So many interesting things were brought to our attention in the past several weeks that in this issue we will discuss not one idea, but several.

**Conference Q & A Session**

It has been suggested that one half-day session at some turfgrass conferences might be occupied with a Question and Answer Session. To make this work there would be four or five short papers previously prepared on carefully selected topics. These papers would be mimeographed and clipped together, and given to each registrant at the registration desk. The cover would say that this paper will not be presented but time will be devoted to Q & As after the people at the conference have read the paper. The Q & A session would be devoted to discussion and in clearing up misunderstandings or misconceptions on the subject presented in each paper.

**New-Type Damage on Greens**

On a recent visit to Shady Oaks CC, Fort Worth, Tex., Ross Bush, supt., showed us damage on several greens caused by a grass-eating rodent. Ross had killed one of the animals which was identified as a nutria, a furbearing aquatic mammal introduced from South America in 1930 by way of Louisiana.

The nutria is a “large muskrat”, sometimes called a “swamp beaver”. It has sharp front teeth with which it can chop vegetation and graze very closely, much closer than a green mower can cut.

This is believed to be the first reported damage to a golf course caused by this animal. Attempts are being made to secure pictures of a nutria for a future issue of GOLFDOM.

**Accidental Deep Mixing Gives Surprisingly Good Drainage**

At Carswell A.F.B., Fort Worth, Bob Alexander pointed out putting greens that have drained perfectly since they were built. According to Bob, one of the reasons for the good drainage can be traced to a mistake made by a rotovator operator. Pea gravel had been spread on the subgrade beneath which there was drain tile. The soil, sand, and peat (about 12 inches, loose) were laid down, to be mixed in place with a rotovator.

Instead of adjusting his machine to stay just above the pea gravel, the operator misunderstood and mixed pea gravel, soil, sand and peat all together at about 15 inches depth. Bob says that setting cups occasionally can be difficult but there never has been a question about drainage.

This raises the question, which will not be answered here, whether the soil topmix over the gravel layer may be too shallow on many greens to permit good drainage. Perhaps topmix should be much deeper to increase the distance between the saturated zone at the water table level and the surface of the green. Reader comments will be welcome since this subject will receive further attention.

**Will There Be Enough Supts.?**

The rate at which new courses are being built and opened for play poses a serious problem to owners and operators. Experienced supt.s are in heavy demand. For a while topnotch men can be pirated from other clubs by the simple expedient of offering more money, better living conditions, better schools for the youngsters, better shops, offices and equipment. But — comes the time when we run out of experienced supt.s that are willing to move.
The bright young men who are being graduated from two and four year courses at universities are very much in demand. Divot News, the official publication of the G.C. Supts. Assn. of So. Calif. Chapter, says in an article entitled “Looking Into the Future” . . . . “A step in the right direction would be hiring of Assistant Supts. at more clubs.” Where will these assistants come from but from training courses at universities where the theoretical “why” is coordinated with the practical “how?”

Who but an experienced supt. can complete the training of these young men from the colleges and short courses? Call them “graduates”, “trainees”, “assistant supts.” or what you will, they are the men who will be occupying the top jobs in the near future. They are invited to golf clubs to be paid while they learn. When they have reached a certain proficiency the supt. helps them to secure a position of trust and responsibility as a supt. at some other course. Rarely, if ever, do they take the job of the incumbent supt. unless that man is ready to move or retire. Sometimes they “flunk out” and don’t make the grade.

New Standard of Judgment

The way things are moving in the golf field, the progressive supt. may be known by the number of students he helps toward the completion of their training. It must be a great satisfaction to think, “There are ‘six’ courses right around here that are managed by supts. who got their basic training at State and who finished their practical experience right here on my course.”

The salaries of top supts. are beginning to attract high school students who formerly could find no incentive to seek employment in the turfgrass profession. Recognition and social standing also help to attract young men to the work of supts. Improvement in this phase of greenkeeping has been remarkable.

Arlington Needs Nitrogen

Q. I have one green that was built with gumbo. It was planted to Arlington (C-1). I treat it the same as my Seaside greens but it never looks good even though I don’t lose any grass. Do you think it needs iron? How about nitrogen? (Kansas)

A. Arlington bent needs about twice as much nitrogen as most other bentgrasses. I would say that the grass is hungry. Arlington does better if the soil is allowed to become quite dry now and then.

It cannot stand wet feet as well as Seaside. Try aerifying it more thoroughly, feeding heavier with nitrogen and keeping it drier. Keep the thatch trimmed off by 3/16 inch daily mowing and vigorous combing, brushing or vertical mowing.

Aeration Is the Word

Q. Each spring we have some trouble with dead grass, mostly on the greens. Some call it waterkill, others say it is spring-kill. In 1962 we had snow and ice stacked up on our practice green and we noticed that there was no damage at all around each cup hole. The perfect grass extended out 6 to 8 inches from the hole, then beyond that all the grass was dead. The same thing was noted around aerifier holes, but the area of good grass was smaller.

How do you explain this? (Wisconsin)

A. To oversimplify, the answer comes in one word, “aeration”. The situation you have described has been observed in several locations. The only way it can be explained is that there was sufficient exchange of gases to enable the grass to stay alive. While the grass was covered with snow and ice, the grass was still respiring. Gradually the concentration of CO₂ built up and displaced the oxygen so that the roots were smothered. Where there was a hole there was a chance for CO₂ to escape and oxygen to enter. It is recalled that the soil was soaked from excessive fall rains in late 1961.

Weedy Fairways

Q. Over the past several years our ordinary bluegrass fairways have become weeder. We sprayed for dandelions and plantain and then the clover came in. When we sprayed for clover the turf was left so thin and sparse that it will not hold a ball up. The members complain they hurt their wrists when they hit shots. We have not fertilized because this is rich corn ground. Your help will be appreciated. (Indiana)

A. When bluegrass turf is adequately supplied with nutrients it becomes progressively more dense and more resistant to weed invasion. Without seeing soil test results we’d say it is a safe bet that the grass is nitrogen starved in spite of the “rich corn ground.”

By all means have your experiment station test the soil. If pH values are below 6.5, apply one ton of agricultural ground limestone (preferably dolomitic) to an acre this fall. If phosphorus is medium or higher, do not apply any of this element. If P and K are both low, you may use to advantage a high-nitrogen complete fertilizer, such as 10-5-5, 12-6-6, 15-5-5 or a 20 per cent at a rate to supply at least two lbs. of nitrogen to 1,000 sq. ft.

If P and K are satisfactory you may use a straight nitrogen fertilizer twice a year until soil tests again show that P and K are needed.