

CORNELL UNIVERSITY STATION NEWS GENEVA NEW YORK

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FEBRUARY 27-MARCH 6, 1998

BRIEFS

INJURY PREVENTION QUESTIONNAIRE

The questionnaire sent out with this week's Station News was prepared by Charles L. Curry, Coordinator of the Cornell Musculoskeletal Injury Prevention Program. Future injury prevention programs presented at the Station will be based on the results of your responses. Please complete the questionnaire and return by March 3 to:

Charles L. Curry, MA, PT
Coordinator, Musculoskeletal Injury
Prevention Program
160 Day Hall.

RESPIRATOR TRAINING/FIT TEST

It is again time for Environmental Health and Safety to train and fit-test users of respirators. Since April 1994, all personnel who purchase or use respiratory protection equipment are required to participate in the EH&S Respiratory Protection Program. This program complies with the OSHA Standard for Respiratory Protection. EH&S offers state-of-the-art fit testing, medical review, training, and record keeping requirements.

If you were not part of this program last year, you must complete the enclosed forms. Be sure that your supervisor signs the Respirator Request Form, and return the forms to:

Jennifer Verrine
Environmental Health & Safety
125 Humphreys Service Bldg.
Cornell University
Ithaca, New York 14853

Training for individuals will take place on March 10 and 18 between 8:15-9:00 am in the Jordan Hall Auditorium. Fit tests will be scheduled, in advance, every 30 minutes from 9:15-4:15 on March 10 for new program members. Please contact Charlene Dunham by March 9,

(Continued on page 2)

NEW GENETICIST HIRED AT PGRU

Dr. William (Bill) C Johnson has joined the USDA-ARS Plant Genetic Resources Unit at the Experiment Station as Plant Geneticist. His research focus will be on apple rootstock development.

"This position promotes the cooperative effort between USDA and Cornell in rootstock breeding and should have a national and worldwide impact," said Philip Forsline, acting research leader of the PGRU unit. "Bill is well-schooled to make this a successful venture. He is trained in state-of-the-art genetics techniques, which include both genetic transformation and classical breeding." Forsline also noted, "Bill will work closely with the Department of Horticultural Sciences to continue the evaluation of rootstocks from the Cummins/Aldwinckle cooperative program. He will also be developing a breeding program that will use new sources of germplasm maintained here at PGRU."

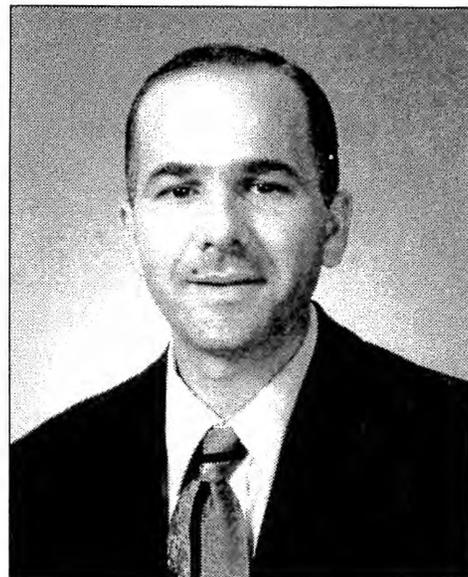
Johnson will have a courtesy assistant professor appointment in the horticultural sciences department, and department chairman Hugh Price said, "I look forward to having Bill join the Cornell pomology team and providing leadership to the apple rootstock breeding program. He brings experience in genetics and molecular biology which will have a significant impact on the next generation of Geneva rootstocks."

Herb Aldwinckle, former department chairman of plant pathology, was instrumental in hiring Johnson with whom he will be working closely. Aldwinckle stated, "After a very productive and enjoyable time working with Jim Cummins on developing disease-resistant apple rootstocks, I'm very pleased that the program is continuing with the help of the USDA. I met Bill Johnson during his interview at Geneva, and am very impressed with his academic background and research. He brings a lot of excellent modern knowledge about genetics that will be invaluable to the program. Jim Cummins and I made a lot of progress, but there are still major problems with apple rootstocks that remain to be solved."

Johnson said he was attracted to the Geneva position because it allows him to "have a very applied breeding program while keeping one foot in the door of basic research." He went on to say, "In the short term, I see my primary duty as one of management and evaluation of existing rootstock germplasm. In the longer term, my primary efforts will be in developing novel rootstock cultivars that will significantly impact US apple production."

When asked what he found most exciting about his new position, Johnson said, "Rootstock breeding is a wide open field and it can have such a profound impact on fruit production. There are basic research areas that are very poorly understood, such as the ability/inability of two genotypes to form compatible graft unions, rootstock effects on plant and fruit characteristics, and the genetic control of root. On the applied end of the research spectrum, there are serious shortcomings in all apple rootstocks currently in use, so growers are very interested in new varieties. Perhaps what I find most exciting of all is that I will be able to use

(Continued on page 3)



(BRIEFS, cont.)

