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STATION NEWS

GENEVA
NEW • YORKVOLUME LXXXIII • NO. 29
JULY 19 - 26, 2002

BRIEFS

High Antioxidant Intake Linked to Reduced Risk of Alzheimer's

Apples, previously identified by Cornell scientists as one of the best sources of antioxidants among fresh fruits and vegetables, may carry yet another health benefit—reduced risk of Alzheimer's disease.

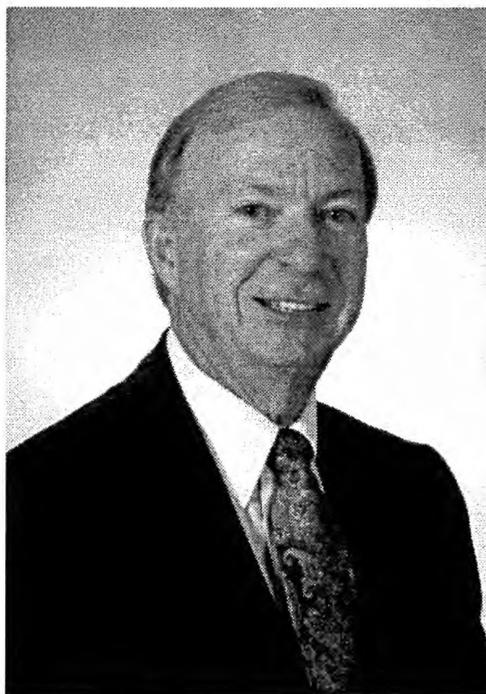
An article published June 26 in the *Journal of the American Medical Association* ties a lowered risk of Alzheimer's disease to antioxidant intake. The article, "Dietary Intake of Antioxidants and Risk of Alzheimer's Disease" reports that high intake of vitamin C and vitamin E was associated with lower risk of Alzheimer disease.

USDA Proposes to Allow Conditional Importation of Spanish Clementines

On July 12, the U.S. Department of Agriculture's Animal and Plant Health Inspection Service proposed to amend its regulations to allow the importation of clementines from Spain to resume under certain conditions.

Clementines from Spain were banned by USDA last December after live Mediterranean fruit fly larvae were found in several shipments already in the United States. USDA will hold public hearings on this proposal in August so interested parties will have an opportunity to provide comments on the proposed rule.

The proposed requirements include provisions that the clementines be grown in accordance with a Mediterranean fruit fly management program established by the government of Spain, that the clementines be subject to an inspection regimen that includes fruit cutting before and after cold treatment, and that the clementines meet

*(Continued on page 2)***Nanobiotechnology Pioneer Recognized**

Harvey Hoch will be one of 10 new fellows announced at the 2002 APS meeting in Milwaukee at the end of this month.

demonstrated that rust fungi develop in response to very specific leaf structures during certain stages of growth. Hoch investigates many of the specific factors that influence the cell growth and the biochemical and molecular signaling within the cell that triggers such development.

Over 15 years ago Hoch was one of the first biologists to make use of the Cornell Nanofabrication Facility—then the National Research and Resource Facility for Submicron Structures. "We couldn't answer some questions that we were dealing with about the biology of the rust fungi without having very precise surfaces. Using a microfabricated surface gave us very consistent results," said Hoch.

Since his initial experiments using microfabrication, Hoch has remained a strong user of advanced engineering systems for the benefit of biological research. He has delivered lectures, written papers, collaborated on a book, *Nanofabrication and Biosystems*, and co-organized an international conference promoting the use of nanotechnology. Hoch was also an important player in founding the National Center for Nanobiotechnology at Cornell, funded by the National Science Foundation.

"As a member of the Cornell Nanobiotechnology Center, his program offers new opportunities for studying the behavior of microorganisms in nanofabricated physical and chemical environments that mimic nature. Such research has great potential in the development of novel disease control strategies," said Burr.

In one now classic experiment, Hoch employed the Cornell Nanofabrication Facility to

Plant pathologist Harvey C. Hoch will be named a fellow of the American Phytopathological Society at their 2002 annual meeting in Milwaukee, Wisconsin, this month.

"I look at other people in the past who have received that recognition and think they are leaders in the society. It's an honor to be associated with them," said Hoch.

"Our department is very pleased that Harvey will be honored as an APS Fellow this year," said Thomas Burr, chair of the department of plant pathology and a fellow in the APS. "The award is given for distinguished contributions to plant pathology and to the APS. Harvey has done classical research on fungal thigmotropism that is well-known worldwide."

Other fellows in the department of plant pathology include George Abawi, Herb Aldwinckle, Gary Harman and Rosario Provvidenti.

