

little water. Soil tests show that we lack nitrogen, phosphorus and potash. A program is under way to correct these deficiencies.

What is the potential of Merion, Fylking and common bluegrass? We now have a variety of grasses including winter rye. Our greatest desire is to develop a good bed of turf that will take our dry summers with minimum water. What can you suggest?

(Spain)

A.—The situation that you describe is familiar. Once, long ago, we had to produce playable turf without irrigation. At that time we did not have improved grasses, fertilizers that adjust to conditions and machines to help rainfall soak into the turf. Today, with better grasses, better fertilizers, improved tools and sophisticated chemicals, we should be able to do a much better job of giving the golfer a

decent turf with little or no irrigation.

Considering everything, you will do well to consider establishing turf with a blend of the best bluegrasses available. Plan the time of seeding when natural rainfall provides the best opportunity for establishment. Incorporate adequate nutrients, including slow release nitrogen, into the seed bed in sufficient quantity to carry the turf over the dry season into the next rainy period.

Merion and Fylking Kentucky bluegrasses should be the basis for your blend. Use Pennstar bluegrass also if it becomes available when you get ready to plant. Prato is one that deserves to be included—also South Dakota Common (Certified). For a perennial ryegrass companion for quick starting you should consider Pelo or Manhattan.

At this point and at this dis-

tance I hesitate to outline a complete program. Additional information on soils, soil tests, climate, weeds and other vegetation would be helpful.

Q.—Have the new turf-type ryegrasses lived up to their promises? Can we look forward to newer and better ones?

(Maryland)

A.—In my estimation the new ryegrasses have, in many cases, exceeded expectations. Growers have not been able to produce enough to meet the amazing demand. In a few cases they have been disappointing but due principally to misuse or mismanagement. Look for the announcement shortly of the release of a new synthetic turf ryegrass from a northeastern university. I've seen the plots and the quality is there. This

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GRAU

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phase of turfgrass development is, frankly, exciting.

Q.—We have been spraying our greens with fungicide for the control of Pythium. Recently we sprayed fertilizer, an iron compound (chelated), a disodium methyl arsonate preparation for post-emergence crabgrass control, a wetting agent and hydrated lime, all blended in the tank. The grass turned black and we wonder how long it will last and if it will hurt the grass.

(Maryland)

A.—My best judgment is that the black color is the result of interaction between the iron and the lime, augmented by the wetting agent which increases penetration and enhances effectiveness. I doubt that you will have any serious consequences but, in the future, my advice

is to use only one or two of these chemicals at a time so that, should anything happen, you can fix the blame. You have too many "unknowns" going for you—better simplify a bit.

Q.—We are working toward solid zoysia fairways. Poa annua is a "natural" during winter and early spring. When hot weather comes and the Poa starts to wilt we irrigate to "hold the Poa" and preserve appearances. Is it possible that we are hurting our zoysia? It doesn't seem to be spreading as it should.

(New Jersey)

A.—It is almost certain that irrigation to hold the *Poa* is harming your zoysia. It would be far better to prepare your members with a bulletin, then let the *Poa* wilt so that the zoysia can develop and spread without being "drowned." About this time the zoysia will

benefit from an application of a slow-release fertilizer. Zoysia will need water only when it starts to turn bluish-purple from wilt. In five minutes the leaves will be fresh and green.

Q.—You have been an advocate of using hydrated lime during the summer to help ailing turf, but usually you say, "Spray one-half pound to 1,000 square feet." Why don't you say, "Dust..."? When turf is soggy, why apply more water?

(Pennsylvania)

A.—Your point is well taken. I've been stymied by my inability to find a suitable duster, power or manual that can do the job. If you know of one, preferably one that utilizes tractor engine exhaust as an impelling force, please let us know. I will be only too glad to say "Dust" instead of "Spray" when there is excess moisture present. □

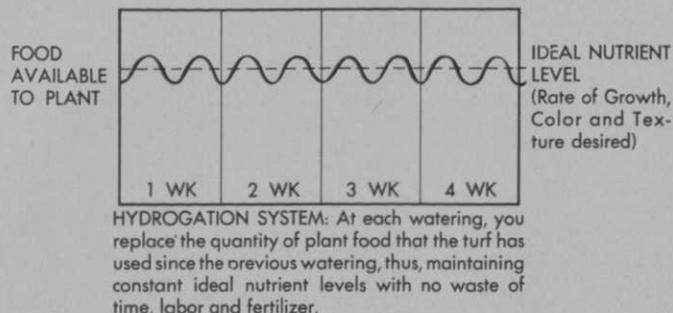
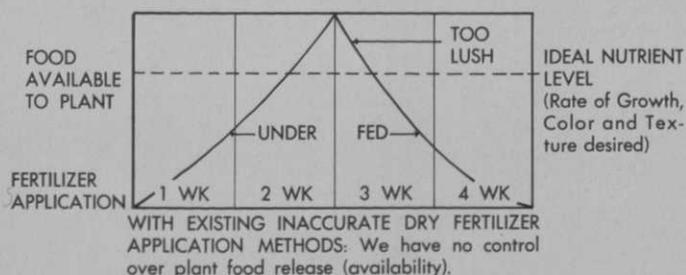
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