1997 (cmd4 or x203), to make an appointment for a fit test.

You must have an account number with you for the fit test. Environmental Health and Safety representatives will not conduct a fit test until they have an account number—**no exceptions**. There will be a \$20 fee to cover EH&S expenses, which your department or unit will pay. Information regarding the purchase of personal protection equipment through General Stores will be handed out at the time of a fit test.

C. Hibbard

COLLIER DRIVE

With increasingly heavy traffic on Pre-Emption Road, exiting the Station from the western end of Collier Drive can be extremely dangerous, especially at noon and again at the end of the work day. Members of the Safety Committee discussed this matter thoroughly at their last meeting. One option would be to close this entrance/exit to Collier Drive at these busy times. But, the committee felt this could result in other potentially dangerous situations. Therefore, the members of the committee strongly recommend to employees of the Station that they use alternative exists from

the Station than Collier Drive during rush hours.

The entrance/exit east of Collier Drive is one choice available. It is just enough farther away from the light at the corner to provide a better margin of safety for all drivers. Other exits from the Station also exist and can be used. Further, Buildings and Properties will post a "Caution—Blind Intersection" sign at the Pre-Emption Road entrance/exit of Collier Drive. Wherever you exit the Station, please do so carefully. Thank you for your cooperation.

Pat Krauss

NIFTY URL FROM THE LIBRARY

Have you ever wondered how to cite a page, document or site from the web in a paper you are writing? Well there's now a format. As important documents and sites proliferate on the web, doubtless citing these resources in formal and even informal publications will become more important. Point your browser to: http://www.mla.org/main_stl.htm#sources

The Modern Language Association gives an excellent description of the new citing etiquette and gives many examples of how to make web citations work for you.

P. McDonald

PAYCHECK DIRECT DEPOSIT

Direct deposit for paychecks is expanding and Cornell employees are being encouraged to take advantage of the safety and convenience of direct deposit for their paychecks through several changes in the current system. The direct deposit program has been expanded to include all employees, including undergraduate students and temporary employees.

Effective March 12, the Payroll Department guarantees that all paychecks will be deposited in personal accounts by the start of business on Thursday paydays.

Paychecks can be deposited into any checking or savings account in the country. Many financial institutions provide automated systems for verifying account balances, making funds transfers and paying bills, as well as other benefits.

Every employee currently in the program or who selects direct deposit in the next month will participate in drawings for prizes that include two airline tickets to anywhere in the continental United States, free campus parking for a year or the use of Red Runner, and gift certificates from the Campus Store.

Direct deposit forms are available by contacting Charlene Dunham (x203, cmd4).

1998 HOLIDAY SCHEDULE

1998 Holiday	Actual Date	Observance Date
Memorial Day	Mon, May 25	Mon, May 25
Independence Day	Sat, July 4	Fri, July 3
Labor Day	Mon, Sept 7	Mon, Sept 7
Thanksgiving	Thur, Nov 26-Fri, Nov 27	Thur, Nov 26-Fri, Nov 27
Winter Break	Fri, Dec 25-Fri, Jan 1	Fri, Dec 25-Fri, Jan 1 (6 working days)

WWW SITE NEWS

Looking to keep up on all the latest happenings in science? Don't have the time to go to the library or the resources (i.e. money) to subscribe to your favorite journals? Take heart, the Web can help! Many of the leading scientific journals and magazines are now either fully or partially on-line. One such magazine is *Nature*, which may found at: www.nature.com.

The *Nature* magazine website, which complements the print version, is relatively simple but pleasant to look at and easy to navigate. The site contains news articles (both current and in a searchable archive dating back to 1995), current *Nature* feature article summaries, plus special Web articles. This month's Web articles feature such stories as: "Sheep Cloning," "Kyoto Climate Conference" and the complete *Helicobacter pylori* gene sequence. For the unemployed, the site also contains information about careers and the job market. Other noteworthy areas include a section on International Science Jobs and a World Market section (the ad section).

It should be noted that to get to all the features of *Nature* on-line, it is necessary to become a registered user. This registration process is free, only takes a minute, and the access gained is well worth the effort. Also, since many back articles are available on-line only in pdf format, in order to read these, you may need to download a free copy of Adobe Acrobat Reader (for which there is a link on the *Nature* site).

One annoying site feature is the morphing "subscribe now" ad for *Nature's* print version, which quickly becomes tedious. Aside from that, *Nature* on-line is a fine web site.

