UNITED STATES GOLF ASSOCIATION
GREEN SECTION

NORTHEASTERN OFFICE
College of Agriculture
Rutgers University
NEW BRUNSWICK, NEW JERSEY

ALEXANDER M. RADKO
NORTHEASTERN DIRECTOR

NORTHEASTERN TURFLETTER

Vol. 2 No. 4 August 1955

JULY '55 - A SIZZLER!

The month of July 1955 was the hottest ever recorded in most of the Northeast. The mercury topped the 90° mark from 17 to 21 times at various places during the month. In some sections the temperature reached over 100° on four separate days - the highest reading reported was 102°.

At this writing the weather in August has been no change for the better. Already we have had five or six days over 90°, which shattered records that stood since 1918.

To the average American family, newspaper headlines that read, "20th Day at 90° Plus Scorches City," merely mean another day at the beach. To those responsible for the care and upkeep of a golf course it means a few more gray hairs - also the wish that they had taken up flagpole sitting or something equally easy as a means of livelihood.

In most of the Northeast the heat was accompanied by high winds, high humidity, and drought. A more troublesome combination for turf culture is difficult to find. When factors over which you have no control grip you, your hands are tied; there is little that you can do. In many cases superintendents were forced to "abandon" all but the greens - many concentrated efforts on saving their greens only. Superintendents with many years of experience in the Northeast have told me that they have never seen anything like it. Superintendent Mike O'Grady, of the Country Club of New Bedford, New Bedford, Mass., summed it up nicely in two words, "Texas weather."

What Has Happened

Poa annua, the cool-season weed which contaminates our turf in the Northeast, was quick to pass out of the picture. The continuous high temperatures were more than it could take. The Poa simply "Poa'd out."

We have heard much pro and con regarding Poa annua for many years, and your editor readily admits that during his experience he has been inclined to feel that this plant had its place in the turf world. In seasons past Poa annua gave little trouble; in fact, it rounded out the turf in putting greens and around aprons where permanent grasses faded. Much of it stayed throughout the season, providing at least passible turf during most of the year. This year, however, the bottom fell out and our Poa bubble burst. I'll cast my ballot for the complete eradition of this weed.

Bentgrass also wilted out during July. This has been a season when light frequent syringing of the greens was a "must" to keep bentgrasses alive. Trouble in much of the Northeast started over the July 4th weekend. It was at that time that wilt began and it has continued since. It was important to watch greens carefully for signs of footprinting and the blue color that accompanies wilt. When that occurred the grass plant was losing water through transpiration faster than it could take it up from the soil. It was not uncommon during that time to see the soil dry for a half inch beneath the turf while the soil below that level was wet. During these extreme temperatures water loss through evaporation and transpiration was a tremendous factor. Superintendents were forced to syringe greens lightly several times each day to keep the grass alive. Light, frequent watering during periods of continuous high temperatures slows down the rate of transpiration and cools the surface of the plants and soil.

Greens that were aerated well during the past year came through the difficult period in better shape than greens that were aerated little or not at all. Roots under well aerated greens reached down to the depth of the soil moisture.

This season has also been one in which inadequacies in water pressure showed up quickly. Speed in getting the water to the wilting grass was all important. If the water pressure was poor, the loss of some turf was inevitable. Many courses depending on city water were allowed restricted use only, and in one known case, without warning, the superintendent was told that he could use no more water for his greens until further notice. The "City Fathers" might just as well have told him to strip his greens and carry them to the city dump. Unless Providence takes good care of this area the greens are sure to go.

Disease also ran rampant this summer. Never in my experience have I seen such widespread disease attacking greens. Pythium, curvularia, Helminthosporium, brownpatch, copperspot and fairy ring were most prevalent. Where the turf thinned, crabgrass and other weeds were quick to incroach. Insect activity, too, especially cutworms, reached a higher peak than in years past.

Aprons and collars around greens were fast to go. Unfortunately, Poa annua population usually is high around many greens. When bentgrass weakens Poa is quick to fill in and is encouraged by watering practices around greens - also by the higher cut that we favor our collars with. Under such conditions Poa seeds heavily, infests the soil, and is ready to germinate when conditions are again right.

