

## Shooting from page 22

Keep a log of when, where and how each of your pictures was taken. This will give you a guide as to where your mistakes are occurring.

Most photo store owners can give you pointers on how to improve your photos—it seems they live to give advice.

Unfortunately, an automatic camera doesn't do everything automatically.

The plague of under-exposed (too dark) photos haunts many beginners. Naturally, when it says the camera has automatic exposure, we assume it knows what it's doing. Wrong assumption.

The electronic eye in automatic cameras takes a reading on the overall brightness of a scene to determine the best exposure. If you have a lake or a sand bunker in the picture, your photo will invariably turn out too dark.

Why? The extra light from the bright sand tricks the camera into thinking it's

photographing a much brighter scene than it really is.

This problem can be overcome by thinking about the shot you're taking. If the picture contains something particularly bright, set the camera's manual override to purposely over-expose the picture by one f-stop.

Blurred pictures can be caused by improper focus settings. But more often they stem from moving the camera as you snap the shutter. Never take a hand-held photo at a camera speed slower than 1/125th of a second. With practice, you might be able to take pictures at 1/60th or even 1/30th of a second, but most beginners should stay above 1/125th.

**Shadows and colors**—The camera captures images in two dimensions. It can't discern a dip, which is a third dimensional feature. So how do you shoot the scene so the dip will show up?

The trick is using shadows. Take the

picture just after sunrise when the sun is low in the sky. That will cast a shadow along the dip and make it look quite pronounced on film.

Remember, too, that film is tremendously sensitive to a wide spectrum of colors. Unfortunately, film is not particularly sensitive to varying shades of green. To capture patterns of green hues in a picture, you have to get a bit creative. Try waiting until there's dew or frost on the grass; sometimes different grasses present distinctive dew patterns. You might also try different sun angles at different times of the day.

Most important, never take only one shot of something important. Film is cheap. But make sure you vary the camera setting each time.

—The author is research director for Jacklin Seed Co. He maintains a working collection of about 10,000 turf slides.

# Optimizing turf health for football season

by Ken Mrock

■ You've got to be in great shape to stand up to a bear; in excellent shape to stand up to a team of them—especially when those Bears wear football uniforms and play for Chicago. So establishing and maintaining turf fields healthy enough to take all that punishment is a year-long task.

These are the procedures I follow to establish and maintain safe, playable turf. Working closely with me is John Berta, assistant groundskeeper at Halas Hall, the Bears' practice facility on the Lake Forest campus.

**Spring**—We start our spring program by pre-germinating a 50/50 mix of bluegrass and perennial ryegrass seed in 55-gallon drums. After drying, to make application easier, the seed is added to a small amount of our topdressing mix (calcified clay, shredded peat, sand and native soil).

As early in the spring as possible, we completely core aerify our fields in two directions with either a Ryan Reno-vaire or a Ryan G-A-30. This aeration relieves compaction and produces a suitable seed bed for our pre-germinated seed mix.

We allow the cores to dry, then break

them up with a woven steel drag mat to provide topdressing across the field. The best topdressing is the existing soil structure. Since we have virtually no thatch on our fields, debris removal is unnecessary.

After the initial dragging, we broadcast the pre-germinated seed/topdressing mix into the sparse areas.

Next we use the slit-seeder and sow an

ungerminated 50/50 bluegrass/ryegrass mix in two directions, forming a diagonal (diamond) pattern across the field.

Then we apply a starter fertilizer high in nitrogen and phosphorus (19-26-5). The nitrogen stimulates the existing turfgrass and the high phosphorus promotes seed development.

Next, we apply a granular pythium control to safeguard against seed pythium disease (damping off) and give the seed a better chance for establishment.

We then spot topdress, lightly covering those areas that have been desiccated over the winter. We cover the fields with Evergreen sports turf covers to speed seed



Ken Mrock, right, and John Berta use an Evergreen sports turf cover for faster seed germination. Photo by Dean Pope



# Grid maintenance calendar

## September

- ✓ Make a soil composition test
- ✓ Test soil pH
- ✓ Purchase fertilizer based on test results

## September-November

- ✓ Before game:
  - line the field
  - mow 2-3 times per week, including morning of game
  - water thoroughly in beginning of game week; sprinkle during week
- ✓ After game:
  - sweep divots; fill holes with pre-germinated seed/soil mix

## October

- ✓ Fertilize at full rate
- ✓ Begin seeding thin spots with rye grass before and after each game

## Post-season

- ✓ Mow the field
- ✓ Aerify
- ✓ Dethatch (if needed)
- ✓ Spread soil amendments
- ✓ Drag field