J. Zakour

REMINDER

— · — · Gardenscape '98 · — · —

There is only one week left to purchase advanced-sale tickets for Rochester's GardenScape '98 which will be held at the Dome Center on March 19-22. Tickets are available through Gemma Osborne (Hedrick Hall) or Colleen VanAllan (Barton Lab) for \$6.00. Admission at the door will be \$7.00.

When Station microbiologist and food safety expert Randy Worobo unveiled a new, low-cost alternative to thermal pasteurization before 150 apple growers and cider producers at the New York State Horticultural Society's meeting in Rochester in early January, he did not realize the amount of interest it would generate.

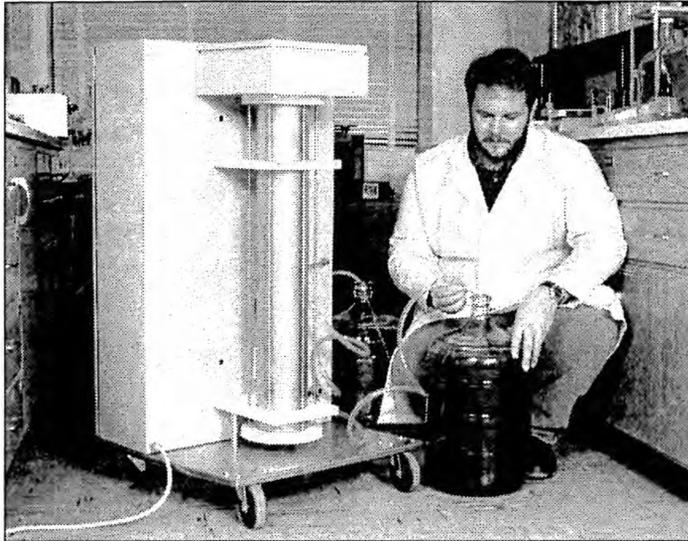
At the meeting, Worobo identified ultraviolet light as a possible answer to *E. coli* 0157:H7 contamination of fresh cider and fruit juices. Since then, he has been inundated with requests for information and now has been an invited speaker at two different meetings.

"The new design for a UV pasteurization unit should be perfect for small cider producers," according to Worobo, and has shown very promising results in preliminary testing. It is about one-quarter of the price of a thermal pasteurization unit, small, economical to run, and very user-friendly.

In the new process unveiled at the meeting, a thin film of cider was pumped past UV light at the rate of about 3 gallons per minute. Tests have shown that this particular design reduced *E. coli* 0157:H7 contamination from 100,000 microorganisms per ml to 1 organism per ml in a single pass. At the time, Worobo was hopeful that tests would prove effective against other pathogens as well.

Since its introduction last month, Worobo and the two engineers who developed the unit, Patrick Borrelli and Phil Harman, have made some modifications, streamlined the process, and come up with a new machine (pictured above). Borrelli and

UV PASTEURIZATION UPDATE



Harman are from Rochester-based FPE, Inc.

"The engineers have now addressed the small cider processors' need to have a unit operating at 180 gallons per hour with the possibility of operating it at 540 gallons per hour with additional UV components," said Worobo. The unit is extremely compact and simple to run. It wheels into place and only needs to be plugged in to be operational. The unit is in the final set of confirmation tests to ensure that the equivalent to thermal pasteurization is being met with a broad range of pathogens that are associated with apple cider. Numerous equipment distributors have expressed interest in representing FPE, Inc. for wholesaling the apparatus.

In addition to controlling pathogens in fruit juices, the UV apparatus is being tested as a means to control problematic spoilage organisms for various fruit juices.

In addition to cider producers, others

have expressed interest in this new technology, but Joe Corby of NY State Ag and Markets was quoted as saying: "This may be the silver bullet that saves the cider industry," at an FDA Apple Cider Inspections Workshop in Buffalo, NY, on February 20. Numerous people in various state and federal agencies as well as Julia Daily of the US Apple Association have offered assistance in "fast-tracking" this apparatus through FDA approval. Presently, sensory tests conducted by Mark McLellan and nutritional analyses are being performed on the UV-treated apple cider.

Nationwide, isolated outbreaks of contamination of fresh apple cider and fruit juices by the bacteria *E. coli* 0157:H7 have been causing

health problems and creating a crisis of confidence among some consumers in the past few years. The more virulent strain of *E. coli* was first identified in 1982. Producers and consumers are clamoring for more information and recommendations for safe production practices. Last year, thermal pasteurization was the process of choice, but the thermal pasteurization units cost about \$30,000 and are out of the reach of most small producers who rely on a four-week season in the fall to cover the costs of production.

"Preliminary tests indicate UV light causes no sensory changes in the juice," said Worobo. Further testing on feasibility and effectiveness is being conducted by Borrelli, Harman and Worobo, in conjunction with food specialists at the Experiment Station.

