

CORNELL
UNIVERSITY

STATION NEWS

GENEVA
NEW • YORK

VOLUME LXXVII • NO. 37

SEPTEMBER 13-20, 1996

BRIEFS

MINIMUM WAGE TO INCREASE FOR
THE FIRST TIME IN FIVE YEARS

A minimum wage increase, the first since 1990, is also part of the Small Business Job Protection Act. The law provides for the minimum wage to rise 90 cents an hour implemented in two stages: 50 cent increase effective this October 1 (to \$4.75 an hour) and an additional 40 cents December 1, 1997 (to \$5.15 an hour).

POWER OUTAGE SCHEDULED

We are scheduling an electrical power outage for the following areas:

EVERYTHING North of Collier Drive
4974 - Repository
4974A- PI Greenhouses
4910 - Old Range (excluding P-3)
4914 - Dairy Barn
4968 & 4961 - Storage Sheds
4919 - Mower storage
4909 & 4918 - Old Pesticide Buildings

The Outage will start at 5:00 pm Friday, September 13, and be approximately 2 hours in duration.

Since the temporary boilers do not have backup generation, steam will be off for the entire campus and it will take several hours to bring it back up to pressure.

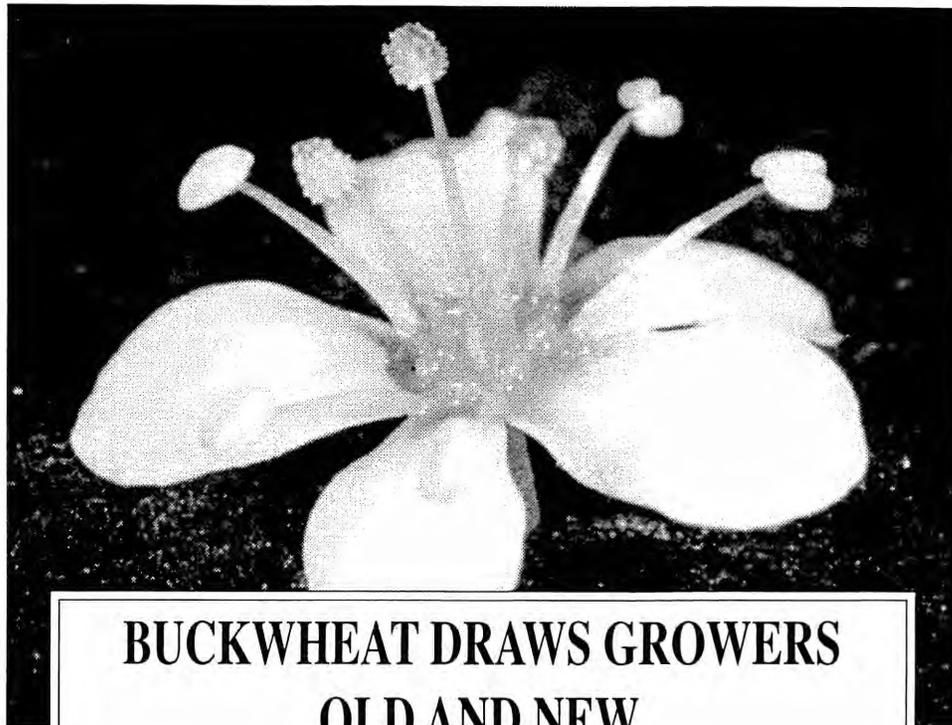
Remember, for safety reasons, personnel are to evacuate buildings without electrical power.

Thank you for your cooperation.

Buildings and Properties

ENGLISH AS A SECOND LANGUAGE

"English as a Second Language" will be held again this fall at the Experiment Station. Classes will be held Monday and Wednesday evenings from 6:30-9:30 pm. in the Jordan Hall
(Continued on page 4)

BUCKWHEAT DRAWS GROWERS
OLD AND NEW

Fifty buckwheat growers from the far reaches of New York, Pennsylvania and Ontario assembled at the Vegetable Research Farm on Tuesday, Aug. 27, for the second annual buckwheat field day.

Growers were excited to observe substantially improved buckwheat lines produced by a joint Cornell-Canadian research project under the leadership of Thomas Björkman, associate professor of vegetable crop physiology. In these trials, several new breeding lines outperformed Manor, which is the dominant variety planted throughout the Northeast.

"Manor was bred in Manitoba, Canada, and not selected for performance in New York and the Northeast," said Björkman, who has been studying buckwheat for six years. "We want to develop something that is broadly adapted to New York and our climate."

The breeding work is a cooperative project with Birkett Mills of Penn Yan, and Kade Research in Manitoba, and is the first breeding work being done in decades to focus on Northeast growing conditions.

