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Safest Field
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the use to which they are subjected. It is
still possible, however, to produce an
acceptable playing surface by adjusting
maintenance practices to coincide with
existing inferior soil conditions and turf-
grass cover. Obviously, the degree of
aesthetics and turfgrass health suffers,
which has a direct effect on expectations
for that area, especially if the field is
scheduled with activity that is beyond its
capability.

The following list of turfgrass main-
tenance items are what I consider to be
the most important in descending order.
Obviously, there may be some, perhaps
even many, who would disagree or dispute
my priorities; however, they are based on
developing an acceptable, safe playing sur-
face regardless of the budget available. The
list assumes that the rootzone and turf-
grass species and variety are already in
place.

1. Irrigation
Even if the playing surface is com-
prised of undesirable weeds and grasses,
if it's green and thick it can provide
acceptable play. Irrigation is the best
insurance for keeping desirable turf-
grasses alive and healthy, preventing
the encroachment of weeds and other
undesirable grasses. Prudent management
of the irrigation system will promote the
most effective and efficient use of water
in maintaining good playing conditions.

2. Mowing
Having the proper mowing equipment
and mowing at the proper height and
in the proper manner will go a long way
toward producing a good playing sur-
face. Proper mowing techniques will
enhance the surface safety, playability and
aesthetics.

3. Fertilization
To get the most out of what you have
requires a proper diet. With heavy-duty
activity, the turfgrass must be given a
chance to grow and repair itself, and a fer-
tility program, no matter how modest, will
help promote a healthier plant. Proper
timing based on the physiological growth
characteristics of the plant is very im-
portant. More money available in the budget
gives more options and opportunity for long-
term extended growth.

4. Aeration
Regardless of the soil type there eventu-
ally comes a need to open up the soil sur-
face and upper portion of the rootzone area
to relieve soil compaction. This allows water
and oxygen to flow more freely within the
soil profile, creating a better growing
environment and better playing conditions.

5. Topdressing
Applying a small amount of sand/soil
mix to the turfgrass surface helps to
level the field while creating a growing
medium to assist the turfgrass in its
growth expansion. It also helps to decrease
excessive thatch and provide a firm,
resilient surface for play.

6. Pest Control
No turfgrass area is immune from
weeds, insects or diseases, and periodic
control measures are usually necessary.
Knowing the conditions that invite pests
into the turfgrass environment is very valu-
able information. The timing and type of
control is of equal value. A local Extens-
sion Service or university is a valuable
resource for help.

7. Dethatching
Thatch in turfgrass areas is created
when the rate of dead plant material
(rooths, rhizomes, stolons and stems)
exceeds the ability of the biological com-
community of the soil to decompose it. Ex-
cessive thatch inhibits water and nutrients
from entering the rootzone. Excessive
thatch can also create an environment for
the proliferation of undesirable microbial
activity that can present disease and
insect problems. And, excessive thatch can
affect the playability of the field. Players
on heavily used sports fields can perform
their own dethatching just by the
amount of activity.

8. Overseeding
Overseeding is one of the best practices
available for thickening existing tur-
grass stands or changing a tur-
grass stand from one species to another, such
as the case with dormant warm season
grasses in the winter being converted to
a cool season species. The success of an
overseeding program involves proper
seeded preparations, proper seeding
application methods and rates, proper mois-
ture levels during the establishment
period, proper nutritional supplements and
an adequate non-use period for the field
in order for the turfgrass to become well
established.

For programs with constant use on the
playing fields, the success of overseeding
will be extremely limited. Not only is
overseeding expensive in terms of time and
money, but to be truly successful requires
the field to be shut down for a period of
time for establishment to take place,
something most high-use playing fields
do not have the luxury of doing. For this
reason I've chosen to put overseeding way
down on the list of priorities. Obvi-
ously, if adequate downtime can be
afforded, then overseeding would move way
up on the list of priorities; however, with
daily field activity, overseeding is not
much of an option for creating a tur-
grass stand.

9. Sodding
The quickest way to create a tur-
grass stand or to repair worn-out turfgrass
is by sodding. Just as with seeding, soil
preparation is a key element in the suc-
cess rate of sodding. Providing the proper
soil texture, structure, nutrient avail-
ability and moisture will greatly enhance
the establishment, health and vigor of sod.

It's also important to remember that
the sod's soil should be of similar texture
to that of the prepared soil to avoid lay-
ering, which drastically affects water
infiltration and percolation. Keep in
mind, also, that newly sodded areas
require very different irrigation regimes
than those of established sod for at least
two to three weeks under adequate
growing conditions.

Because of this, sodding worn-out
areas on a field will require a greater
amount of effort and time in selective irri-
igation so as not to over-irrigate the
existing turfgrass areas. This is also the
most expensive way of providing a tur-
grass stand, initially. However, when
considering the overall costs of sodding
versus seeding, turf managers will find
that they pretty much even out when
both become established.

Summary
The primary purpose of a sports turf
manager is to provide a safe and aesthetic
playing surface that offers the most
optimum playing conditions possible.
Obviously, the more time and money
that is available, the more options
will exist for providing better conditions.

What I've attempted to present here
is a list of priorities that one can pick and
choose from depending on his or her
budget and represents only a set of guide-
lines toward maximizing the budget
dollar. Each turf manager is unique with
varying degrees of expectations for playing
field conditions, but for the safety of the
players and the health of the turfgrass,
this list may be a useful tool in developing
your management strategies for building
the best field on any budget.

Steve Wightman is stadium turf
manager for San Diego's Jack Murphy
Stadium.
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