

Turgeon to head PSU Agronomy

UNIVERSITY PARK — Dr. Al J. Turgeon, from East Lansing, Michigan, has been named head of the Department of Agronomy at The Pennsylvania State University, effective January 27, 1986.

He succeeds Dr. James L. Starling, who in March 1985 assumed the position of associate dean for administrative management in the College of Agriculture. Dr. Daniel D. Fritton served as acting head of the Department of Agronomy since Dr. Starling's departure.

Dr. Turgeon served as group vice-president for support services with the Tru Green Corporation, East Lansing, Michigan, since July 1983. Tru Green is the second largest and fastest-growing lawn service company in the United States, with estimated sales of \$40 million in 1985.

While with Tru Green, Dr. Turgeon was administratively responsible for research and development, technical services, purchasing and distribution, engineering services, training and safety.

Before joining the Tru Green

Corporation, Dr. Turgeon was professor and resident director of research at the Texas A&M Research and Extension Center at Dallas from January 1980 to July 1983. As resident director, he managed the unit's research program, physical plant and other property of the Texas Agricultural Experiment Station at Dallas.

Prior to 1980 Dr. Turgeon was associate professor of turfgrass science in the department of horticulture, University of Illinois at Urbana-Champaign. One of his principal research accomplishments there was the characterization of thatch and thatch-like derivatives. He also demonstrated how integrating cultivar selection and herbicides can sustain weed-free turfgrass communities.

After receiving his bachelor of science degree in crops and soils from Rutgers University, Dr. Turgeon went to Michigan State University, where he received his master's degree in 1969 and his doctorate in 1971, both in crops and turf weed control.

Dr. Turgeon is a member of the American Society of Agronomy



Dr. Al J. Turgeon

and the Crop Science Society of America. He is an honorary member of numerous golf course superintendent associations in Illinois, Wisconsin and Michigan. In 1977 he received an Outstanding Achievement Award from Weeds, Trees, and Turf magazine.

The author of more than 200 scientific publications, Dr. Turgeon has also written a textbook entitled "Turfgrass Management," originally published in 1980. Revised in 1985, it is the most widely used text on this subject in American universities

Wheat fingerprints help catch thieves

WASHINGTON — A U.S. Department of Agriculture researcher has created a computer bank of wheat "fingerprints" so accurate that it will verify a patented wheat—or even catch a thief.

A court accepted the bank's wheat "prints" as evidence in a 1983 grain theft case, and today wheat breeders and federal plant variety protection officials are increasingly using the bank. It is becoming especially useful for identifying plant varieties that have been patented.

Chemist George L. Lookhart of USDA's Agricultural Research Service says wheat varieties are distinguished by a unique pattern, similar to a fingerprint, formed by separating either of two major protein classes. These unique patterns can be stored in a computer's memory. This method is as accurate as using fingerprints to identify humans, especially two people having the same sex, height, coloring, facial structure, body shape, and weight.

One of the first examples of how the computer bank could be used

of wheat near Atchison, Kan., just after over \$100,000 worth of wheat had been reported missing from the Farmers Co-op Elevator at the Atchison River Terminal.

The thieves couldn't have picked a worse time.

Lookhart had put identifying data into the computer only a few months earlier on the 88 most commonly grown domestic wheat varieties. He compared the patterns, or prints, of wheat samples taken from the trucks and elevator with the 88 profiles in the computer bank. He did the study at the agency's U.S. Grain Marketing Research Center in Manhattan, Kan.

"The computer positively identified the seized grain in the trucks as being of the same variety as that in the Atchison River Terminal elevation," says Lookhart, who presented the evidence in court.

According to Lookhart, one of the proteins, gliadin, was used to identify the wheat varieties in the court case. But the other major protein, glutenin, also can aid in identification.

He separates the gliadin proteins into bands using a standard technique known as polyacrylamide gel electrophoresis (PAGE). It distinguishes the wheat proteins based on differences in their molecular size and weight.

"After an electric current is passed through the gel and it is stained, it looks like gray Jell-O with dark bands that resemble rungs on a ladder," Lookhart says.

Once the patterns are formed, Lookhart measures the distances and intensities of the bands. He then compares them against the computer-stored data bank. A PAGE analysis can take 6 hours but as many as 80 samples can be done in that time.

According to Lookhart, the computer bank's samples will be expanded as new varieties become available.

Agency researchers Berne L. Jones in Madison, Wis., and Duane E. Walker at Manhattan, worked with Lookhart in developing the technique.

Grange proposes Gramm-Rudman dairy alternative

HARRISBURG — The Pennsylvania State Grange favors maintaining a price support level as an alternative to the Gramm-Rudman dairy cuts. These proposed cuts would mean a loss of at least 40 cents per hundredweight of all milk produced starting March 1, 1986 until Oct. 1, 1986.

State Master Charles E. Wismer said the Grange is opposed to the Gramm-Rudman cuts on behalf of the dairy farmers. "The dairy farmers would lose \$320 million between March and October with the Gramm-Rudman cuts," said Master Wismer. "These cuts are well over the 43 percent reduction of the commodity credit corporation," added Master Wismer.

As an alternative, the Grange recommends a maximum 10 cents hundredweight assessment on all milk produced. This assessment would cover the Gramm-Rudman mandate and amount to less than \$80 million.