What To Do - Suggested Program

Aprons: Where the Poa annua has gone out aerate and spike disc thoroughly and overseed with Colonial bentgrass. The more holes made, the better the chances that seed will come in contact with the soil and germinate. It is important to do a shallow job of aeration prior to seeding. Deep aeration is not advisable when trying to establish new seed. It is best to do this renovation as early as possible as time is important in getting the jump on Poa annua. If a thick stand of bentgrass is obtained it will help suppress germination of Poa annua seed.

Greens: Where the turf fails to respond, patching and sodding with improved bentgrass selections are recommended. This is a season when the value of a good turf nursery comes to the fore. Superintendents who have nursed along good putting green nurseries are in a much better position to make necessary repairs with least inconvenience to play.

Golf courses without available putting green sod are forced to overseed with seaside or Astoria bentgrasses. The preferred selection to use would be the improved Penncross strain - however, there is no seed presently available and little is expected this fall according to all reports.

As for troublesome greens, those with particularly bad soil conditions, poor drainage, poor shape or other "built-in" headaches, this is the time to rebuild. Many such

greens have been entirely lost this season. If rebuilding is necessary don't do a half-hearted job - go all out to make the green perfect. Make good provisions for drainage. This is all important. There are four kinds of drainage that you must consider:

1. Air drainage: Make sure that air circulation over the green is provided for. If surrounded by brush and trees, cut a path in the direction of the prevailing wind and clear away all brush possible.

2. Soil drainage: A good soil is made up of approximately 50% solids, 25% air space, and 25% water space. In order to obtain such a ratio, a good percentage of coarse materials is required. An ideal ratio of ingredients would be approximately 60% coarse, sharp sand; 25% sterile soil; and 15% organic matter. How do you obtain this ratio? Take a sample of your present soil and send it to your agricultural experiment station for mechanical analysis. Request recommendations also on the amounts of coarse, sharp sand and organic matter required to give you the 60-25-15 ratio.

   For a description of the type of coarse, sharp sand required see page 123 of the USGA's book, "Turf Management," by H. B. Musser. We realize that sand to fit these specifications may not be available everywhere but if you will bring these specifications to your supplier he will be able to tell you whether he has sand which closely approximates it. If you merely ask for a coarse, sharp sand you may wind up with an undesirable product. The description, "coarse, sharp sand," means different things to people engaged in different fields. Be sure to bring the "Turf Bible" with you.

3. Surface drainage: Allow for good surface drainage by sloping the green from two or three directions. Approximately a grade of 1% to 3% is most desirable. In grading the green allow for adequate cupping space - keep slopes gradual.

4. Tile drainage: Install tile to remove surplus or excess water. Keep the soil "breathing," and the turfgrasses above will be better for it.

Tees

This has been a great year for Merion bluegrass. Merion has performed exceptionally well during this trying period. In some cases tees were "abandoned" in favor of holding greens. Where this happened the Merion held up beautifully while bentgrass growing right next to it wilted out. Merion bluegrass is gaining favor with superintendents and green committee chairmen in the Northeast. It has performed particularly well on tees subject to heavy iron play - par-3 holes. The greatest success has been had by sodding tees completely - plugging or overseeding Merion into existing turf has not worked out well at all.

Now's the Time to Build a Putting Green Nursery

1. Work up the soil to a depth of three to five inches.
2. Sterilize soil with cyanamid or Dowfume MC-2. If Dowfume is used special precaution must be made as it is deadly to warm-blooded animals. If cyanamid is used work 25 pounds intimately into the top three inches; apply another 25 pounds uniformly over the surface, to each 1,000 square feet. Water to activate cyanamid, and wait 30 days.
3. Add coarse, sharp sand and organic matter to the top inch of nursery area to give you a physical condition of the same soil texture you desire for greens.
4. Plant stolons of improved creeping bentgrass selections such as a mixture of 50% C-1 (Arlington) and 50% C-19 (Congressional) or Pennlu - 10 bushels to 1,000 square feet for fast coverage. Topdress with same mixture. If Penncross seed is available seed it at the rate of 1 pound to 2,000 square feet.
5. When planted, water stolons lightly several times daily. Don't ever let them dry.
6. When the grass has become rooted, mow the first few times with the catcher off - allow clippings to fall.
7. Thereafter maintain and manage as regular putting green.

Northeastern Turfletter

USGA GREEN SECTION

Sewerage Commission, City of Milwaukee
P. O. Box #2079
Milwaukee, Wisconsin