

TURF TWISTERS

Ataenius spretulus; TEN ADULTS OR THIRTY GRUBS

Question: What materials can I use for control of the *Ataenius spretulus* beetle? (West Virginia)

Answer: In many states, only Proxal 80 SP is labeled for use against *Ataenius spretulus*. However, Diazinon, although not labeled specifically for *Ataenius spretulus*, may be used in some states if a recommendation for control is filed with the concerned State Department of Agriculture. In West Virginia, the 14G granular formulation has been somewhat more effective than the AG500 formulation. Further, West Virginia recommends no control be attempted unless there are at least 10 adults per square foot or at least 30 grubs per square foot.

EARTHWORMS; FORWARD TO THE PAST

Question: What can be done to discourage earthworms on our greens in the post chlordane era? (New York)

Answer: Carbaryl applied for sod webworm and cutworm control will work, but without the long residual effectiveness of the chlorinated hydrocarbons. Before the era of modern pesticides (pre World War II), greenkeepers had success with low-soil pH ranges. This fact has recently been supported by research at Washington State University, where sulfur applications discouraged earthworm activity.

NEW CAUSES OF OLD DISEASES

Question: Please shed some light on the "newly recognized causes of plant diseases." (California)

Answer: Scientists have only recently discovered that agents called "mycoplasma-like organisms (MLO)," viroids and novel bacteria cause plant diseases formerly attributed to viruses. The MLO group can infect both plants and animals, including man. In plants, their activity is restricted to the phloem or food-conducting cells. Leafhoppers carry them from plant to plant. They induce stunting, yellowing and various types of malformations.

Viroids are small, naked viruses. Although extremely minute and carrying very little genetic information, they are capable of causing diseases such as chrysanthemum chlorotic mottle.

Novel bacteria have only recently been implicated in diseases thought to be entirely due to viruses in the past. They do not fit the mold of other gram positive bacteria.