



WEEK OF SEPTEMBER 24, 1989

## STATION NOTES

### BETTER YIELD IS OBJECTIVE OF NEW RESEARCH PROJECT

The promise of increased domestic and overseas markets for buckwheat and buckwheat products has prompted a new thrust in efforts to make the crop more profitable and attractive to New York State and other growers.

Five organizations have pooled their research resources and are funding a \$115,000, one-year program at Cornell University facilities at the Station and in Ithaca. The research program aims to study certain seed-producing limitations that have resulted in relatively low crop yields for buckwheat, not currently considered a major cash crop.

"It is our hope that ways can be found through research to make more consistent the percentage of

seeds produced, even on the same plant," said Clifford W. Orr, a vice-president of The Birkett Mills, one of the five grant participants. "Some buckwheat blossoms are germinated and produce fruit well. But others, on the same plant, never germinate. Still others do, but they mature too quickly and fall to the ground. Once that happens, they are lost," he said.

"It is generally felt that more growers would be interested in raising buckwheat if they could make more dollars per acre, and this depends almost exclusively on crop yield," Orr said.

Cyrus Samimy points out that a buckwheat plant having as many as 2,000 blossoms can produce as few as 53 seeds. While inconsistent pollination, usually by bees, accounts for some seed loss, the plants' genetic and chemical makeup may be another explanation.

"We hope to study the physiology and biochemistry of buckwheat, the effects of controlled pollination efforts and other breeding and growth-regulating techniques to better understand the problems and possible solutions," Samimy says. One effort will involve the crossing of buckwheat with a closely related plant, tartary, which has a much higher seed-producing capacity.

In Ithaca, the research thrust headed by agronomist William J. Cox is expected to center on studies of substances, such as sugars and amides, that exist within buckwheat plants, and ways in which

*(Continued inside.)*

### POLICIES, PROCEDURES AND PEOPLE

#### Who's New:

Sibylle Krieger is a new post-doc working on malolactic starter cultures for wine with Thomas Henick-Kling in Food Science.

#### News List Available:

A complete and up-to-date listing of daily and weekly newspapers and other news publications worldwide is now available for anyone seeking such information. Please call Communications Services, x252.



*Clifford Orr, right, of The Birkett Mills, and Cyrus Samimy discuss the maturation rate of buckwheat kernels in a Station field plot.*

*Believed to be a NYS First***USDA OKs FIELD TESTING OF GENETICALLY ALTERED PLANTS**

The United States Department of Agriculture has given a Station scientist permission to field test cucumbers that have been genetically altered to tolerate a common yield-reducing virus.

Dennis Gonsalves, Plant Pathology, will conduct the testing program, the first transgenic field testing permitted by the USDA in New York State and believed to be the first such testing of cucumbers ever attempted.



*Gonsalves*

(CMV). CMV causes severe disease reactions on leaves and fruit that result in lower yields and reduced crop quality. CMV does not affect humans. Following a thorough examination of the research proposal, the USDA's Animal and Plant Inspection Service has declared that no environmental hazards associated with it exist.

The testing program will continue through the fall. It is being underwritten by a \$134,000 plant viral research project grant from The Upjohn Company of Kalamazoo, Michigan.

Gonsalves and three Upjohn colleagues, Gerald Slighton, Paula Chee and Hector Quenada, produced transgenic cucumber plants with the coat protein gene of CMV. These plants are now being field tested in Geneva for their resistance to the virus.

It is an effort to combat "cucumber mosaic virus"

### **NOW 3 YEARS OLD, 'FarmNet' HAS HELPED 2,700+ CALLERS**

Since its establishment by Cornell Cooperative Extension in 1986, 'Farmnet,' a help-line for people in the agricultural business, has assisted more than 2,700 callers. Boosted by public-service advertising, such as the one shown below, FarmNet answers questions pertaining to financial, legal, personal and family problems. All FarmNet services are free to users.

#### **“The weather's**

**upset all this  
year's plans for  
the farm. And  
we'll feel it even  
more in six  
months.”**

**“Don't wait six  
months. Call  
NY FarmNet  
now. They can  
give you some  
advice.”**

**NY FarmNet**

**1-800-547-FARM**  
Monday to Friday  
10 a.m. to 5 p.m.

NY FarmNet is a free information, referral, and consulting program for New York farm families, sponsored by Cornell Cooperative Extension.

Cornell Cooperative Extension provides equal program and employment opportunities.

### **SAFETY-WISE ADVICE**

Good lighting will prevent falls around your home. Make sure every stairway and hall is adequately lit. A simple night light will help in each bedroom, bathroom, and hallway. Finally, be sure garages, sheds, and cellar areas are well lit. A safety message form Cornell Life Safety Services.

### **CLASSIFIEDS**

**SURPLUS:** Left-over 88-89 NY Telephone-Geneva phone books are available for anyone who would like one. Contact Judy Birkett, x202.

**WANTED:** Two or three-bedroom furnished apartment for visiting Mexican scientist and family arriving Oct 1. Ground floor preferred. Call Malcolm Bourne, x278.

