

Grau's Answers to Turf Questions



Ideal Fertilizer May be Blend of N Sources

Continued large-scale construction of new turfgrass facilities draws attention to the critical item of establishment of the grasses that will produce turf. It is the rule rather than the exception that there is a great urgency to place the area in use as soon as possible after the grass is planted. Selection of the right grass is a most important factor so that the facility will provide maximum usefulness over the longest possible period.

Rapid establishment of grass is dependent upon temperature and moisture, both of which must be optimum for the selected species, mixture or strain. Without adequate nutrients, however, turf will become established slowly and with many weeds.

There seems to be no difference of opinion among scientists regarding the importance of incorporating lime, P and K into the seedbed prior to seeding, sprigging, stolonizing or sodding. The matter of using N in the seedbed prior to planting deserves some serious consideration and discussion.

There are two principal classes of nitrogen available for use in fertilizers: 1) soluble and 2) insoluble. For many years it has been generally agreed that 1 lb. of soluble N (all rates on basis of 1,000 sq. ft.) is a safe level for seedbed fertilization. Solubles include sulfate of ammonia, ammonium nitrate and urea, for example. Since all of it is available at once, the danger of burning the tender seedling plants is great. Papers presented at scientific meetings show that, with rainfall and irrigation, as much as 70 per cent of the soluble N may be leached from the rootzone out of reach of the grass roots. Part of the N may be lost into the air by volatilization (similar to evaporation). Now we can understand why seedling turf shows N hunger signs so quickly when the seedbed feeding was of the order of 400 lbs. of a 10-6-4 to the acre (about 1 lb. of N to 1,000 sq. ft.). Also, it is known that soluble N tends to be used nearly completely within three to four weeks. When grass seeds take two weeks to come up, there is not much left to feed the seedlings.

Insoluble N is derived from organic carriers such as natural organic materials (sludges and seed meals) and solid urea forms. Since these materials are only slightly soluble in water, much heavier seedbed applications can be made without the danger of burning or loss by leaching. It is known that the insoluble sources of N require bacterial activity to release N to the plants. For this reason, among others, the N remains available over a longer period, thus delaying the date of the first maintenance application of N if sufficiently applied at seedling time.

Maintained Vigorous Turf

In carefully conducted tests in Rhode Island, it was found that 8 lbs. of insoluble N in the seedbed at time of seeding a Merion mixture in late May, maintained continually vigorous turf all season. By early Sept. the sod could be cut, rolled and moved. Better still, the steady feeding continued into the following season without maintenance feeding.

In a speech at the recent Pennsylvania turf conference, Joe Duich indicated that, in the light of results from experiments, the "ideal" turf fertilizer most likely would be a blend of N sources. Solubles would furnish quick-starting N; natural organics would provide N of intermediate longevity plus trace elements; and solid ureaform would yield a long lasting

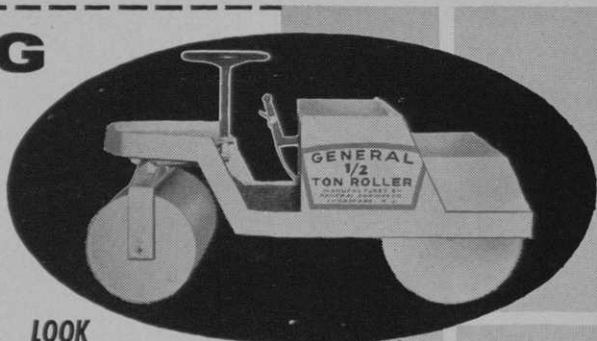
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source of N and most uniform growth.

Our purpose in discussing N in seedbeds is to encourage those responsible to add sufficient N to seedbeds to feed the grass for three to four months instead of three to four weeks. The same total quantity of N will have to be applied to produce usable turf. By adding to the seedbed sufficient N to grow the turf for several months, the supt. will be free to give closer attention to other pressing details incident to opening a new course.

Bermuda Slow to Take

Q: We are in the southeast corner of Kansas, a little far north for Bermuda and a little too far south and too dry for bluegrass. We have some Bermuda coming in our fairways, however, but it is very slow. We would like to know what grass to plant our fairways to. We drilled fescue in them last fall, but of course it is clumpy and in drill rows (it's a mistake to drill we now realize). We cannot water our fairways and, being at a small club, probably never will. Our average annual rainfall is about 42 ins. and often our summers are very hot and dry. Also in our fairways we have some Bermuda that was sprigged into them two years ago this fall. It is very slow in coming and does not afford total cover any place.

The fringes of our greens are also a problem and we have planted them to fescue and

rye and redtop. Will C-7 stand off Bermuda if it is planted in the fringe? (Kansas)

A: The best grass for your fairways is U-3 Bermuda. With 42 inches of rainfall you need not even consider a watering system for fairways. The slow coverage of the Bermuda that you sprigged two years ago undoubtedly is due to a lack of nitrogen. Ample nitrogen fertilizer is a *must* if you desire good dense fairway turf.

You need not be concerned about U-3 invading the greens if you use an edger once a week to cut runners that try to creep in. The greensmen will have to do some handpicking of the runners but this is simple.

Cohansey (C-7) bent is very good for greens in your area but I would not rely on it to hold Bermuda back in the collars. Let the Bermuda come right up to the putting surface. Some clubs plant a fine-leaf Bermuda on the collars (Tifgreen, Ugandagrass or similar) in a strip 6 feet wide around the greens. Both practices have pros and cons. It will be cheaper to let the U-3 come right up to the bent putting surface.

Big Year for LPGA

Purses for Ladies PGA tournaments in 1961 are expected to top those of 1959 by \$15,000 according to Fred Corcoran, LPGA business mgr. The latter year was the most lucrative in history for the women professionals.