



Common Bermudagrass stand on Squad "C" field, West Point 9 days after planting pre-germinated seed.



Photos by O. J. Noer

Closeup of the Bermuda on the Squad "C" field. Growth of the pre-germinated grass was excellent in spite of the cool nights.

# Roundup

**Pre-germination Experiment • Summer fairway renovation •** **By O. J. NOER**  
• What to do about iron chlorosis • Trend to use of lead arsenate on tees, greens grows during year

Several clubs have used sodium arsenite at heavy rates of 30 to 35 lbs. per acre during summertime in conjunction with fairway renovation programs. Customary procedure has been to use 2,4-D or a mixture of 2,4-D and 2,4,5-T in June to kill broadleaf weeds and clover. By using them then, the interval before seeding has been sufficient to dissipate any adverse effect upon seed germination. Fairways were fertilized generously and sprayed with the heavy rate of sodium arsenite in August, and again a week later at 5 lbs. per acre. They were seeded immediately afterwards and poor, weedy, clover infested fairways were transformed into excellent turf.

Similar treatment in a spring renovation program gave equally good results at the U. S. Military Academy. The method was tried on Squad "C" practice field which was mostly knotweed, clover and had every known kind of crab grass in midsummer. The field was aerified first in several directions, spike disced thoroughly and fertilized generously. This was done in late May. The surface was sprayed with sodium arsenite at 35 lbs. per acre with about 100 gals. of water. Another 5 lbs. per acre were used a week later. The field was seeded immediately with pregerminated common Bermuda grass seed at about 80 lbs. per acre. An alfalfa and grass disc seeder was used, with seed placement  $\frac{1}{2}$ -in. deep. The field was seeded in two directions on June 6, using half the amount of seed each way.

Over-all cover looked good by June 19 due to pregermination. There were no weeds of consequence, only a few scattered crab grass plants. By fall there was a good stand of turf.

A small square section was roped off and not sprayed with sodium arsenite. By mid-June it was a solid mass of knotweed. It was renovated then and the subsequent cover with Bermuda grass was satisfactory by fall.

Various formulations of disodium methyl arsenite were sold in considerable volume in 1956. Its acceptance seems best in the South, probably because discoloration of Bermuda grass is negligible at rates which effectively control many weeds. Kill of sedge has been excellent. It is said to give promise of controlling crab grass, nut grass, dallis grass and even lemon grass. If preliminary good results continue, higher cost of disodium methyl arsenate over sodium arsenite can be justified for use on green and tees. In other areas it must produce superior results to justify the cost difference because discoloration of Bermudagrass is less annoying.

The fairways at Miami Shores were badly infested with weeds of all kinds, including dallis grass, crab grass, and lemon grass. Glen Byrd started a renovation program in June of 1956 after winter play stopped. He used the following mixture to kill weeds: 2 qts. Dimet formulation of disodium methyl arsenate, 1 pt. of their wetting agent, 1 qt. Dow 40 type

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