Hoch's work focuses on how tactile stimuli, like surface structure, affect the growth and development of fungi. He has

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(BRIEFS, continued)

other conditions designed to protect against the introduction of the Mediterranean fruit fly.

Notice of this action was published in the July 11 Federal Register. APHIS documents published in the Federal Register and related information, including the names of organizations and individuals who have commented on APHIS dockets, are available on the Internet at <http://www.aphis.usda.gov/ppd/rad/webrepor.html>.

Consideration will be given to comments received on or before September 9. Please send an original and three copies of postal or commercial delivery comments to: Docket No. 02-023-3, Regulatory Analysis and Development, PPD, APHIS, Station 3C71, 4700 River Road, Unit 118, Riverdale, Md. 20737-1238. If you use e-mail, address your comments to regulations@aphis.usda.gov. Your comments must be contained in the body of the message; do not send attached files. Please include your name and address in the message and use "Docket No. 02-023-3" on the subject line.

West Nile Virus in Tompkins County Birds

On July 16, the National Wildlife Health Center reported positive results for two dead birds and New York City reported positive results for three mosquito pools. This is the first WNV-positive result in Tompkins for 2002.

This brings the total number of West Nile virus positive specimens for New York for the year to 24 dead birds and four mosquito pools.

Positive specimens by county:

- Albany - 6
- Erie - 3
- Monroe - 1
- Nassau - 3
- Niagara - 1
- Ontario - 1
- Rockland - 7
- Tompkins - 2
- NYC (Staten Island) - 4

Scientists To Discuss Bioterrorism at APS Meeting

On July 28, as a part of the 2002 annual

(Continued on page 3)

Field Tour Enters the 'Twilight Zone'

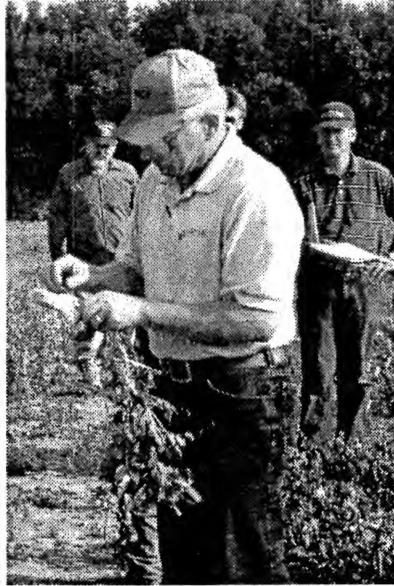


PHOTO BY: H. SCHOCK

Hugh Price points out nodulation on pea roots during his presentation at Ken Mattingly's farm.

Minnesota's 95,100 acres or Wisconsin's 51,800 acres, but peas are an important component in New York's vegetable processing industry. Peas are an excellent rotational crop that are harvested before snap bean or sweet corn. This allows the processing plants to extend the use of their facilities, leading to more efficient use of their expensive equipment.

There are, however, challenges to growing peas in New York and the 2002 growing season exemplifies one of them. Planting should commence in early April, but this year's wet soil delayed much of the planting until May. The consequences of this are two-fold: pea harvest is delayed until July and August, when temperatures are highest and peas tend to become over-mature quickly; and pea harvest will overlap with snap bean harvest, which forces the processing plants to maintain two separate processing lines. Other challenges involve the control of weeds and proper mineral nutrition.

Both these topics were addressed during the tour, which began at Ken Mattingly's farm near LeRoy and traveled via 'caravan' to four other locations, ending in Batavia. Robin Bellinder, from the Department of Horticulture-Ithaca, discussed weed control strategies. She showcased her research plots where several new herbicides were being evaluated for efficacy of weed control and phytotoxicity to the peas. Growers and processors had specific ques-

The sun had begun its slow descent toward the western horizon, casting long shadows of the men and women who gathered in small groups in a field of peas just outside Leroy, N.Y. It sounds like the end of a story, but it's actually the beginning of this one. The field was the starting point for the Weeds and Peas Processing Vegetable Twilight Tour, hosted by the Lake Plains Vegetable Team on Tuesday, July 9.

Field outings such as this customarily begin in the morning and end late in the afternoon, or in some cases in the evening with a dinner. This one, though, began at 5:15 p.m., and dinner—subs and sodas—was the first order of business. "This evening format allows more growers, who ordinarily find it difficult to leave their farms during the day, to attend," said Hugh Price, horticultural sciences department chair. He noted that there was a bigger turnout than he expected with another meeting going on at the same time.

