



Sodium Arsenite Gave Us a 98% Crab Grass Kill

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IN GOLFDOM, February, 1940, there appeared an article I wrote on fighting crab grass with sodium arsenite. Since then there have been many questions (about recurrence of crab grass, the effect upon the bent, etc.) put to me about results one year after treatment.

The first treatment was applied August 17, 1939, the second on August 23, and the third and last on August 31st. As this article is written in November, 1940, I can safely say, a year and two months after the greens were treated, that the turf is in excellent shape. We thought we might have to treat again lightly this year but only 2.6 crab grass plants per 1,000 sq. ft. appeared which precluded the necessity of further treatment and the turf is thicker and healthier than ever before.

Hand Weeding Is Failure

It may be recalled that I wrote in my first article that we hand-weeded 1,500 sq. ft. on one green, taking 144 man hours to do the job. (Three arsenite treatments on the same area took 1 man hour). That piece of turf was left untouched until this year; that is, no effort to eradicate crab grass was made. This year the crab came back beautifully in the hand-weeded piece, while the rest of the green which had been treated with sodium arsenite was pure sea-side bent, and not a single crab plant visible.

At the time of the treatment last year, we estimated 80% kill of the crab and about 15% burn of the bent. On the basis of figures this year we were about 18% off. What we really got was 98% kill. Chickweed is now non-existent, but clover

reappeared, however, less persistent. Yarrow made its return, but dandelions were killed off. The burn estimate was correct.

In my travels last season as secy. of the Pocono Golf Turf Assn., I found a great deal of interest evinced in chemical control of weeds both on fairways and greens. Quite a number of the boys have had fine results on fairway weed control by chemicals, but those who should use it on greens are somewhat afraid of burn of the bent. While it is true that there is some burn and the treated green is unsightly, it is only for a short period and the results achieved more than counteract the bad impression of the temporarily unsightly appearance. Application of 4 oz. of sodium arsenite per 1,000 sq. ft. 3 times, 6 days apart, leaves no permanent damage and if fertilized along with the last treatment, the recovery of the bent is very fast and the damaging weeds have disappeared.

Details of Treatment

Perhaps, in view of the interest shown in this type of weed control, a resume of methods used here might be of interest.

We started our treatment on August 17, but it could be started a bit earlier if the temperature isn't too high. Best results are obtained at below 75 degrees F., dry grass blades, overcast sky and low humidity. We used 4 oz. per 1,000 sq. ft. in 30 gallons of water pumped from a McClain barrel sprayer. After 6 days the same application, and 6 days after that the last shot was applied. The turf should not be watered during this period.

As soon as the last application was dry, we put down seed with the Darnil seeder and then fertilized with 5-10-5, 15 lbs. to the 1,000 with a light topdressing. Two days after this we started keeping the first quarter-inch thoroughly moist with a fine spray until germination of the new seed was well under way. Play was not curtailed at any time during the operations.

Naturally, the members were not gleeful at the appearance of the greens, but this year they were pleased with the results and were glad that they didn't veto the

idea. As I wrote in my first article, the green-chairman, his greenkeeper and the members must be reconciled to brown, spotty and dry greens for awhile, but it's worth it.

A cost accounting might be of interest to anyone who proposes to control and eradicate his weeds with sodium arsenite. Figuring the cost of sodium arsenite (Na_2HAsO_3) at \$.23 per lb. and using 4 ozs. 3 times, the cost per 1,000 sq. ft. is \$.1725 for material. Labor costs will vary according to the hourly rate paid and number of men used in the operation. I used two men, necessary on a hand sprayer, at \$0.40 per hour. Labor cost at that rate was \$0.65 per 1,000 sq. ft. Supplemental costs are seed, fertilizer and labor to apply these essentials. My total cost for sodium arsenite, seed, fertilizer and labor was about \$3.50 per 1,000 sq.

ft., and of that cost, \$2.10 was for seed. It must be remembered that that cost is for a complete job. The seed cost doesn't necessarily have to be figured in the control operation because you can do your fall seeding at this time and that is already budgeted. So the cost is really only about \$1.40 per 1,000.

As I said in my previous article, my methods may not be adaptable to any or all conditions, but are a basis on which to proceed. My advice to anyone trying the arsenite treatment for the first time is to consult your state agricultural experiment station, or your county agent. But I will say, that for cost, simplicity and net result, there is no weed control comparable to chemical weed control, and if you've got a weed problem, try it and I know you'll be more than pleased.

Short Course Data Supplementing more complete information published in our January issue

Purdue Short Course on Feb. 25-26—Purdue University's 4th annual two-day greenkeepers short course will be held in the faculty lounge, Memorial Union building, February 25-26. The conference is being held under the direction of the Purdue division of physical education and the dept. of agricultural extension, with the Indiana Greenkeepers Assn., Indiana PGA section, and Indiana Golf Assn. cooperating.

Speakers already lined up for the session include John Monteith, Jr., USGA Green Section; G. D. Scarseth, O. J. Noer, A. L. Brandon, O. C. Lee, and W. H. Diddell. Annual greenkeepers banquet will be held Tuesday, February 25, at 6:30. Herb Graffis, editor of GOLFDOM, will be toastmaster.

Inquiries regarding the Purdue conference should be addressed to M. L. Clevett, Field House, Purdue U., West Lafayette, Ind.

Greenkeepers at Iowa Mar. 4-5—Tenth annual two-day short course for greenkeepers at Iowa State College will be held March 4-5. Anyone interested in fine turf problems is eligible to attend the sessions. Registration headquarters will be maintained at the Memorial Union on the college campus; a fee of \$1.00 will be charged to help defray expenses. Visitors from a distance will find ample accommodations in Ames. Hotels in the city are the Sheldon-Munn, and Hotel Ames. Reserva-

tions should be made in advance, however.

Speakers at the conference will include H. B. Musser, Penn State College; O. J. Noer, Milwaukee Sewerage Commission; J. N. Martin, ISC; Joe Benson, pres., Iowa Greenkeepers Assn.; C. G. Yarn, Woodside GCse, Des Moines; B. S. Pickett; Herb Graffis, editor, GOLFDOM; and S. W. Edgecombe, ISC.

Banquet will be held March 4 at 6:30 at the Sheldon-Munn hotel; toastmaster will be C. G. Yarn. General chairman of the conference is S. W. Edgecombe, Iowa State extension horticulturist. For additional information regarding the conference, address Edgecombe, c/o ISC, Ames, Ia.

Minnesota Short Course Details—Minnesota Greenkeepers' annual educational conference will be held at Nicolett Hotel, Minneapolis, Minn., March 5, 6, 7.

Program covers a wide variety of turf technical, management and policy problems. Annual meeting of the Minnesota organization will be held Wed. evening, and the annual banquet Thursday evening.

Among speakers will be Prof. L. E. Longley, Prof. Louis Sands, Dr. A. H. Larson, Dr. C. O. Rost, Dr. H. K. Schultz, Franklin B. Hanley, and Ian Tervet of the University of Minnesota, Prof. H. B. Musser, Penn State College, Martin Rasmussen, (greenkeeper, City of St. Paul municipal courses), O. J. Noer, C. E. Stewart and Herb Graffis.