamba, mecoprop, triclopyr and other labeled materials.

On high maintenance fields periodic top dressing with a suitable ma-

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## WARM-SEASON ATHLETIC FIELD MANAGEMENT

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
<b>AERATE</b>					Core aerify every 30 to 45 days with open spoon $\frac{3}{4}$ -inch diameter tine aerifier. Make two passes each time. Drag field to break up cores.				Core aerate 30 days before overseeding.			
<b>FERTILIZE</b>	Begin fertilizing about two weeks after Bermuda has greened up. Apply 40-60 lbs N/acre.				At least 30 days after first application, apply 40 to 60 lbs. N/acre on 30 to 45 day intervals. Apply other elements as indicated by soil test.				When Bermudagrass growth begins to slow, apply the equivalent of 60 lb./acre of potassium oxide to improve winter hardiness.			
<b>IRRIGATE</b>					Irrigate as necessary watering infrequently, but heavily.							
<b>MOW</b>					Mow with reel mower when Bermuda gets $\frac{1}{3}$ higher than intended mowing height. Vertical mowing or slicing should be done periodically.				As growth rate slows, raise mowing height to $1\frac{1}{2}$ inches.			
<b>REPAIR/RENOVATE</b>	Fill in low areas with topsoil to improve surface drainage.				Re-plug areas which are not healing rapidly. Periodically topdress, followed by dragging.							Cover field for the winter. Keep traffic off the field.
<b>SEED/SOD</b>	Determine the amount of winter kill and decide whether to sod, sprig or plug. Begin as soon as Bermuda has greened.								Overseeding may be desirable. Core aerate or vertical mow 30 days prior to overseeding. Top dress.			
<b>SOIL</b>	Collect soil samples and send them to a lab for analysis.											
<b>WEED CONTROL</b>	If field is dormant and not covered by straw, use a non-selective herbicide for annual winter weeds. Apply pre-emergence weed control at proper time for your area.				If goosegrass and crabgrass invade turf, use post-emergence herbicide. If broadleaf weeds invade turf, use a broadleaf herbicide.							

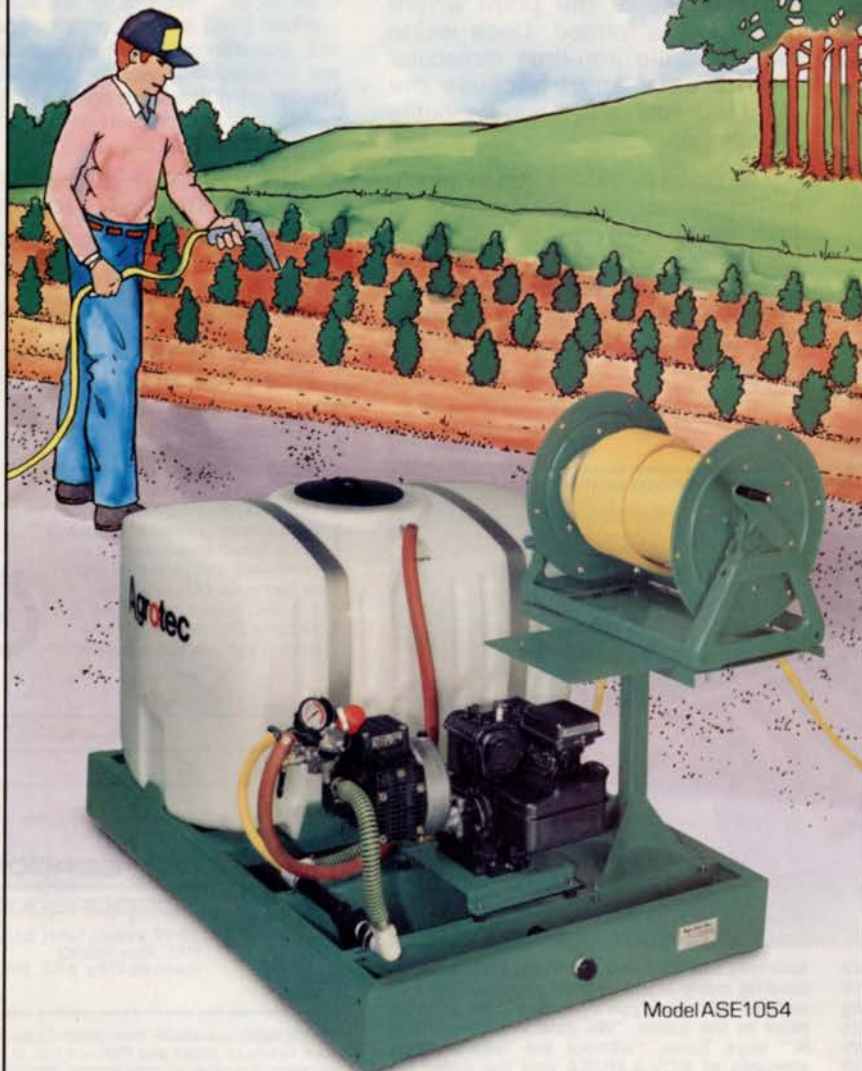
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terial, followed by dragging, will smooth the surface and improve the field's playability.

## September-November

Fall overseeding of some fields with perennial ryegrass may be desirable. Core aeration and/or vertical mowing 30 days prior to overseeding may be beneficial. Top dressing after overseeding encourages seed-soil contact. Late-season vertical mowing of Bermudagrass that is not inherently winterhardy, will likely reduce its chances of winter survival and should not be done in conjunction with overseeding.

When Bermudagrass growth begins to slow at the end of summer, apply the equivalent of 60 lbs./acre of potassium oxide (K<sub>2</sub>O) from either potassium chloride (0-0-60) or potassium sulfate (0-0-54) to improve winter hardiness. In areas where winter hardiness is a concern, stop or severely reduce nitrogen applications.

As the Bermudagrass growth rate slows, raise the mowing height to 1½ inches to improve insulative effect and reduce probability of winterkill.

Plastic tarps can be used during the season to protect the field from excessive rainfall and minimize traffic damage resulting from the excessive moisture.

## December

In areas where winter survival is a serious concern, after the last game, cover field with 4 to 6 inches of clean straw or a clear plastic, vented polyethylene 4-mil tarp or similar cover to maximize winter protection and reduce chances of winterkill. If straw is used, you will need 250 to 400 bales of straw. Straw can be secured with netting, or string and stakes to keep it from blowing.

Keep traffic off of field during winter if possible. **LM**

## USEFUL EQUIVALENTS

Football field area: 360' x 160' = 57,600 sq. ft. = 1.3 acres

Area between hash marks: 300' x 54' = 16,200 sq. ft. = 0.37 acres

Area in 440 yard oval: 100,188 sq. ft. = 2.3 acres

1 gallon = 3.785 liters = 128 fluid ounces = 4 quarts

1 ounce = 29.57 milliliters

1 quart = 946.3 milliliters

1 fluid ounce = 2 tablespoons = 6 teaspoons

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