**WANTED:** Visiting scientists (married couple) seeking small furnished apartment from October 1 through December. Call Don Splittstoesser, x205.

**FOR SALE:** Boat, 15-1/2 ft., Lone Star "Mustang" w/50 hp Chrysler motor. Convertible top. Full mooring cover, extras. Needs cleaning. Make offer. 536-7275 or 536-3573 weekends.

**FOR SALE:** Hardy garden mums. Nice colors. \$2.75 each. Dried flower bunches and arrangements. Stark Street Gardens, Waterloo. Open Sat. and Sun. 9am-6pm. John Ludwig 539-3155.

## CALENDAR OF EVENTS

Wednesday, September 27, 4:00 p.m.,  
director's office, *Geneva department chairs' meeting*

### BUCKWHEAT RESEARCH PROJECT

*(Continued from P.1)*

possible functional imbalances of these elements can negatively affect seed yields and plant welfare.

Higher seed yields and more product is sorely needed.

"The increased market for buckwheat overseas in such countries as Japan has proven to be consistent, rising by about 2 percent a year," said Harris Peterson, general manager of Minn-Dak Growers Ltd. of Grand Forks, ND, a seed and grain processor/exporter and another supporter of the research program. "The Japanese use buckwheat flour in making a high-quality, gourmet-type noodle called 'soba'," he said.

"Japan would rather import from the U.S. because of better quality and containerization methodology than they would from other producing nations such as China or Canada," he added. "But, not enough American farmers are growing buckwheat, thus the demand is larger than the supply." He said that Japan imports about 45,000 tons of U.S. buckwheat a year, nearly half of that from Minn-Dak alone.

Today's farm economy has resulted in the discontinuance of numerous small and mid-sized "working" farms, with many people formerly engaged in agriculture moving on to industrial and commercial jobs where paychecks are more reliable and regular. Some hope that these people will plant buckwheat, since it is a fairly hardy crop that requires little maintenance and could represent a way to realize some profit from otherwise vacant farmland. In some southern states, buckwheat is grown as a second-season crop, thus farmers realize more income per acre per year

In addition to Minn-Dak and Birkett Mills, (headquartered in Penn Yan), grant contributors include the Japanese Buckwheat Millers Association; KASHO, an overseas commodity brokerage based in San Francisco; and Lemaster Seed Service of Portland, Indiana.

Despite its apparent salability in today's market, buckwheat has not been the subject of much attention, and relatively little is known about its potential as a profitable crop of the future.

## SEMINARS

### HORTICULTURAL SCIENCES

**Date:** Monday, September 25  
**Time:** 11:00 am  
**Place:** G19 Hedrick Hall  
**Speaker:** Joan Bonamy  
Grad Student, Hort Sci  
**Topic:** Leaf burn in pear - Cultural sensitivities and possible causes.

### PLANT PATHOLOGY

**Date:** Wednesday, September 27  
**Time:** 3:00 pm  
**Place:** A-133 Barton Lab  
**Speaker:** John Norelli  
**Topic:** Molecular ecology of resistance to Streptomycin in apple orchards.

### RACQUETBALL LADDER BEGINS SEASON

The racquetball ladder begins the playing season with a reverse of last seasons final standings before cuts. The same rules as last season apply. If you would like to be included in this season's ladder or have any questions, call Matt Lewis at x251.

362	Walter Wolf	251	Matt Lewis
239	Bruce Reisch	225	Rixana Petzoldt
265	Ed Woodams	206	Curt Petzoldt
246	Gary Harman	390	Jim McFerson
209	Joe Kovach	390	Phil Forsline
315	Tom Burr	246	Chris Hayes

Report playing results to Matt Lewis, x251.

### TENNIS LADDER

Matches played 9/13-9/19, Roelofs def. Woodams.

325	Ken Bell	206	Curt Petzoldt
209	Joe Kovach	393	Jim McFerson
240	Ed Lavin	338	Pim Lersson
361	Wendell Roelofs	239	Bruce Reisch
265	Ed Woodams	345	Chris Hoffman
352	Tony Shelton	312	Tom Burr
325	Donna Gray	399	Alan Lakso
[233	Jim Cummins]	345	Tim Dennehy
364	Jim Ottea	392	Martin Goffinet

Effective Sept 6, the two-week inactivity rule is no longer in effect although the ladder will remain active through the winter months.



## **NICOTINE AVAILABLE FOR FUMIGATION IN GREENHOUSES**

Tom DeYulio, Greenhouse and Grounds, tells us that nicotine is again available for use as a fumigant in the Station greenhouses. If you wish to have this product included in your program, please sign the weekly sheet just as you would for other requests for application of fumigants or pesticides. We are pleased that Tom was able to find a supplier of nicotine.

## **STEAM OFF THIS SATURDAY**

Because of necessary repairs that have to be made, steam to all buildings on campus will be turned off from approximately 8 a.m. on Saturday, September 23 until possibly 5 p.m. We regret any inconvenience this may cause individuals. Unfortunately, emergency steam cannot be generated in a similar fashion to electricity using portable generators. We hope you will be able to adjust your schedules accordingly. Thank you for your cooperation.