



The Clearing House



Address all questions relating to general golf course maintenance to this department. Every question answered free of charge by a committee of experts.

Exterminating White Grubs

Having had considerable trouble last year with the white grub, I used ten ounces of sodium cyanide to fifty gallons of water on putting greens. In September, after taking up some of the turf I found there were eight to ten grubs per square foot that the cyanide did not kill. At the strength I used it, the turf was burned to some extent. What is another remedy and how do you use it?

Clayton, Mo.

An emulsion of carbon disulphide applied with a proportioning machine will kill white grubs, but will not insure against infestation another year. It is the best emergency treatment so far known. Professor B. R. Leach, in his work at the experimental grounds at Riverton, New Jersey, has determined that when lead arsenate is mixed with the top soil of a green under construction at the rate of $3\frac{1}{2}$ pounds per 100 square feet, this will insure against white grubs, as well as grubs of other kinds for a period of five years. At the present time he is experimenting with lead arsenate poisoned soil applied in regular top dressings on old established turf. Such a method would be of very little trouble to a greenkeeper, who has only to add the poison to his regular top dressings. However, it will take another year or two to determine whether or not a grub-proof layer of soil can be built up on an established green. It is interesting to know that these experiments already show that applications of lead arsenate at the rate of five pounds per cubic yard of top dressing on established greens already show a marked stimulation of turf growth, a lessening of weed growth and a discouraging effect on angleworms and grubs.

(Members of the N. A. G. A. are urged to conduct an experiment on an established golf green, using lead arsenate mixed with top dressing, and applying the poisoned dressing twice each month during this season. Continuing this experiment next season, by the fall of 1928 every greenkeeper who complies with this request should send a complete report of conditions to the office of the association at 405 Caxton Building, Cleveland.)

Snow Mold in Canada

Our only trouble here is a fungus that seems to form on top of the snow, and when the snow goes off it is deposited on the grass. The fine grasses of the greens it kills outright, and we get bare patches all over the greens. It also appears in the fairways and rough. Where the grass is long it does not hurt. Last winter we covered

the greens mostly with willow, and this year when we took the covering off the grass was fine underneath. Our greens are low lying and undrained, but when we get them going we have no trouble at all during the season. What procedure do you recommend?

Edmonton, Alberta, Canada.

The use of straw or brush covering on such affected greens should not be generally recommended. It has been tried in Minneapolis and Detroit, and although some years it seems to check the amount of injury, in many more cases it seems to greatly increase the amount of damage. This probably depends upon how quickly the change is made from winter to spring. If there is an early thaw and the covering is left on for a long time there is likely to be some damage, whereas if spring is late so that snow remains late and disappears quickly and the greenkeeper removes the covering soon after, there is likely to be much less damage. Perhaps this condition prevails generally at Edmonton, and if so it would perhaps be wise to use a covering. However, this should be tested thoroughly before being definitely recommended.

Sulphur in Water

Last fall we drilled a well 190 feet deep, and this water is almost black with sulphur. What effect will this have on our greens?

Toledo, Ohio.

As a similar condition prevails at an old established nearby club, this question was referred to the other greenkeeper for quick reply. A further discussion of this problem will later appear in this magazine. The greenkeeper, who has had twenty years' experience, writes:

"The water used at our club is secured from a drilled well and an artificial lake. Both come from an abundant coal mine, which contains a large amount of sulphur. We have never had any ill effects from the use of it. However, you should have the water analyzed, as there may be other chemicals in it which are injurious to your greens. Bents and fescues are averse to lime and sulphur, but by all means have an analysis made and make a further report."

Clock Type Practice Green

I have been asked to build a practice green of the clock type, on a corner of the clubhouse lawn. We have good natural drainage with clay subsoil, and need very little grading as it has a gentle slope to the east. We can

build one 75 feet in diameter. What is the most practical diameter, and what suggestions can you give me as to the right way to build such a green?

This is a type of green very little called for. Such a green should be more on the level with slight undulations than all sloping in one direction, and surface drainage should be kept in mind. A green of this kind of 75-foot diameter would be very desirable, as the hole can be located anywhere on the green. The green should first be contoured, with due regard to perfect surface drainage, then covered with about four inches of good top soil, of fine and mellow texture free from stones and sticks. The usual method of sowing seed or stolons, rolling and watering should be followed, taking care that a fine spray nozzle is used on the hose and the watering carefully done to prevent washing out the new planting.