Price also offered this background on New York's pea industry: New York produces only 5.6 percent of the nation's green peas, worth \$12 million. The state's 16,500 acres are small compared to

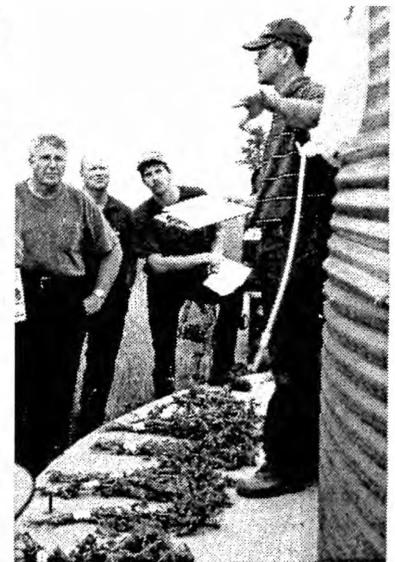
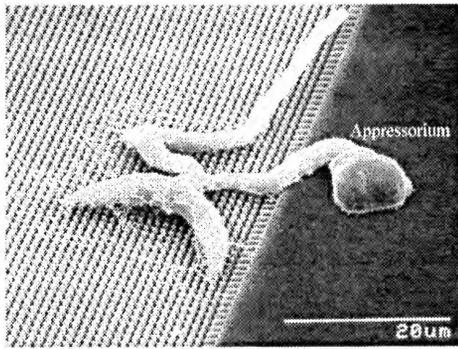


PHOTO BY: H. SCHOCK

Later on in the evening, Arlie McFaul talked about the application of a liquid formulation of Rizobium at Donn Branton's farm.

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(NANOBIOTECHNOLOGY, continued)



Microfabrication allowed Hoch to create the perfectly uniform ridges—each less than 1/100th the size of a hair—needed to investigate fungal growth.

create patterns of ridges of varying height and separation, on the order of half a micron high—1/100th the size of a human hair. Using these ridges, he analyzed the development of over 75 types of rust fungi.

Hoch became a member of the APS while pursuing his M.S. in plant pathology/soils at Colorado State University, which he completed in 1967. After earning his Ph.D. in the same field in 1972 from the University of Wisconsin, Madison, he came to the Experiment Station as a research associate. He was promoted to assistant professor in 1977, associate professor in 1982, and became a full professor in 1990. Hoch has served on numerous Station, CALS, University and APS committees including University and CALS senate,

nine years as the APS representative to the Biological Stain Commission and chair of the APS' Phylloplane Committee.

P. Seem

(FIELD TOUR, continued)

tions which Bellinder responded to.

Price discussed his research on the interaction between the rate of nitrogen application and the colonization of the roots by the nitrogen fixing bacteria, *Rhizobium sp.* He reported a linear reduction in nodulation with increasing nitrogen application. According to Price, the real question will be whether a low rate of nitrogen application with nodulation results in comparable yields to a high rate of nitrogen in the absence of nodulation. "This is a wonderful system," he concluded enthusiastically, "you don't have to apply any nitrogen—the plants just use the nitrogen from the air."

Arlie McFaul, with the Lake Plains Vegetable Team, demonstrated the application of a liquid formulation of *Rhizobium* through various auger systems prior to placing the seed in the planter. He did the demonstration on Donn Branton's farm, a unique farm where the peas are all planted in a no-till system. Branton did an excellent job of describing his planting system and responding to questions from other growers.

All the research reported during the tour was funded by the New York Vegetable Research Association.

J. Ogrodnick

(BRIEFS, continued)

meeting of the American Phytopathological Society, plant health scientists from around the world will meet in Wisconsin where one of the key subjects under discussion will be crop protection and bioterrorism. The scientists will hear presentations on how changes in U.S. policies may affect their research, what the actual threat level may be, and what steps have been and are being taken, to prevent and respond to such attacks.

"We have a responsibility as scientists to look at these issues," says R. James Cook, a plant health scientist at Washington State University, and organizer of the meeting's symposium, "Crop Biosecurity: Countering Agricultural Bioterrorism." He adds that most plant health scientists believe the risk of a bioterrorist attack on the world's food crops is low; technological and scientific advances could easily change that in the future. "It's important not to overreact," says Cook. "But we do need to be prepared."

Of more immediate concern, say the scientists, is the possible impact new regulations and legislation might have on their research activities. "There's been a lot of talk about the need to tighten security in the U.S.," says Cook. "This is understandable and in many areas much-needed. However, some of these initiatives could end up having an unintended negative effect on the free flow of scientific information."

The scientists worry that efforts to protect the U.S. agriculture might go too far, making it difficult for scientists from other nations to work together with American plant scientists to combat diseases. Adds

(BRIEFS, continued on page 4)

RED CROSS BLOOD DRIVE

Monday, August 12
9:00 AM - 2:30 PM
Jordan Hall

Congratulations

to Liz Myers and her husband,
 Ben McTernan.