"The Grange understands legislation will be introduced in Washington, D.C. this week which would authorize this approximate 10 cent assessment and plans to actively support this legislation," said Master Wismer.

The Pennsylvania State Grange is the state's largest farm organization representing 42,000 farmers and rural property owners in the Commonwealth.

Today, farmers are trying to find any way to save money. Some might even be tempted not to use Furadan® insecticide and trust their luck that insect damage won't be too severe.

But the hard fact is this. The money you'll save by skipping the Furadan planting treatment will seem small compared to the money you'll lose when you get a bad insect infestation.

It just makes good sense to buy insurance.

Furadan.

For over 17 years Furadan has proven effective against the worst threats to your corn crop. Insects like rootworms, corn borers and nematodes. As well as ten other pests that significantly damage your corn.

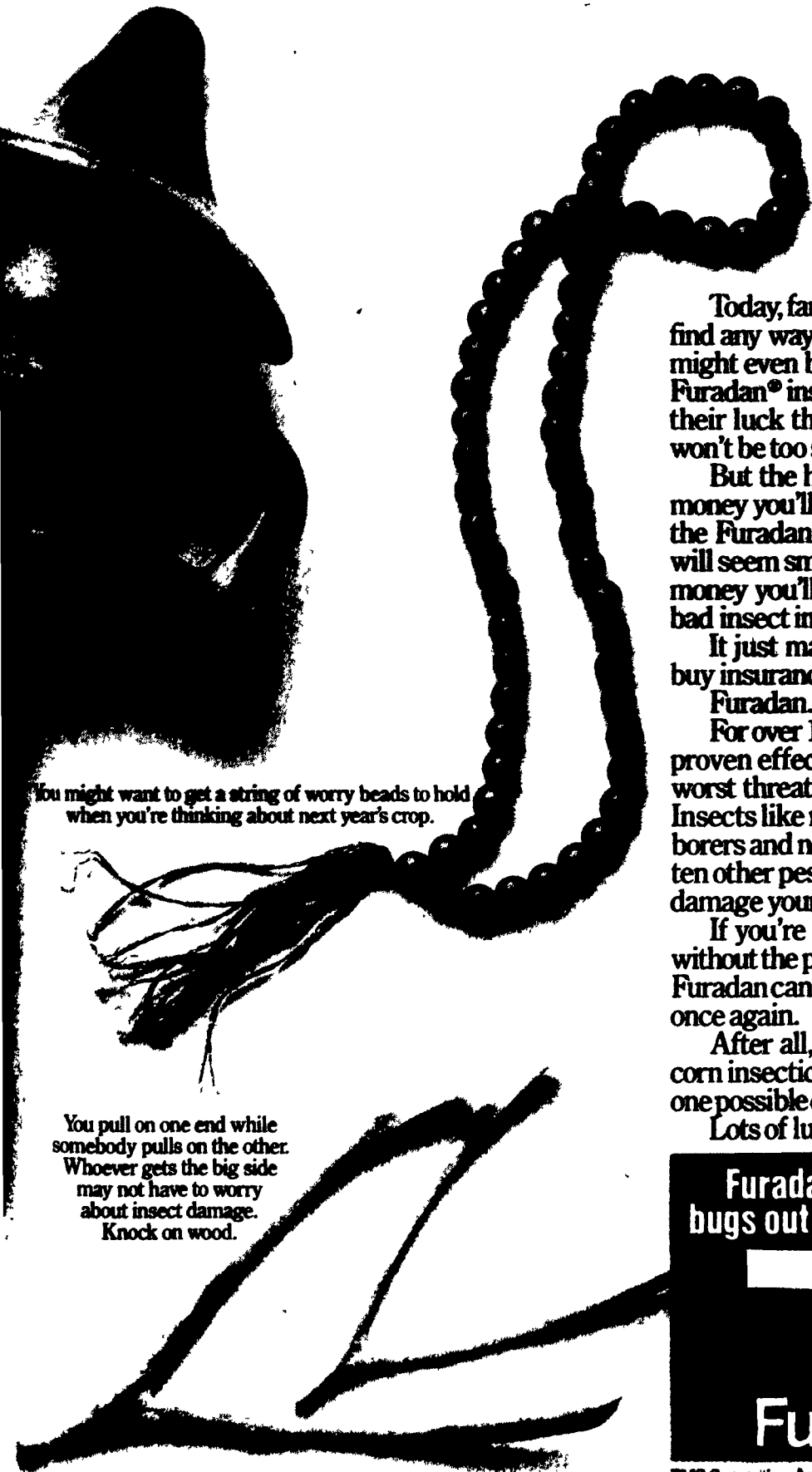
If you're thinking about doing without the proven protection that Furadan can offer you, think it over once again.

After all, without Furadan corn insecticide, you'll have only one possible defense against pests. Lots of luck.

Furadan. It gets the bugs out of corn farming.

Furadan

FMC Corporation, Agricultural Chemical Group, 2000 Market Street, Philadelphia, PA 19103. Furadan and FMC are registered trademarks of FMC Corporation. Furadan is a restricted use pesticide. Read and follow label directions. ©1986 FMC Corporation



You might want to get a string of worry beads to hold when you're thinking about next year's crop.

You pull on one end while somebody pulls on the other. Whoever gets the big side may not have to worry about insect damage. Knock on wood.