

Better putting surfaces are a reality when the turf is on the lean and hungry side, they putt smoother and faster, they are more nearly true, they are less likely to become severely infested with **Poa annua**, they are less subject to wilt, and they do not build up a heavy mat or thatch so rapidly. The late Prof. L. R. Dickinson, one of the prominent pioneers in the fine turf-grass field, said it in a nutshell:

"Let the little grass plant grow, don't **make** it grow!"

Putting green turfgrasses should be managed so they will retain their thin blade char-

acteristics, a retention of its dwarf characteristics; not a continuous forcing and fattening process that leads to more and more problems in maintenance. If you are troubled by your present program, cut your nitrogen feeding program in half as a start and then experiment to find your own desirable level. This refers to bentgrasses, not bermudagrasses. You will do better by applying very light applications more frequently than you will if you apply larger quantities infrequently.

Then sit back and watch the smiles as the ball rings, rolls . . . and (?) rattles.

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# Rodent Control

by DR. MARVIN H. FERGUSON, Mid-Continent Director, USGA Green Section

Old-timers speak about a slightly fraudulent mail order scheme that was practiced in the early days of newspaper advertising. The ad would offer a moneyback guarantee that the equipment for sale would absolutely kill bugs and spiders if the buyer would follow directions. The cost of such equipment with printed instructions usually was about one dollar. When the customer's bug killing kit arrived, he found it consisted of two small blocks of wood and these instructions, "Catch the bug and place him on one of these blocks. Then squash him with the other one."

Effective and positive? Yes. Practical and efficient? No.

The practice of rodent control on the golf course comes close to being at the same stage of advancement. There are easier ways to control rodents if one wishes to undertake a full scale attack on all rodent pests. Such a large undertaking usually requires such skills and precautions that most clubs would be well advised to hire a custom eradicator, or to enlist the aid of the state fish and wildlife service.

Most rodent infestations on the golf course are not serious enough to warrant an extensive control program. The usual approach is to catch and kill, or to poison the offenders one at a time.

Moles and pocket gophers are the most troublesome of the animals that inhabit golf

courses. Ground squirrels are frequently found, but they seldom cause damage on the most heavily used portion of the course. In arid regions, and exceptionally dry years, jack rabbits may come for miles to feed on lush putting greens. They have been known to eat bentgrass turf literally into the ground.

## RABBITS

Of the pests mentioned, only rabbits inflict damage by actually eating the turf. A repellent material such as thiram, which can be sprayed on the turf, can be quite effective. Moles, gophers, and ground squirrels are nuisances because of their burrowing habits.

## MOLES

Moles feed on insects such as beetle grubs and on earthworms. They tunnel through the soil in search of food and raise small "runs" and mounds in moist, soft earth. Little damage occurs unless the raised soil dries out, or unless the area is mowed and scalped before the raised area has been depressed.

The most effective way to keep moles out of the golf course is to do a good job of eliminating grubs and worms. Chlordane, used at the rate of 8 to 10 pounds of active ingredient per acre, or dieldrin used at the rate of 5 or 6 pounds active ingredient per acre will control beetle grubs and reduce the earthworm popu-



*The new and the old. A new gopher mound is hard on fairway mowers. An old one smothers the grass.*

lation for a period of 5 years or more. In the absence of food, the mole will seldom be a problem. The few that may occur can be trapped with devices available at most farm supply stores.

### **GOPHERS**

Pocket gophers feed on roots, tubers, grains, and other vegetable matter. They do not normally harm grass roots, but the mounds of earth thrown out of their tunnels can be a decided nuisance. Where they occur in large numbers, gophers can cause such unevenness of the ground (even in the rough) that mowing is very difficult.

There are two main methods of ridding an area of gophers—trapping and poisoning. Poisoning is done by introducing poisoned grain into the burrows. Usually, thallium or strychnine compounds are used in making the bait. Wheat, barley, sorghum, or peanuts may be treated with the poison. Inasmuch as most users will need relatively small amounts, it is best to buy prepared baits from feed supply stores or from professional exterminators. These are extremely dangerous materials and should never be left where they might be encountered by children or pets.

### **GOPHER MACHINES**

The poison bait is introduced into individual burrows by probing the run near where

a fresh mound has been thrown up. About one teaspoonful of bait in one spot is sufficient. In the case of large area infestations, mechanical "burrow-builders" may be used. This tractor-mounted machine consists of an elongated oval "torpedo" or "mole" at the end of a chisel which is pulled through moist soil at a depth of about six inches. Poison grain is introduced into these mechanically dug burrows. Gophers will follow these runs where they intercept their own and will find the poison grain. Mechanical burrow builders would likely be used on a golf course only in rough areas or as a perimeter treatment as an attempt to prevent invasion by gophers.

Various types of smoke and fume bombs, cyanide crystals, and even carbon monoxide injectors which attach to tractor exhausts are among the control devices sometimes employed to kill gophers in the burrows.

### **OTHER RODENTS**

Although skunks and armadillos are not rodents, they sometimes root up turf. The prevention of such damage depends upon ridding the turf of insects.

Rats and mice are seldom a matter of concern around the golf course, except in seed storage areas or around the clubhouse. Anti-coagulant type poison baits are very effective and extraordinarily safe to use if simple precautions are followed.

This discussion may be summarized by saying that if you have a serious rodent problem, seek professional help. If there is only a scattered infestation, employ your trapping and hunting skills to destroy the individual offender.

*The beginning (or ending) of a rodent's run!*

