

be practically applied by the greenkeeper. The result is that at the next meeting in February as many as a dozen men will have papers showing exactly how they propose to use their appropriations. How many men will be employed, how the fairways and the rough are to be mowed and just how often. How often the bunkers will be trimmed and the traps raked. How the greens are to be mowed.

If he has not enough help, will he cut the greens every other day or will he have to cut nine one day and the other nine the next? If he employs seven men will that answer the question on the eighteen-hole layout, or will he have to do with six and less trimming in order to get the necessary fertilizer or material he thinks he ought to have to keep his greens and fairways up to a standard that the club members have been used to?

Out of this heap, no doubt, the New Jersey greenkeepers will be able to get something tangible so that they can work out a definite program of economical upkeep for 1933.

## Minnesota Notes

By H. E. STODOLA, *Secretary*

**T**HE first meeting of the year was held in the log room of the Superior Golf club, where Mr. Bloomquist saw that we were made comfortable. Mr. E. L. Kidder, Agronomist, gave us a very interesting and instructive talk on fertilizers.

He told us that soils may need more than the three standard elements, nitrogen, phosphorus and potash. In one section of Maine where the fields were heavily fertilized for years, there came a time when the yield became small. For some unknown reason one farmer added 500 pounds of good old Epsom salts to an acre. The yield was exceptionally good. The reason was that the salts supplied gypsum which was needed. Sometimes in desperation we would like to give a tight green a good dose of salts and see what would happen.

### GREENKEEPER'S JOB IS GOOD TURF

**T**HE main job of the greenkeeper is to raise good turf. To raise a healthy stand of grass you must give it plenty to eat. It needs many things. Most of these are supplied in abundance by the soil. However, there are three that are usually deficient in some amounts. They are nitrogen, phosphorus, and potash.

It is up to the greenkeeper to find out in what proportion each green needs these elements. He can take repre-

# BENT HEADQUARTERS



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sentative samples from each green in the fall and test them in the winter when he has time for thought and research.

Chemical supply houses will furnish you with reliable tests for acidity, amount of phosphorus and potash.

There is a standard to go by for a good bent green. It is something like this.

Phosphorus	pH	Potash
150	5.5-6	400

The 150 for phosphorus means 150 pounds to the acre. pH is a scale for acidity and alkalinity. 7 is neutral. Above 7 means alkalinity and numbers below 7 mean acidity. 5.5-6 is ideal for bent grass. 400 for potash means 400 pounds potash to the acre.

Take your soil sample from the green and you get something like this.

Green	Phosphorus	pH	Potash
3	150	6.5	250
Ideal condition	150	5.5-6	400

Therefore this green is good in phosphorus, has plenty of lime because it is a little above 6, but is short in potash. Next year give this green about the same amount of phosphorus you have been giving it, use a little more nitrogen to make the soil more acid, and go almost double on your potash application and you should have good results. Then next fall make the same test and observe your readings. This method of procedure seems very businesslike and should result in good greens.

The last issue of the NATIONAL GREENKEEPER was highly praised and Francis Ouimet's article received much favorable comment. The Greenkeepers are moving in the right direction and must keep up the good work because they have just started.



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## Just Try 'em and See!

Norman Haas, greenkeeper for Transit Valley Country Club at East Amherst, N. Y., tells us all of his mowers, excepting green mowers, are equipped with Budd Blades. One unit bought last February convinced him. They can save time and money for you, too.

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