Their new son, Henry Taejoo Myers McTernan, arrived Friday, July 12 from Korea. Henry, aka Harry, was born February 20. Liz is a Staff Writer at the NYS IPM Program.

CALENDAR of EVENTS

JULY 19 - 26, 2002

MEETINGS

Chairs' and Unit Leaders' Meeting

Date: Thursday, July 24, 2002
Time: 2:00 PM
Place: Director's Office

FITNESS

Aerobics

Date: Monday and Friday
Time: 12:10 - 1:00 PM
Place: Sawdust Cafe

Taekwondo Class

Date: Monday, July 22, 2002
Time: 12:10 - 1:00 PM
Place: Jordan Hall Auditorium

Taekardio Class

Date: Wednesday, July 24, 2002
Time: 12:10 PM
Place: Jordan Hall Auditorium

CLASSIFIED

FOR SALE: Men's golf clubs, Wilson 1200 LT, metal woods plus extra oversize driver, complete irons, Arnold Palmer bag, used twice. \$120.00 firm. Email mlh5 or call 787-2423.

FREE: Have you been looking for baby food jar for arts, crafts or to store small objects? If so, Rye eats a lot and we would be happy to save the jars and lids for you. Please contact Betsy at eab38@cornell.edu if you are interested.

CAR FOR SALE: A 1993 Ford Thunderbird in good condition with 126,000 miles. Light blue. Replaced engine at 110,000 miles. Asking \$2,800. Selling car because moving new baby in/out of a two-door car is no fun. If you have any questions or are interested please email Betsy at eab38@cornell.edu

CAR FOR SALE: 1994 Plymouth Voyager Minivan, 3.0L V6, 10,7K, 7 Passenger, red, no rust, automatic, dual air bags, cruise control, new transmission (remaining 1 year warranty), new radiator, new A/C belt, new thermostat, new rear brakes. Asking price \$2000/bo. Contact Kyung Man You at kmy4@cornell.edu or call 787-2344.

CAR FOR SALE: 1993 Ford mercury topaz, 13,0K, 4Cyl., red, automatic, A/C, air bag, minor collision damage, runs well, \$400/bo. Contact Kyung Man You at kmy4@cornell.edu or call 787-2344.

FOR SALE: 1971 SkyLark travel trailer (15'x 71/2'). Good condition. \$500. Contact Jeanne at jrs6 or 789-8763 after 5:30.

(CLASSIFIEDS, continued at top of page)

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FOR SALE: Minifish sailboat, \$200. Reclining chair, \$15. Portable lacrosse goal, \$10. Men's Raleigh 10 speed bike, \$15. Men's Univega 10 speed bike, \$15. Scotts 1000 seeder, \$10. ams5@cornell.edu or call 789 2310 (home).

FURNITURE FOR SALE: Full size futon and mattress, metal frame, \$125; twin mattress, box spring and frame (\$60). Please contact Kawal at 2622 or kst23.

WANTED: Does anyone have or know of someone with a good used rowboat for sale? John Ludwig at JWL2. x2407 or 539-3155.

FOR SALE: Sears brand car-top carrier. Larger size, locks, can fit any vehicle if you buy the right straps. \$60. John Ludwig at JWL2, x2407 or 539-3155.

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Cook, "We've made considerable advances in helping to improve world agriculture, but that is dependent on the open exchange of information and U.S. willingness to educate international students—both of which could be impacted by new regulations."

A top official with the United States Department of Agriculture will speak at the symposium, providing an update on the current regulatory climate and offering an opportunity for the scientists to provide feedback on bioterrorism protection efforts.

"Government leaders have been very receptive and interested in our input and participation on this issue," says Cook. "Together we can develop a program that provides reasonable protection without compromising our role as a world leader in plant disease research."

APS Press Release

Seabreeze

Tickets Available

The cost is \$14.50 each, a savings of \$3.

Kid passes (under 48" in height) are \$13.50.

Kids 2 and under are free.

Seven days a week now through Labor Day (holidays included).

Tickets are available in Room 150, Food Research Lab.

STERLING RENAISSANCE FESTIVAL

Open Saturdays and Sundays

10:00 AM - 7:00 PM

Now-August 11

Station Club is sponsoring the sale of discount passes

\$14.99/adults

\$5.99/children 6 yrs.

to 12 yrs. old

Children 5 and under are FREE

Thrill to the excitement of over 80 stage and street performances. Meet more than 200 professional actors and stagehands who recreate the look and feel of an English renaissance village as you enjoy a pleasant summer stroll through the township. For more information you can visit their web site at www.sterlingfestival.com.

Tickets are available by contacting Amy Andersen at 2314, stopping by A103 Barton Lab or by email (ada10).

