Natural fungus may hold secret to safe dandelion killer

An environmentally safe way to destroy dandelions without harming the surrounding grass may not be far off. Prof. Lee Burpee, Environmental Biology, plans to take a natural fungus that kills dandelions and adapt it for commercial use.

Burpee, who is director of the Turfgrass Institute, says he hit on the idea by accident when a colleague mentioned seeing a dandelion that seemed to be dying off because of a fungus.

Burpee found diseased dandelions in the field and brought them back to to the laboratory, where he isolated the fungi and bacteria from the plants. "Some of the fungi are doing an excellent job of killing dandelions," says Burpee. "One species kills an eight week old dandelion in just four days."The next step is to grow dandelions in turfgrass plots at the University-operated Horticulture Research Station in Cambridge, and innoculate the plants at different stages to observe what happens.

Burpee and his colleagues have collected seeds and are staggering the seeding over a three month period. In this way, he says, they will be able to see how the fungii affect plants at different stages of development. Because dandelions are perennial plants, the researchers will do another study next spring. "We want to know the exact age of the plants we're innoculating", says Burpee. It may turn out that the innoculation will have to be done every second or third year." The research looks promising in the lab trials, he says, but the field trials will "make or break it".

Burpee, a turfgrass researcher for 14 years, says there has been considerable interest in the past five years in the development of biological pesticides and herbicides. A naturally destructive substance like fungus has an environemtal advantage because it is biological, not chemical, he says. That means the toxic effects on humans will be minimal. "The fungus already exists in nature, and we have not changed it in any way."

The researchers have yet to determine the effect of the fungus on other broadleafed plants. Grass is not susceptible, but other plants may be. "We're working on a method to keep the fungus from sporulating so it won't move to other plants", he says.

Considerable government and private interest has been shown in Burpeee's research, with funding commitments coming from the Ontario Ministry of Agriculture and Food, The Natural Sciences and Engineering Research Council, the Ministry of the Environment, and Philombios, a Saskatoon-based biotechnical firm.

[From AT GUELPH, July 9, 1987]

Dr. Kurtz applauds turf's 'new breed' in Ohio Turfgrass Show Speech

"We have a new breed of person coming along," says Dr. Kurtz of the sports turf segment of the green industry. "It's no longer 'five yards and a cloud of dust'... but we may still be as much as 70 years behind the golf course superintendents."

Kurtz, speaking at the Ohio Turfgrass Foundation conference, further noted that "the sports turf industry has never recovered from the 'wonder carpet'". He did say, however, that some new developments could help athletic field managers narrow the gap.

Specifically:

- geotextiles, which affect better drainage and warm frozen turf
-pre-germination tactics for quicker growth
-turf colorants for dormant turf
-improved turfseed varieties
-sod anchoring for new sod.

"The athletic segment of the industry is just starting to blossom," claims Kurtz, who is executive director of the Sports Turf Managers Association.

[from Weeds Trees & Turf, February, 1986]

DON'T FORGET!

To mark the conference date of March 9, 1988 on your calendar.

Soak trimmer line for longer use

A tip from Thomas M. Cline, Silver Springs, Md.: "Each spring we buy large spools of nylon line for our trimmers. Immediately, we submerge the spools in a drum of water. As we need to refill the trimmer head, we take a spool out of the water and cut off the required amount. The soaked line lasts twice as long as unsoaked line. It is a cheap technique that cuts nylon line purchase by 50%.

Apparently the nylon line "sets" in coils on the spools; the water penetrates the porous nylon, making it more pliable. This is especially true for for line that has been stored for a long time.

Numbers of lawngrass seed per pound

Lawngrass seeds are smaller than you might think. Kentucky bluegrasses have more than 1,000,000 seeds per-pound; fine fescues have 500,000 seeds per pound; turf-type tall fescues 300,000 and perennial ryegrasses 225,000 seeds per pound. The smallest lawngrass seeds are colonial bentgrass. There are more than 6,000,000 seed of these in each pound. Lawngrass seed purity should be close to 98% and seed germination about 85%. This guarantees good healthy seed that will produce a lot of vigorous lawngrass plants at a very small cost per plant.

[Metric conversions, anyone?]

A Final Note

We sincerely hope that you have enjoyed this first issue of the Sports Turf Association Newsletter. We invite comments and suggestions for future articles from all of our members.

Send your comments to the publisher: Rita Weerdenburg c/o Horticulture Review, P.O. Box 653, Oakville, Ontario L6J 5C1 [416] 878-1518.

Or better yet, you are invited to write or call a board member at the following address:

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