

## with Banvel 45 \& Banvel+2,4D HERBICIDES

## The broadleaf weed 'specialists' designed for professional turf programs.

Here's why BANVEL ${ }^{8}$ herbicides are the professionals' choice for weed control:

- Used as directed Banvel will not harm trees, ornamentals or turf-it just eliminates weeds.
- No season restrictions. Lay down Banvel from early spring to late fall-all through the growing season.
- Rain will not affect Banvel. It keeps on working because it translocates-penetrates leaves and is absorbed through roots to attack every part of the weed.
- No special spraying equipment necessary. It is easy to clean out of equipment after use.
- Mixes readily with hard or soft water.
- Easily stored through winter months without losing potency.


Banvel herbicides-products
for professional turf men for professional turf men
oVelsicol
VELSICOL CHEMICAL CORPORATION 341 East Ohio Street Chicago, Illinois 60611
©Velsicol Chemical Corporation, 1976

The following article was published in the Bull Sheet a few years ago. It received nationwide interest. It will refresh your memory and be helpful to the many young supt's. of today.

GREENS MOWING NOT AS EASY AS IT LOOKS by Bob Williams, Sup't. Bob O'Link Golf Club

## Highland Park, III.

To most golfers, the mowing of greens is just an insignificant necessity that happens periodically in the routine of course maintenance.

To the seasoned superintendent, greens mowing becomes somewhat routine too until some facet of the operation begins to break down. Then we can get into all sorts of problems.

Actually, greens mowing is an art which is coupled with a number of scientific factors. To begin with, good, true, putting surfaces are one of the primary assets and objectives for any golf course. Considerable scientific know-how must go into the development of the turfgrass on these surfaces. Selection of adapted grass strains, soil mixtures, drainage, irrigation, disease control, plus many others are samples of items that have to be in balance before we get around to the mowing and grooming. The mowing of the putting green is the final touch in providing a velvet smooth surface that hopefully allows the golfer to see his ball run true to its target at the bottom of the cup.

In the northern climate, greens mowing should start as soon as the frost is out of the ground and the surface is dry. In Chicago, this is normally around the last of March or the first of April. This first cutting takes off the accumulation of winter growth. By about the third week in April there is enough growth to require a daily mowing schedule. Here is where one of the keys to good greens lies. Greens must be mowed at least six days a week and preferably seven throughout the growing season.

In greens mowing, we are harvesting a crop of grass of approximately a $1 / 2$ bushel per day, per green. If we skip a day of mowing, we begin to accumulate excess leaf blades that can eventually develop into graininess and matting of the leaf blades. Combs or brushes can be used ahead of the mower to help offset this tendency towards the establishment of grain.

What frequently happens unfortunately, is that when a superintendent is short handed for labor, he is inclined to skip the greens mowing occasionally. This practice eventually leads to problems of thatch, grain and poor putting. So by all means, I consider it a MUST to mow greens on a daily basis.

Another important element in greens mowing is the necessity to constantly change the direction of the mowing pattern. In so doing, we reduce the possibility of developing graininess. In practice, most superintendents instruct their operators to think of the green as the face of a clock, with the mowing direction shifted to various positions. For example, 6:00 to 12:00, 7:00 to 2:00, 3:00 to 9:00 and 5:00 to 11:00.

In our procedure at Bob O'Link, we teach our greensmen to repair all ball marks on the green before he actually begins to mow. This avoids scalping off any raised areas. Next, we ask our greensmen to remove the flagstick to a spot far enough off the green so as not to run into it while making a turn with the mower. This practice also avoids the dropping of the pole on the green resulting damage to good puttability.

After our man has repaired the ball marks and removed the flagstick, he now proceeds to make his initial cut across the green in the direction appropriate for that particular day. This first cut is also taken somewhere near the center of the green, relative to the direction for that day. This helps him to keep his lines straighter.

In the mechanics of the actual mowing, several points are important to stress. First, we teach our men to make a circular turn at the end of each strip rather than a quick twist of the mower. Twisting or turning the mower on-a-dime so to speak, ends up with damage to the turf on the collar and eventually bare ground as the summer heat and stress arrives.

