

The poison bait provides a rapid and inexpensive method for controlling these pests. It may be used on putting greens as well as approaches and fairways. By scattering poison bait early in the season on the turf surrounding the putting greens, much damage from cutworms may be avoided, since these worms frequently migrate to the putting greens from drier turf at considerable distance from the greens.

Caution: Arsenate of lead, Paris green and white arsenic are serious poisons that should not be inhaled during mixing or spreading and should be thoroughly washed from the hands. Unless the bait is lightly and evenly spread it may cause injury to greens due to an excess of arsenic in the larger lumps. Birds are apt to be poisoned by the lumps also.

CONTROLLING CLOVER

Due to unusually wet and cold weather this spring in certain sections clover has become particularly troublesome on golf courses. Until a specific chemical treatment has been perfected, the control of clover must depend very largely upon skillful fertilization.

White clover, like other legumes, usually obtains a large quantity of the nitrogen required for growth from the air in the soil through the activity of bacteria living within swollen growths (nodules) on the roots. Grasses are incapable of obtaining nitrogen in this way and must depend upon the supply available in the soil.

A relatively permanent control depends upon the supplying of enough nitrogen so that the grasses may compete against the clover on better than equal terms. It is important also that plenty of nitrogen be available early in the season. This may involve the application of mineral fertilizer, since organic fertilizers break down slowly in cool weather.

Grasses particularly when closely clipped are limited to a relatively shallow layer of soil, while the clover may absorb water and plant food from a much deeper layer. Grasses are thus placed at a disadvantage during periods when the reserve moisture becomes depleted in the upper layers.

Moderate amounts of phosphorus, potash and lime are probably more nearly sufficient for the grass than for the clover.

It has been observed that dense growing grasses such as velvet and creeping bent are less invaded than colonial bent or seaside bent. Bent or red fescue fairways have less than Kentucky bluegrass turf where these are all successfully grown.

Hard-packed turf usually has more clover than areas receiving less compaction. Any method of correction, whether that of distributing the trampling more evenly or opening up the turf by spiking or forking, should promote a more favorable competition of the grass with the clover. Incorporating organic matter in soil and providing good drainage are other factors in this connection.

There is usually less clover in acid than in relatively neutral or basic turf. However, the grasses are seldom improved in growth as a result of making the soil acid and may be seriously injured if this procedure is carried far enough to eradicate the clover.

Often it is good policy to deliberately burn the turf by applying mineral nitrogen such as sulphate of ammonia or a complete fertilizer high in nitrogen when dew is on the grass. The clover is usually injured more and recovers more slowly than the grass. The severity of the burn may be regulated by the amount of the fertilizer applied and the interval until the fertilizer salt is dissolved from the leaves by watering or rain. Sulphate of ammonia applied in this way at the rate of 3 pounds to 1,000 square feet gives a decided burn to putting green turf. If only a few patches are to be treated, the sulphate of ammonia may be salted on from a large-sized shaker and left a few hours before water is applied. If one is not familiar with this method it is well to try it first on a few patches until the right quantity is determined. The sulphate of ammonia will turn the grass brown as well as the clover, but the grass will recover unless the dosage is too severe.

The burning of clover in this manner should be done in spring or fall while conditions are favorable for a rapid recovery of grass. There is still time to use this method but it should not be attempted from the middle of June until the end of August, except on Northern courses.

SEASONAL REMINDERS

Remove Excess Stolons: During the spring months when creeping bent is growing vigorously an excess of stolons is produced on the surface. This is particularly the case with certain undesirable strains. Unless this excess growth is removed or covered with top-dressing the turf will develop an objectionable grain which will lead to many complaints from players during the summer months.

The best way to remove this excess growth is by raking or severe brushing, followed by close mowing. Such severe raking or brushing should be done not later than the end of May while the grass is still growing vigorously and therefore able to cover up scars quickly. Greens that show a tendency to produce objectionable grain should be given light brushings frequently throughout the summer. Severe treatments, however, should not be attempted during mid-summer months.

Dollarspot: During the month of May dollarspot usually makes its first appearance in most of our bent-growing districts. Frequently these first attacks are neglected and are permitted to make bad scars before fungicides are applied. The first attack of dollarspot should be the signal for applying a heavy dose of mercury fungicide. Even though the first attack is slight it is wise to use a heavy treatment of fungicide. When turf is protected by a generous dose of mercury in May the succeeding attacks of dollarspot and brownpatch are less likely to cause serious damage before additional treatments can be applied. The most economical and lasting of the mercury fungicides used to control dollarspot is calomel. The May treatment with calomel should be at the rate of 3 ounces to 1,000 square feet.