UNITED STATES GOLF ASSOCIATION



GREEN SECTION WESTERN OFFICE

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· Western Turfletter ·

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SOIL STERILIZATION

FOR

BETTER TOP DRESSING

An explorer was once asked, "In the jungle, will the wild beasts harm you if you carry a torch?" - "It all depends," he answered, "on how fast you carry it."

In today's battle to maintain the best in golfing turf, the golf course superintendent and green chairman sometimes have to run fast just to maintain present turf conditions. Whether or not they outrun the competition and actually bring about turf improvement (or be swallowed by it) depends almost entirely upon good planning, organization and an adequate budget.

Certainly one phase of good putting green management is an adequate and sensible top-dressing program. This was discussed in detail in the November - December 1961 Western Turfletter. Now an important consideration (and one receiving an ever increasing amount of interest throughout the country) in planning this work is a program of sterilizing or fumigating the soil mixture. Clean composted soil, free of viable weed seeds, is essential for the top-dressing of greens and all fine turf areas including seed beds. Sterilized composted soil, 100 per cent weed free, can be produced!

Here are some of the soil sterilants now available. Also included are notes on their use and approximate cost:

Methyl bromide - is a deadly gas that must be used with caution. It is very effective on weeds and nematodes and should be used when temperatures are 60 - 65 degrees or above. The rate is 10 to 20 lbs. per 1000 sq. ft., and the treated area must be covered with an airtight and chemically inert cover (plastic tarpaulin). Leave covered for 48 hours for best results. Planting may be accomplished two to three days after cover is removed. Methyl bromide may be purchased with a warning agent added (chloropicrin) to reduce possible accidental inhalation. The cost is \$7.50 to \$15.00 per 1000 sq. ft., add labor and tarpaulin.

 $\frac{\text{Vapam}}{\text{Vapam}}$ is a trade name for sodium N - methyl dithiocarbamate. Other names are SMDC and VPM. It gives good control of most weeds and nematodes. It is usually applied at $2\frac{1}{2}$ gallons per 1000 sq. ft. (1 quart per 100 sq. ft.) and does

best when applied as a drench. For composting, apply at rate of 9 oz. per cubic yard of soil. After Vapam has been applied, irrigate with enough water to seal the surface to keep the Vapam in the soil. Additional frequent and light irrigations are very helpful in keeping the Vapam in the soil. At the end of 14 days, cultivate the area and allow about two more weeks before planting. Approximate cost is \$7.50 per 1000 sq. feet.

Calcium Cyanamid - When properly used, this chemical will do an outstanding job of weed control at a very low cost. It should be used at the rate of 75 to 100 lbs. per 1000 sq. ft. and worked into the upper two or three inches of seed bed. For composting, add 13 lbs. of calcium cyanamid to each cubic yard of soil and mix thoroughly. After mixing, irrigate moderately if soil is dry. At least four to six weeks are needed (during warm weather) or eight to twelve weeks (during cool weather) for the calcium cyanamid to break down and bring about weed control. Planting must be delayed until after this period. The material sells for approximately 5¢ a pound.

Mylone - is a trade name for a chemical known as DMIT. It is effective on weed seeds and nematodes. It must be applied at the rate of 10 to 12 lbs. per 1000 sq. ft., and should be cultivated into the soil or applied as a soil drench. In composting, mix 2 lbs. to each cubic yard of soil. Follow the application of Mylone with an irrigation. A wait of 15 to 20 days is needed before planting. Approximate cost is \$1.50 per pound for the material.

Sodium Arsenite - has been used when preparing a seed bed for a green or nursery area. (Note: this is not suggested for top-dressing preparation). O.J. Noer reports that Poa annua has been eliminated from seed beds by spraying sodium arsenite at the rate of ½ lb. per 1000 sq. feet. Follow by harrowing the treated area. Repeat this procedure for a total of twelve times. Allow at least one week before planting.

Method To Determine When It Is Safe To Plant Or Use Sterilized Soil

Because of varying weather conditions, temperatures and irrigation rates, it is often difficult to determine exactly how soon sterilized soil may be used for top-dressing or planting. A simple test is possible.

Take small random samples of the treated soil and mix them in a pot or flat. Sow radish seeds in the soil. If the seeds germinate normally in a few days, the soil is ready for use.

EDUCATIONAL TURF CONFERENCES IN THE NEAR FUTURE

January 26, 1962 - 9:00 A.M. - USGA Green Section Educational Program
Biltimore Hotel, New York City, N. Y.
Mr. William C. Chapin, Chairman

January 29 - Feb. 2, 1962 - International Turfgrass Conference and Show
Deauville Hotel, Miami Beach, Fla.
Dr. Gene C. Nutter and Mr. Roy Nelson, Chairmen

February 6 & 7, 1962 - 9:00 A.M. - Oregon State Turfgrass Nursery Conference Oregon State University, Corvallis, Ore. Dr. Norman Goetze, Chairman

"WONDERFUL LADY" - PENS POEM TO GOLF

From the City of Long Beach, California and the desk of Mr. B. K. Jones, Director of Golf we received the following poem. It was presented to Mr. Jones by Jane Carsten, "a wonderful lady past sixty years old who plays golf three or four times a week."

Remember the days of yesteryear
when greens were made of sand
And fairways framed with thorny rough?
Today, there are few, who would understand.

And on and on, through the course of time there were better courses made; And I've found diversity and charm on the ones that I have played.

But picture a course as fair as ours, covered with carpets of green; From the brow of the hill to the last fairway it's as lovely a sight as eyes have seen.

Yet, there are some, who will sing their gripes
--perhaps not meant to be-But these are a few of the ones I've heard
from the first to the eighteenth tee:

"I could have made a better drive but the tee was slick and wet." He could not believe he moved his head when the ball and club-head met.

"My second shot would have made the green but a tree was in my way." The next he dubbed, and tore the turf and let the pieces lay.

We face new problems day by day and none are quite the same--So it's not the course where weakness lies, but the way we play the game.

And as I look o'er the lush fairways
where thousands of feet have trod,
I will say aloud..."is there one of us
who could do a better job?"

Jane Carsten Recreation Park Golf Course

NEW EDITION OF 'TURF MANAGEMENT' BOOK NOW AVAILABLE

The revised edition of "Turf Management", a 368 page book by H. B. Musser has just appeared. This USGA publication is a comprehensive handbook on golf course maintenance that is an authoritative and practical guide to greenkeeping. It embodies the results of many years of research, experimentation and practices by experts of the USGA Green Section and other scientific agencies.

Copies of the publication are available for \$10.95 each from the USGA, 40 E. 38th St., New York 16, New York or your local book store. McGraw-Hill is the publisher.

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