

With this schedule, the field doesn't have much time to grow grass. What do we do? Punt? Kneel down with the ball? No way! At fourth and one, we go for it!



Chicago Offers Challenges to Turf Maintenance

Ken Mrock manages the turf for the Chicago Bears with a year-round regimen of seeding, fertilizing, mowing and irrigating.

By Ken Mrock

I have to manage turf that takes one of the hardest beatings in sports turf. During the past nine years here, I've seen the demands on our turf increase dramatically. The players have become bigger and faster. The Chicago Bears' coaching staff and management advocate a year-round training regimen. This is tough because the Midwest has such a short growing season. Essentially, we have to grow grass when it doesn't want to grow.

This past season, we had five mini-camps, several twice-a-day practices in addition to the normal four practices per week. On top of this, the Bears share Soldier Field with the Lake Forest College football team for five home games.

Seeding in March

Starting at the end of March, we pre-germinate seed — a mixture of blue, rye and *Poa supina*. As soon as the field is workable, we will aerify with a Ryan GA-30 or Toro Greensaire. We try to bring up as many plugs per square foot as possible. We have found this speeds germination and establishes the growth of the plant a little lower in the turf surface, somewhat protecting the

plant when the players try to rip them out with their cleats.

After aerification, we allow the plugs to completely dry. We then broadcast the pre-germinated seed mix over the entire practice field and add another 7 to 8 lbs./1,000 square feet of dry-seed broadcast, mainly between the numbers.

Starter Fertilization is Key

Since we have no internal drainage and the practice field was constructed with Turface calcined clay, we have continued to apply Turface and our topdressing soil to the practice field. This process is done with a Turfco meter-matic topdresser. We apply this mix across the entire field, then lightly drag all the material in with a draft mat. The next step we take is to fertilize with a starter fertilizer. I prefer a 13-24-12. This formulation offers potassium nitrate for the established turf, quick-release nitrogen that works well in cool-soil conditions and phosphorous for seed germination and root establishment. Next, we apply pythium control and cover the entire field with a frost blanket.

April Mini-Camp and May Fertilization

Mini-camp begins in late April — three days of twice-a-day practices with

about 80 players. I call this our *opening day*—the coaches' first chance to see what the Bears look like. After this inauguration, the field is available to the team until January. With all the traffic on the field, daily maintenance is quite aggressive. Divots must be replaced after every practice. The ones that can't be "found" are replaced with a mixture of seed, topsoil and Turface. It's the same process that's done on tee boxes at golf courses.

In early May, the next fertilizer application is made in conjunction with a spot-herbicide treatment for broadleaf weeds. This time I use a 12-0-42 formula. This ratio helps toughen the grass plants for our next two mini-camps. I've experienced the benefits of 12-0-42 and highly recommend it. I've seen less disease, fewer clippings and a much more turgid turf stand. Our ballplayers have complimented me on the sturdiness of the turf.

The irrigation is done using a Kifco B-140 water reel. Watering is usually done well before dawn to allow the least amount of plant wetness in the evening. Under our normal late-spring and early-summer conditions, I like to irrigate about twice a week putting down 3/4 to 1 inch of water per application.

In the middle of June, an application of 12-0-42 is done about 1/2 to 1/3 rate. This

enhances what might have been depleted and strengthens the field for the last two mini-camps when the rookies arrive.

Around mid-July, the field gets a break from the rigorous practice schedule when the entire football operation moves to the University of Wisconsin at Platteville for four weeks. This time of year in Chicago is sometimes tough for seed development. But it's our only window. We completely aerify the turf in two diagonal directions, overseed, topdress and make another application of 12-0-42 at 1/2 rate. Fungicides and insecticides are part of our maintenance program, but are used sparingly. We also do another spot spraying with herbicide for broadleaf weeds, usually dicamba for knotweed and clover control.

August — The Toughest Stretch

As the team prepares for the season with training camp, August is the toughest stretch of our turf-management program. With the grind of twice-a-day

practices with 80 players, we mow daily, sometimes twice a day, to allow a light rolling. We maintain the turf at 1 3/8 to 1 5/8 inches with a Jacobsen Tri-King 84-inch reel type. This is a lightweight mower and allows us to pattern the turf in opposite directions between the 5-yard lines. The players like the close-cut turf. They play better on it.

As with golf courses, aesthetics are important at a football field. The Bears always have five to 10 TV outlets and 10 or so print-media outlets. We have to maintain game-ready conditions at all times. The proper ratio of potassium produces the excellent turf we need. We also topdress and pre-germinate seed daily.

Cold Weather Means a Shift

In September, temperatures fall and there is less sunlight. We shift our fertilization program to 18-3-18. Some of this application will release quickly, the rest will be stored for the crucial cold-weather weeks to come. When the nights get down to 35 degrees, we pull out the

frost blankets as needed. This raises the soil temperatures and kicks in the fertilizer — the turf stand is excellent. We also use our rain/snow field covers as needed, covering 140 by 65 yards in seven sections that zipper together to form one solid cover. This is important because, other than during a Bears practice or a college game, no rain or snow is allowed to accumulate on the practice field.

As the season progresses, we pump 4 million BTUs via kerosene-fired heaters under the tarps to keep the field from freezing. The only time the field is uncovered is for practice during November, December and (we hope!) January playoffs. The increased levels of potassium allow us to literally beat up this field — and it gets up for more. In mid-November, an application of 12-0-42 at full rate is made, which will take us through spring. Then the fun starts all over again. □

Ken Mrock is the grounds superintendent for the Chicago Bears.

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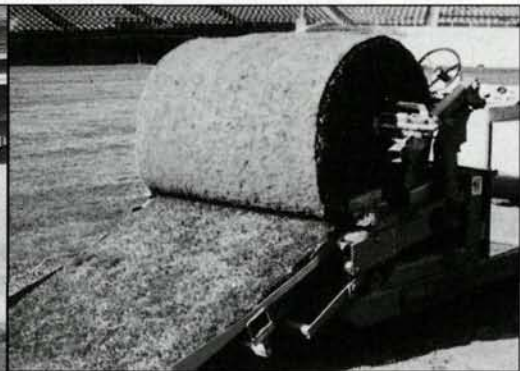


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