Chicago Bears Offer Challenges For Maintaining Sports Turf

By Ken Mrock

Chicago Bears Grounds Superintendent

As groundskeeper for the Chicago Bears, I have to manage turf that takes the hardest beating in sports turf. Over the past nine years here, I've seen demands on our turf increase dramatically. The players have become bigger and faster and the ball club advocates a year-round training regiment. 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 and several twice-a-day practices in addition to our normal four practices per week. On top of this, the Bears share their field with the Lake Forest College football team for five home games.

With this schedule the field doesn't have as much time to grow grass! So what do we do? Punt? Kneel down with the ball? No way!! We attack!! Fortunately, the Chicago Bears are in the forefront of getting better turf for their athletes.

Tackling the Bears' turf every season isn't easy. Along with Assistant Groundskeeper John Berta, I've put together an aggressive mix of seeding and fertilization together with a tight maintenance program to ensure Bears ballplayers have the best possible playing fields.

It all starts in March with seeding.

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 7-8 lbs./1,000 sq. ft. of dry seed broadcast, mainly between the numbers. This area is the most worn and the wear area has greatly expanded, out to the number, due to the short passing game or "West Coast Offense." This is where three or four receivers line up between the hash marks and numbers, cutting and spinning their way up the field. With the receivers, of course, come the defensive backs and linebackers defending against them. This puts six to eight players in that small area. The divoting and wear has increased substantially!

Starter Fertilization is key in late March.

Since we have no internal drainage and the practice field was constructed with Turface caloined clay, we have continued to apply Turface and our top dressing soil to the practice field. This process is done with a Turfco meter-matic top dresser. We apply this mix across the entire field, then lightly drag all material in with a draft mat. The next step we take is to fertilize with a starter fertilizer. I prefer Vicksburg Chemical's K-Power[™] 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. This allows us to bring up the soil temperature to speed up germination of seed and promote growth from existing turf with the K-Power.[™]

April's Mini-Camp increases maintenance.

Mini-camp hits 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 on the field 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. **Fertility steps up in May and June**.

In early May the next fertility application is made in conjunction with a spot herbicide treatment for broadleaf. This time I go the K-Power^M 12-0-42. This ratio helps toughen the grass plants for our next two mini-camps. I've experienced the benefits of 12-0-42 and swear by it. I've seen less disease perfication of field, fewer clippings and a much, much more turgid turf stand. Our ballplayers have complimented me on the sturdiness of the turf. Stiffer turf means they play better, similar to how it helps golfers make better shots. The quality of the turf must be the best possible.

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

Now that we're into the middle of June, an application of K-Power^m 12-0-42 is done at about 1/2 to 1/3 rate. This enhances what might have been depleted and strengthens the field for the last two mini-camps (rookie camp).

Practice break in July provides window for seeding.

Around mid-July we take a break in practice scheduling and the entire football operation moves to the University of Wisconsin at Platteville for roughly four weeks. This time of the year in Chicago is sometimes a tough time for seed development. But it's our only window. We completely aerify the turf in two directions diagonally, overseed, topdress and make another application of K-Power[™] 12-0-42 (Continued on Page 28)

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at 1/2 rate. Fungicides and insecticides are sparingly used in this part of our maintenance program. We also do another spot spraying with herbicide for broadleaf, usually dicamba for knotweed and clover control.

August-the toughest stretch.

As our team prepares for the upcoming 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 after every practice, sometimes twice a day, to allow a light rolling. We maintain the turf at 1 3/8'' to 1 5/8'' with a Jacobson Tri-King 84'' reel-type. This is a light-weight mower and allows us to pattern the turf five yards one direction and the next five in the opposite direction. The ballplayers like close-cut turf — they play better on it.

As with golf courses, aesthetics are



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important at a football field. The Bears always have five to 10 TV media outlets, and 10 or so print media outlets. We have to attain game conditions at all times! The proper ratio of potassium produces the excellent turf we need. We also topdress and pregerminate seed daily. And after every practice, we replace all divots, lightly roll the field and topdress in all scars or rips in the turf. The integrity of the surface is extremely important.

Cold weather means a shift in fertility program.



In September temperatures fall and there is less sunlight. We shift our fertility program to K-Power™ 18-3-18. Some of this application will release quickly; the rest will be stored for the critical cold weather weeks to come. When the nights begin to get down to 35º45ºF, we pull out the frost blankets as needed. This raises the soil temps and kicks in the fertilizer - the turf stand is excellent! We also use our rain/snow tarps as needed, covering 140 x 65 yards in seven sections that zipper together to form one solid tarp. This is important because, other than during a Bears practice or college game, no rain or snow is allowed to accumulate on the practice field.

As the season progresses we pump 4 million BTU's of heat via Kerosenefired heaters under the tarps to keep the field from freezing. The only time the field is uncovered is for practice during November and December and hopefully January (playoff time!) The increased levels of potassium allow us o literally beat up this field, but it ...eeps getting up. In mid-November, an applicaton of K-Power[™] 12-0-42 at full rate is made which will take us through until the spring when this fun starts all over again!