Another most important aspect of mowing is the cutting of the final edge around the perimeter of the putting area. We have our men make two cuts around the green's outer edge to complete the mowing of the putting surface proper. Here is where some operators have a problem in maintaining the exact outside edgeline. They are inclined to either come in a little bit each day or to go out a little farther each day. By coming in, you soon lose the shape of the green and the greens get smaller and smaller. By going out, you bite into longer grass on the collar which will kill out in the hot weather and look very unsightly. We reshape our greens outlines every spring and this sometimes means resodding with putting green turf rather than to try to lower the height of the collar or bank turf.

Another consideration for high quality greens mowing, is to teach the operators to walk at a moderate to slow speed and to hold onto the mower handle with a palms-up light grip. The operator who goes at high speed with heavy arms tends to bounce the mower with the result of a very undesirable "washboard" affect on the putting surface. This slowing down is difficult where early morning play is heavy, particularly for the public courses.

In our mowing process, we have to establish a procedure for the disposal of the clippings. At Bob O'Link, we spread the clippings in the rought a short distance from the green, trying to change the spot from day to day. Some supers are providing bags or other containers for the grass, which is then picked up as a separate operation. Still others provide each mower with a small vehicle and he collects his clippings as he mows from green to green. The nutrient value derived from the decay and breakdown of the clippings is most beneficial if the operator can learn to properly spread them out so as not to interfere with the lie of a golf ball.

Height of cut for putting greens? This is a subject that can bring about some pretty lively discussions between superintendents. Part of this is true because of the variations in the different makes and types of mowers. They do not all cut alike even though the bed knife setting may be the same. Also, different strains of grass under different management practices will respond differently. Height of cut might also be dictated to a great extent by traffic, budget, labor, climate as a few examples. Consequently, there are so many variables in determining a proper height for mowing that it is hard to find two courses with exactly the same putting surfaces for speed, resilience and general puttability.

Our height of cut remains the same throughout the season. We use a single unit power mower set at $13 / 64$ ths of an inch (half way between $3 / 16$ ths \& 7/32nds). Our membership prefers the greens to be moderately fast without being slippery. This height gives us this response. Combs are left on our mowers
during the entire season, set $3 / 32$ nds below the cutting height.

We mow our greens by the sectional system with four men each mowing 5 greens (includes practice and nursery). Each greensman also rakes the footprints from the green traps on days when we are not power raking. Our normal time for mowing and trap care combined runs about 3 hours per man for a total of 12 labor hours, per day.

The current trend towards multiple triplex mowing units for greens opens up a whole new approach. Some courses are using them exclusively, others are using them in part, and still others are watching attentively to see how successful they prove out. At any rate, regardless of the type of machine used, most all of the principles we noted earlier, must still be observed, such as:

Change of direction of cut.
Care to maintain the outer edge.
Ball mark repair before mowing.
Flag stick removal.
Brushing or combing.
Moderate to slow speed.
Daily mowing.
Careful attention to gasoline, grease, oil, no spills.
While we are still using the single units for our greens, we are gaining experience with the triplex on our tees and collars. Thus far we are very happy with the results of the triplex as we are using it. The reduction of labor costs with the triplex units will undoubtedly force the use of the multiple units for greens mowing in the future. At the same time the manufacturers seem to be steadily improving the mechanical efficiency of their machines. Personally, I doubt if you will find single unit mowers on greens within five years, and I don't think we will lose any quality in the process. If anything, we will not only save manhours, we will be doing a better job with a better tool for management.

## HOW'S YOUR TURF IQ? *ANSWERS*

1. True. The results will be decreased root and shoot growth, reduced chlorophyll content, and reduced succulence.
2. Syringing helps to: Prevent wilt, cools the turf, reduces transpiration, and removes dew, frost, or exudations.
3. The main methods of irrigating are: Overhead irrigation which is the use of sprinklers; Surface irrigation, which is flooding; and Subsurface irrigation which supplies water to the plants beneath the soil without wetting the surface.
4. An acre inch of water equals 27,154 gallons of water. 5. One gallon of water weights 8.33 pounds, there are $71 / 2$ gallons in a cubic foot and a cubic foot of water weights $621 / 2$ pounds.

On June 16, 1977 Berkeley Chemical is holding a seminar and demonstration spraying of a new plant growth regulator and turf suppressant:

EMBARK ${ }^{\circ}$
which is manufactured by the 3 M Company. For location and information please call Mr. Patrick Halperin, Mid-West Regional Distributor, at (312) 666-1422.

