soil surface). Grass that stands erect is cut off. Creeping grass and many other turfgrasses grow in such a way that many of their stems and leaves do not stand upright but are parallel to the ground. At first they develop what we know as "grain." Reel and rotary mowers can not cut these prostrate stems. They accumulate, causing the mower to continually ride higher on the developing thatch and mat.

Vertical mowers are built so that cutting blades revolve in a perpendicular (vertical or upright) plane — like a rolling wheel. Adjusting the height of the spinning blades in relation to the turf, they can be made to cut the flat blades and stems of grass at the surface, thus removing, at the source, much of the trouble (grain, thatch, mat, and accompanying trouble from diseases which flourish in the "moist incubator" of matted grass) that we find with creeping bent greens. Vertical mowing of greens need not be done more often than once a week or once every two weeks as compared to daily mowing with the greensmower. Use of the vertical mower actually improves the putting surface by removing unseen irregularities which destroy accuracy in putting. Development of vertical mowing ranks high on the list of accomplishments in turfgrass maintenance.

Q. Please explain the apparent difference in recommendations between 50 lbs. to 1,000 sq. ft. of Aero Cyanamide and 13 lbs. of calcium-cyanamide per cu. yd. of top dressing. Are these two different names for the same product?

A. Sometimes we become careless in use of familiar terms. The correct name of the product to which you refer is Aero Cyanamid Granular. The chemical symbol is $CaCN_2$ — calcium cyanamid. The rate of 50 lbs. (sometimes 75 lbs.) to 1,000 sq. ft. is recommended for treating the surface of seed beds prior to planting. The rate of 13 lbs. to a cu. yd. is recommended for killing weed seeds in compost or topdressing prior to use. Pamphlets on the best ways to use this material may be obtained from American Cyanamid Co., 30 Rockefeller Plaza, New York, N. Y.

Q. A large percentage of the grass on the greens at our course is composed of Poa Annua and Seaside bentgrass. Will the application of 10 lbs. of lead arsenate to 1,000 sq. ft. prevent germination of Seaside bent seed, both proposed to be used this fall on the greens? (N.J.)

A. Yes, the germination of bent seed will be affected and retarded if 10 lbs. of arsenate of lead are used at the time of seeding the bent. I assume that your intention probably is to retard germination of the Poa.

Seaside bent is not one of the best putting grasses in your area. I'm sure that if you stay with bent, Cohansey (C-7) will prove much more satisfactory. If you want a grass that will give maximum satisfaction throughout the summer with minimum care and will allow Poa to come in to give you winter color, you might devote some of your test nursery area

to one of the improved Bermuda grasses. Two that I would suggest for you to try side by side are Tifgreen and Ugandagrass. Both are fine in texture, the latter like bent. Ugandagrass is proven winter hardy in New York and central Pennsylvania. Tifgreen is undergoing hardiness tests.

Q. Can you advise as to one or two good sources of information on Bermuda grasses? We want books giving details on planting, care, fertilizing, disease control, etc. (Maryland)

A. The best reference we know of on the subject is the 1948 U.S.D.A. Yearbook GRASS. There is no book on the subject that we know of. A good source of current information is the U.S.D.A. Plant Industry Station, Beltsville, Md. Another source of current data is Georgia Coastal Plain Exp. Station, Tifton, Ga. This department of Golfdom can help you with specific problems. The current issue of "Southern California Turfgrass Culture" carries an "Evaluation of Bermuda Grasses." This is available from University of California, Dept. of Horticulture, Los Angeles 14, Calif.

Q. The pH on my greens is up around 7.5 to 7.6. I'm afraid it is getting too high. What can I do to lower it? (Ill.)

A. My advice is to do nothing about your pH — just let the grass enjoy it. Bentgrass will thrive over a very wide range of pH values — even up to pH 8.5.

Light, periodic applications of sulfate of ammonia will tend to hold the reaction steady