

## trimmings

**FINGERPRINTING PLANTS** biochemically is one of the most fascinating areas of research today. James L. Brewbaker, University of Hawaii horticulturist, is fingerprinting plants by distinguishing various enzymes. Known as gel electrophoresis, the method is employed in varietal description where plant varieties are otherwise indistinguishable. This method applied to hybrid corn would permit identification of 2,247,370,997,760 different parent or inbred lines of this important crop.

**A PROBLEM WEED INTO PROFIT** is how a midwestern animal scientist views water hyacinth. Looking at the weed in terms of forage, R. L. Vetter, Iowa State University, says that 84 tons of plant material, or about five tons of dry matter, were produced per acre in a lagoon. Processed hyacinths have some feed value when fed at one-third of the total ration. One new area to consider is the use of water hyacinths in lagoons and sewage ponds. The actively growing plant can remove about 500 pounds of nitrogen and 18 percent of the phosphorus per acre of lagoon. Possibilities also exist for use of water hyacinths as an organic fertilizer. Spread it with conventional manure spreaders.

**ARS SHADE TREE AND ORNAMENTAL PLANTS LABORATORY** at Delaware, Ohio, will command the spotlight at the Wholesale Nursery Growers of America, Inc. annual meeting at the Arlington Park Towers Hotel, Arlington Heights, Ill., January 14. "A Day at Delaware" will feature speakers on genetics and breeding of elms and maples, vegetative propagation, woody plants as environmental filters, disease control in landscape plants, research trials, and others.

**LD<sub>50</sub>** is a term batted around in chemical circles. It means a dose of sufficient quantity to kill half of a test population. It gives a measurement of the potency of the chemical in relation to other chemicals. Promotion of the lethal dose is the latest fad in teaching the public about toxicity of environmental protection chemicals. Walter Weber, technical director of pesticides at the Indiana Farm Bureau Cooperative, has created a large display promoting this theme. Based on acceptable toler-

ances and residues permitted on a crop, an average 150 pound man would have to eat 90,000 pounds of apples to ingest a lethal dose the same as Captan fungicide. Of corn threatened with atrazine, this person must eat 1,848,000 pounds.

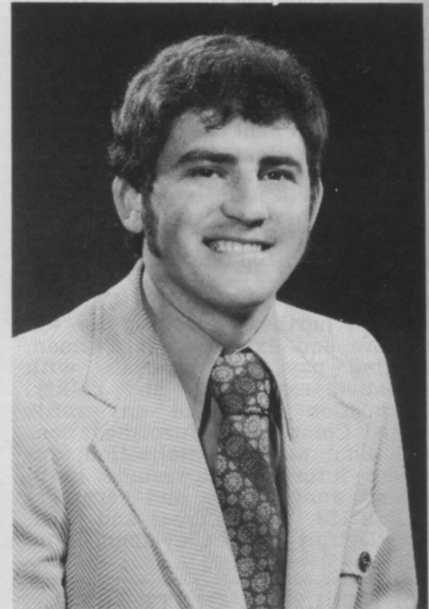
**ANOTHER VIROID** has been isolated by a USDA scientist. What's a viroid? It's a newly discovered class of infectious particles smaller than a virus. Dr. Theodor O. Diener, pathologist with the Plant Virology Laboratory of USDA's Agricultural Research Service (ARS), said the second viroid has been shown to cause chrysanthemum stunt disease. It was isolated from the leaves of affected plants. The first viroid was found to be the agent of potato spindle tuber disease.

Since two different viroids have now been shown to exist and to cause specific diseases. Dr. Diener is convinced that viroids "are not unique anomalies and are very likely widespread in nature." Other plant diseases, as well as animal and human diseases, such as multiple sclerosis, infectious hepatitis and some types of cancer, may be caused by viroids. "Such diseases," Dr. Diener said, "have some common patterns that lead one to suspect a viroid origin."

**PRESCRIPTION ATHLETIC TURF** is proving to be viable alternative to artificial turf, wherever wear is not excessive. And the cost of installation is much lower per unit area. If it rains just turn on the suction pumps and pull the water down into the porous root zone before the surface is saturated. Heating cables extend growing season, prevent frozen soil and aid in snow melting. Vented field covers conserve moisture and heat, and minimize frost during fall, winter and spring. Add a tight sod of bluegrass, zoysia or bermuda and you have a turf that can counteract the extremes of weather. The system was developed by two Purdue University agronomists who call it PAT (prescription athletic turf).

**BACILLUS THURINGIENSIS BERLINER** products must now be expressed in terms of International Units (IU) of potency. B.t. is a biological compound used to control insects. Labels must now state potency per milligram of product as determined by bioassay. A product hav-

ing a potency of 500,000 IU per milligram will be considered to consist of 100 percent active ingredients and the percent of active ingredients will be calculated on this basis.



Dennis Holewinski

## Environmental Services Started By Asplundh

The Asplundh Tree Expert Company has broadened its scope of operations by forming a new Environmental Division to help utilities surmount the evergrowing problems of ecology.

According to Hyland Johns, vice president, the new Asplundh Environmental Division "will provide a single source of responsibility in ecological matters for utilities which was previously unavailable and will be staffed by a group of experts with a wealth of experience in environmental planning and landscape architecture."

The new division will be administered through the offices of all field division managers of the Company and offers utilities the following services: land use planning, landscape construction and planting, substation planting design and construction plans, transmission right-of-way selection, recreation area development, specifications and guidelines on soil, vegetation, wild life and other resource problems.

The Asplundh Environmental Division is headed by Dennis Holewinski, a graduate landscape architect. He brings considerable experience in the field as a former member of the staff of the Illinois Highway Department.