
Answers to turf questions

by Fred V. Grau



A tribute to Howard B. Musser

Howard Burton Musser, an international leader in turf, died last month, at the age of 74. To many he was best known as the author of the book *Turf Management*. To a host of others he was "Prof," their teacher. His place in research has been secured by his part in the development and release of Penncross creeping bent and Pennlawn creeping red fescue. The new Pennstar Kentucky bluegrass largely is a product of his earlier research with bluegrasses.

Weed control in turf was a major effort, particularly with dry formulations. Proper management of turfgrasses became almost an obsession. Many were the lecture platforms in the United States and Canada on which he stood to preach the gospel of good management. Golf architects especially were favored by his writings.

The subject of fertilizers consumed large blocks of his time and energy which, until the last, seemed to be boundless. He strove mightily to teach how one fertilizer differed from another, yet was similar.

During World War II he served our country well in the Air Force, acting as liaison officer with army engineers in reducing dust and erosion on military installations. In 1943 he returned to Penn State with the rank of Lt. Colonel.

At turf conferences and turf field days, Professor Musser held the center of the stage, organizing, teaching, directing. Largely through his untiring zeal and dedication to turf and the green-keeping profession, Penn State is recognized world wide as the leader.

When crownvetch had been discovered and developed as a potentially valuable slope cover, he devoted much research time to learning how it could be better used on raw slopes. Several publications which bear his name give evidence that some of the answers had been found.

His leadership continued in evidence when he accepted the position as executive director of the Pennsylvania Turfgrass Council, a position which he held until his death. His efforts helped to bring into being the first Turfgrass

Survey in the state which was also the first authentic comprehensive survey in the nation.

With soil modification, grass breeding, and many other studies, one might think that he was "all work and no play." Not so! Golf was pre-eminent for many years. As a left-hander he won tournaments while evaluating the turf he helped to produce. Mention coon hunting and the group could sit back for hours listening to one humorous episode after another. As the years took their toll of energy, Burt and Maida would hie off to Canada for a fishing spree.

Suffice it to say that Burt Musser was a whole man who worked hard and played hard. He insisted on quality and dedication in his students, but inspired them and was revered by them. This man touched the lives of a great many in the turfgrass field. His influence and the good he has done will live on into infinity. Each of us who was privileged to work with him will remember him in some special way. Truly he was a man of many facets, many qualities and truly dedicated to the end.

Honors that were conferred upon him include the G.C.S.A. Award of Merit, Fellow of American Society of Agronomy, and the Green Section Award from the U.S. Golf Association.

He was a member of Sigma Xi, Phi Kappa Phi, and Gamma Sigma Delta, all scientific honor societies.

Q.—There seems to be a growing feeling that much fairway turf is damaged or killed by maintenance equipment. If this is true, how can we work toward a better solution?

(Pennsylvania)

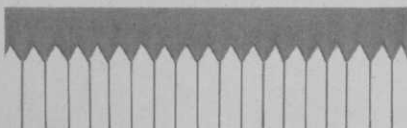
A.—My best approach to this problem is to plagiarize on the excellent presentation of Richie Valentine and David Miller at the recent Philadelphia Association conference. They use lighter equipment when grass is in stress. They cross mow. They mow at times of the day when grass is least likely to be bruised. They control golf car operations. They manage water so that soils are firm, never overly wet. Fertilization is reduced so as to reduce the frequency of mowing. Mowers are kept sharp to reduce damage to cut

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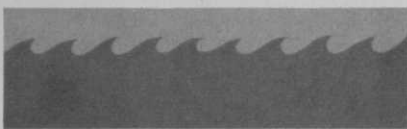
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tissues. Speed of vehicles is reduced to lessen wear and tear.

These are only a few of the points covered by the speakers on the subject.

Q.—At what height should Penn-cross bent be cut? Please consider viewpoint of a) players, b) superintendent, c) normal conditions. Also, what feeding program is considered sufficient?

(Pennsylvania)

A.—Penn-cross bent was developed for putting green use. The player's best interests come first. Therefore, Penn-cross bent on greens should be cut at heights between 3/16-inch (48mm.) and 1/4 inch (65mm.) Daily mowing is recommended. "Normal" conditions for Penn-cross should be considered as "tournament condition." When Penn-cross is cut too high or too infrequently it tends to develop thatch which may become "scalped."

Briefly (and roughly) a "sufficient" feeding program will consist of 6 to 8 lbs. of N to 1,000 sq. ft. for the season in your area, 2 to 3 lbs. of P, and 4 to 5 lbs. of K. The pH values should be maintained in the 6.5 to 6.8 range. Using ureaform you may apply 8 lbs. of N in three applications. With solubles and natural organics it will require eight or more applications. Specific recommendations can be secured through your county agent and Extension Specialist from Penn State.

Q.—On July 21 we were watching the televised play in the PGA tournament at Pecan Valley near San Antonio. On more than one occasion the commentators (Byron Nelson, Chris Shenkel, et. al.) mentioned "the green is very grainy next to the hole," "he is putting across the grain," and more. Several questions arise. 1) Is bermudagrass inclined to be more grainy than bent? 2) How does grain develop? 3) How can

grain be minimized?

(New Mexico)

A.—I, too, watched The PGA tournament and heard the comments. All of us saw putts die just inches from the cup or suddenly roll sideways and miss the cup. The exasperation of players accustomed to a predictable roll can well be imagined.

1) In general, bermudagrass tends to develop grain more so than bents. The newer bermudas, under careful management, should be virtually free from grain and should perform like bent. I do not know which strain of bermuda is on the greens at Pecan Valley. It has been several years since I visited there.

2) Grain develops sometimes as an inherent characteristic of the grass itself. An example is the old Virginia bent and Tifton 127 bermuda on which grain was uncontrollable. Grain at Pecan Valley was said to develop "with the sun and the prevailing wind." In Florida it used to be said that grain always "ran toward the ocean." Injudicious management can have a great deal to do with allowing grain to develop; i.e. lack of brushing, mowing too high, forcing growth with fast-acting fertilizers, infrequent mowing.

3) Grain can be minimized by severe brushing in several directions, mowing closely and often, developing slow uniform growth with a sound feeding program and topdressing to cover surface runners.

Q.—We have bent greens and common bermudagrass fairways, approaches and collars. There is quite a bit of encroachment of bermuda into the greens. Is there a chemical that will kill the bermuda and not harm the bent?

(North Carolina)

A.—Bermudagrass is much more tolerant of chemicals than bent. I regret to say that chemical control is not the answer. You must pick it out by hand and be extra diligent about edging the greens to prevent invasion from the collars. □