- ✓ Fertilize
- ✓ Seed
- ✓ Pinspike
- ✓ Irrigate thoroughly

## Spring

- ✓ Mow when spring growth starts
- ✓ Establish a mowing program
- ✓ Apply fungicide (if needed)
- ✓ Water
- ✓ Apply herbicide

## Late March-Early Fall

- ✓ Apply fertilizer at 1/2 rate

## Late May

- ✓ Apply fertilizer high in potash at 1/2 rate

## May-July

- ✓ Slice monthly

## June-August

- ✓ Watch for insects and diseases

## Mid-August

- ✓ Core
- ✓ Fertilize at 1/2 rate
- ✓ Begin mowing pattern

Source: George Toma, NFL

germination and accelerate the established turfgrass out of dormancy. We irrigate when necessary. Once germination begins (in five days to two weeks), we monitor turf growth to determine proper mowing height. We cut off no more than one-third of the plant at a time. There have been instances, when we have mowed the turf, then recovered with the covers.

After about three weeks, the turf is suitable for play, but we like a longer cushion, if possible.

The next spring step is fertilization with IBDU, slow-release nitrogen, to promote a sustained growth. We use the 16-4-20 formula, which is also high in potassium, to give the turfgrass the hardness it

needs to withstand the constant pounding of play, and the drought and heat it will face in the upcoming summer.

We also apply a preventive insecticide treatment in the late spring. We use fungicides only on a curative basis, only if disease pressure is evident due to weather conditions such as high humidity or heat.

Herbicide applications are on an as-needed basis. We spot-spray broadleaf weeds, use mechanical removal or spot treatments of glyphosate for grassy weeds. When necessary, a mid-May application of dicamba is used for knotweed control.

**Summer**—Irrigation has been needed the last few years because of drought conditions here in the Midwest. Deep irriga-

tion penetrates throughout the soil structure, encouraging grass roots to follow it down, thus building stronger turf.

During dry weather, we irrigate twice a week, using three Rain Trains to cover the field. We mow as needed; sometimes daily, but normally every other day. We change the cutting pattern every time we mow. We aerify once more before the hot June days to relieve any compaction.

We again drag the plugs out. In conjunction with this, we usually spot-seed and fertilize.

During our hot summers, we basically mow and irrigate, applying fungicide occasionally, as needed.

In late July, if we have window of about three cool days (temperatures in the 70s to low 80s), we aerify again, then fertilize with IBDU (16-4-20), applying approximately 1 lb. N to 1 lb. K.

**Fall**—We continually keep one or two barrels of pre-germinated seed ready. The pre-germinated seed/topdressing mix is applied daily to any divots that are knocked out during play. About late August, we apply preventive insecticide to avoid grub problems.

On six-week intervals, we fertilize our fields with high potassium, IBDU fertilizer. We keep the fields mowed and irrigated. Every two to three weeks, we also aerify to keep compaction to a minimum. As the season winds into winter, a late fall fertilization is a must. The fertilizer stimulates deep root growth throughout the winter, strengthening the plants for the upcoming seasons.

In early spring, this fertilizer is present in the soil for the grass to use as soil temperatures start to climb.

It takes this season-long program to keep our turf in shape for those Bears.

—The author is chief groundskeeper for the Chicago Bears. Mrock is treasurer of the Sports Turf Managers Association.

## B&G'S NEW KP-4

Strap on the comfortable, lightweight KP-4 Knapsack Sprayer and enjoy the convenience and mobility it affords. Designed for a multitude of uses, the KP-4 is tough enough for all sprayable solutions.

Easy to use with the lever-operated high pressure continuous action pump. Only minimal effort is required to maintain effective spraying pressures. The generous 4 gal. high density polyethylene tank allows for an extended application period.

For more information about the KP-4 Knapsack Sprayer or to inquire about all your spraying needs, call 1-800-544-8811.

**B&G**<sup>®</sup>  
EQUIPMENT COMPANY  
P.O. BOX 130, PLUMSTEADVILLE, PA 18949



Chemical resistant and heavy duty construction features include:

- All soft parts, gaskets and seals, superior quality.
- Unit converts for right or left hand operation.
- High pressure piston pump up to 90 psi, 48 in. hose.
- Discharge valve with screen and lock-on clip.
- 18 in. angled extension with pin to cone spray pattern tip.



### OPTIONS

- Brass extensions.
- Fan spray pattern tips, brass and poly.

Circle No. 104 on Reader Inquiry Card