Pine Needles on Greens

Will pine needles left on a new green and covered with top dressing have a bad effect?

If the needles are too plentiful, so that they have covered the grass it would be well to remove a quantity of them. If their presence is only slight, they will probably do no harm, but if there are many, conditions detrimental to the growth of bent may develop, owing to the pitch and resinous materials contained in the needles. They do not decay very rapidly, and although containing a slight percentage of nitrogen, they are of little value as a humus forming material.

Excess Acidity

Is there any danger of getting too much acidity in bent greens by the use of sulphate of ammonia?

All soils have a marked tendency to resist change in

reaction, especially so the heavier soils. Hence repeated applications of sulphate of ammonia are many times required before the desired point of acidity for bents is reached. Except in some special localities it is doubtful if the soil will become too acid, especially if top dressing mixtures are regularly used. It may be possible that you need a balanced fertilizer, such as 12.8.4. or 8.4.3., but before the proper proportions of fertilizer can be determined, you should have your soil analyzed to determine its general quality and acidity. One member of the questionnaire committee asks you to send in a sample of your putting green soil, which he will test and send report direct to you. Mail to the association at 405 Caxton Building, Cleveland.

Forcing New Bent Greens

May I have a few of the most important points about bringing new bent greens into quick playing condition?

DuBois, Pa.

About three weeks after planting, such greens should be ready for a top dressing. This is the critical time in pushing the grass along to make a thick mat of turf. The green can be made or spoiled from this time on. All runners should be kept up by brushing different ways of the green, preferably every day, and by all means cut the new grass every day, top dress every two weeks, and use good judgment in keeping properly watered. This of course depends upon soil and weather conditions. Your top dressing should be mixed in accordance with the type of your soil. If heavy, use plenty of sand and cut down on the manure and top soil. After the green has been planted four or five weeks, sulphate of ammonia added to the dressing will hurry the grass along. Such a green should be ready for play in about six weeks, if care and conditions are right to make it so.

Where The Big Tournaments Will Be Held

June 2—French open Amateur Championship at **Wimereux**.

June 9-11—Long Island Golf Association Amateur Championship at the **Engineers Country Club**, Roslyn, Long Island.

June 9-11—New Jersey State Golf Association Amateur Championship at the **Trenton Country Club**, Trenton, New Jersey.

June 14-16—United States Golf Association Open Championship at the **Oakmont Country Club**, Oakmont, Pennsylvania.

June 14-18—Missouri Golf Association championship, **Meadow Lake Country Club**, Kansas City, Mo.

June 17-18—Pacific-Northwest Golf Association Open Championship at **Colwood Country Club**, Victoria, British Columbia.

June 20-24—Ohio Golf Association Amateur Championship at the **Miami Valley Country Club**, Dayton, Ohio.

June 20-25—Pacific-Northwest Golf Association Amateur Championship at the **Colwood Country Club**, Victoria, British Columbia.

June 20-25—Trans-Mississippi Golf Association Amateur Championship at the **Broadmoor Golf Club**, Colorado Springs, Colorado.

June 22-25—Metropolitan Golf Association Amateur Championship at the **Nassau Country Club**, Glen Cove, Long Island.

June 27-30—Twenty-eighth Annual championship Connecticut State Golf Association at **Hartford Golf Club**.

June 28-29—Massachusetts State Golf Association Open Championship at **Sandy Barr Country Club**, Wayland, Massachusetts.

July 11—British Open Championship at **St. Andrews**, Scotland.

July 18-23—Western Golf Association Amateur Championship at **Seattle Country Club**, Seattle, Washington.

July 27-29—Buffalo District Golf Association Championship at **Wanakah Country Club**, Buffalo, New York.

August 2-6—United States Golf Association Public Links Championship at **Ridgewood Golf Club**, Cleveland, Ohio.

August 17-18—Irish Open Championship at **Portmarnock**, Ireland.

August 22-27—United States Golf Association Amateur Championship at **Minikahda Golf Club**, Minneapolis, Minnesota.

September 1-3—New York State Golf Association Amateur Championship at the **Oak Hill Golf Club**, Rochester, New York.

September 19-24—United States Golf Association Women's Championship at the **Cherry Valley Club**, Garden City, Long Island.

September 28—French Open Championship at **St. Germain**.

November 21-28—Professional Golfers' Association Championship at **Cedar Crest Country Club**, Dallas, Texas.