The unit could cost as little as \$6,000. FPE, Inc., has applied for a patent.

L. McCandless

(JOHNSON, cont.)

a very wide range of germplasm in my breeding program. The options are greater because rootstock varieties are not limited by the need for quality fruit, and because graft compatibility is generally much less constraining than sexual compatibility."

Johnson received his B.S. in Plant Breeding in 1991 and his Ph.D in Genetics in 1997,

from the University of California, Davis. His dissertation was on improving the efficiency of common bean (*Phaseolus vulgaris* L.) breeding programs using molecular markers. While at Davis, Johnson was a teaching assistant for classes in plant genetics and plant breeding. He has published numerous papers and presented many posters on plant

genetics and molecular markers.

Bill is presently living in Geneva. He has been an avid gardener since he was 4 years old. He also loves bicycling and is looking forward to the warmer weather that will allow him to explore the Finger Lakes on two wheels.

J. Zakour

CALENDAR of EVENTS

FEBRUARY 27-MARCH 6, 1998

SEMINARS

HORTICULTURAL SCIENCES

Date: Monday, March 2, 1998
Time: 11:00 am
Place: Jordan Hall Staff Room
Speakers: Dr. Anusuya Rangarajan
 Fruit & Veg. Sci., Cornell, Ithaca
 & Dr. Ross Welch
 U. S. Plant Soil and Nutrition Lab.,
 Ithaca
Topic: The Important Role of Plant Foods
 in Developing Sustainable Food-
 Based System Approaches to
 Eliminating Micronutrient
 Malnutrition

ENTOMOLOGY

Date: Tuesday, March 3, 1998
Time: 10:30 am
Place: Room 310, Barton Laboratory
Speaker: Marta Oliva
 Boyce Thompson Institute
Topic: To Eat or Not to Eat: Lessons
 from a Hungry Caterpillar
*There will be a period of social interaction
 with the speaker at 10:00 am.
 Coffee & cookies will be available.*

INTEGRATED PEST MANAGEMENT

Date: Tuesday, March 3, 1998
Time: 1:30 pm
Place: Room 310, Barton Laboratory
Speakers: Dr. Andrew Landers
 Dept. of Ag. Engineering
 Harper Adams College, UK
Topic: Safer Pesticide Application -
 Reducing Operator Contamina-
 tion and Environmental Pollu-
 tion in the United Kingdom

PLANT PATHOLOGY

Date: Tuesday, March 3, 1998
Time: 3:30 pm
Place: Room A133, Barton Laboratory
Speaker: Manoel Souza
 Plant Path., Cornell, Geneva
Topic: Genetics of a CP Transgene and
 its Possible Role in Achieving
 Broader Resistance: The PRSV
 Case
Meet the speaker at 3:00.

WHEN IT'S GOTTA GET THERE OVERNIGHT...

When shipping overnight, the Station regularly uses UPS, Airborne Express, Federal Express, and the Postal Services Express Mail. A New York State contract gives the Station special domestic overnight rates from UPS and Airborne Express, and a Cornell contract gives the Station special pricing on UPS International Service which applies discounts of 35%-50% depending on destination country. Currently there are no special rates available through Federal Express or the Postal Services Express Mail. Examples of services and rates for an overnight letter using each service is given below:

	UPS	Airborne	FedEx	Express Mail
Next Day Letter	\$5.63	\$4.92	\$15.00-18.00 depending on destination \$3.00 discount if using drop box	\$10.75
Weight limit	no weight limit—whatever you can get in the letter envelope provided by UPS	8 oz	8 oz	8 oz
Drop box location and pick-up time	Collier Drive 5:30 pm	Collier Drive 3:30 pm	Castle Street (next to City Hall) 6:00 pm	Collier Drive 5:00 pm
Guaranteed overnight delivery or your money back	yes	no	yes	no

The above services are available through the mail room, Jordan Hall and in some departments directly. Check with your mailing representative. Other rates are available by calling the mail room at x251.



DEADLINES

• **Monday, March 2, 1998**
 Apple Research and Development Program proposals due to Director's Office.

LTC WORKSHOPS

Tuesday, March 3, 1998, 10 am-noon
 Library Tech. Center, Jordan Hall Basement
Photoshop

Wednesday, March 4, 1998, 10-11:30 am
 Library Tech. Center, Jordan Hall Basement
Web Research/Search

If you have registered, please let Jane Irwin know if you can't attend. If you haven't registered for upcoming classes and would like to, go to <http://nysaes.cornell.edu/library/cal.html> and click on "Register Here".

CLASSIFIED

FOR SALE: Nordic Track Ultralift, \$500. Bought new in May '97 for \$1100. Contact Matt at x225, x293 or 716-393-0623. Leave message if no answer.