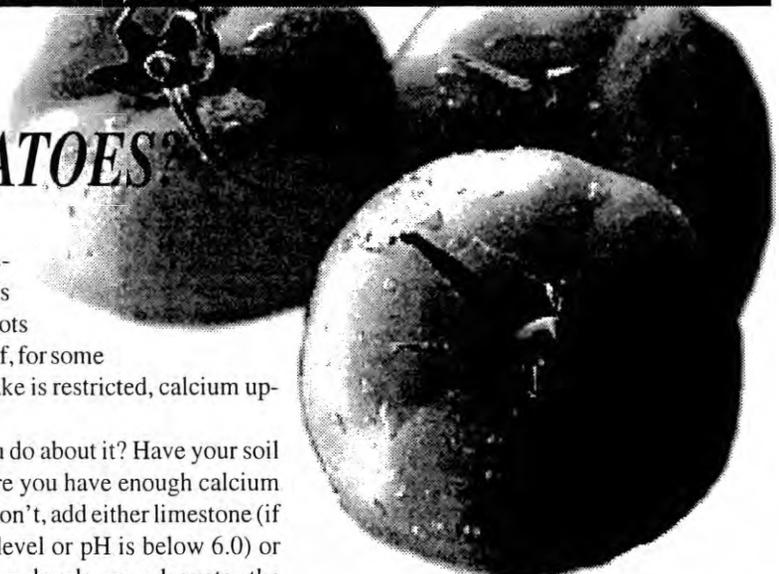
"We are trying to develop a variety that consistently yields close to its potential," said Björkman. "Buckwheat plants grow in much the same way as beans and the crop has similar production problems. That similarity has helped make a vegetable research program a very productive place to do buckwheat research."

At the meeting, there was also a spirited discussion of grower needs, ranging from better varieties, easier trucking and, of course, higher prices.

Another purpose of the meeting was to establish a grower organization similar to those that exist for other commodities. The association will allow buckwheat growers to share growing techniques and articulate their concerns with processors, extension, and the land grant universities in New York and Pennsylvania. Lee Johnson of Cornell Cooperative Extension in Yates County is facilitating this association and can be reached at 315-536-5123.

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What's wrong with my TOMATOES?



Q: Every year, I seem to have lots of green tomatoes on my plants when the first frost comes. What can I do with these unripe fruit?

A: Often, the first killing frost of the season may be followed by weeks of mild weather. First, try protecting the plants from frost. When a frost is forecast, cover the plants. Try using an old sheet, a plastic tarp, or even a floating row cover material like reemay. Place it over the plants in the late afternoon and take it off the next morning after temperatures have risen above freezing. This will also be a good time to **root prune** the plants. Root pruning means taking a spade and pressing it into the soil about 6-8 inches. Do this in a circle, one foot from the base of the plant. By doing this you will sever parts of the root which will usually hasten ripening.

When frosts become more regular, it's time to cut the plants at the base and take them to a cool location, like a basement or garage. Hang the plants from the rafters and you will see the fruit slowly ripen. The fruit will not be as tasty as those in the summer, but they will be better than what you will find in the supermarket.

Instead of removing the whole plant, harvest all tomatoes of good size and place them in paper bags in a cool location. Tomatoes do not need light to ripen and should never be placed on a windowsill! Place the tomatoes in a single layer in the bags. Tomatoes stacked on top or each other are more likely to be damaged. When placing the fruit in the bags, try to separate them based on ripeness (i.e., put all fruit of a similar ripeness in the same bag). Check on the bags regularly and remove the fruit as it ripens.

Q: What causes a big black spot on the blossom-end of my fruit?

A: The problem is called Blossom-End Rot (BER) and it is caused by a lack of calcium within the fruit. When calcium reaches low levels in the tomato, the fruit simply dies back at the bottom leaving the characteristic black or brown spot. Calcium is present in most soils in adequate amounts. The problem is that the plant cannot absorb enough calcium through its roots because of dry soil condi-

tions. That's because calcium is taken up by the roots along with water. If, for some reason, water uptake is restricted, calcium uptake will stop.

What can you do about it? Have your soil tested to make sure you have enough calcium in the soil. If you don't, add either limestone (if the soil's acidity level or pH is below 6.0) or gypsum. If calcium levels are adequate, the most important control measure is to maintain optimum soil moisture. Whenever tomato plants are allowed to experience the slightest bit of water stress, you are causing BER. To maintain good soil moisture, try using a mulch of straw, leaves, or even grass clippings that will prevent evaporation of the water.

Tomatoes need about one inch of water per week as a minimum. If you do not get this through rainfall, you will need to apply the water. For a rough estimate, each tomato plant needs approximately 3-5 gallons of water each week. If you use a mulch, this amount may be cut in half. When watering, don't lightly sprinkle the ground. Apply the water so it enters the ground and moves through the soil to a depth of 8-12 inches. Shallow watering only encourages shallow rooting which leaves tomato plants more prone to wilting.

Q: My tomato plants look great in the morning and then they wilt in the afternoon. I have a lot of green fruit that need to ripen...will these plants live to produce ripe fruit?

A: There are two pathogenic fungi that can cause wilts in plants: Fusarium and Verticillium. When you purchase seed or tomato plants, look at the variety name and the letters that follow. Most varieties are VFN resistant, which means they are resistant to Verticillium, Fusarium, and nematodes. Use varieties that are VFN resistant.

The other possible cause for late afternoon wilting is known as walnut wilt. The roots of walnut trees secrete a chemical that is very toxic to tomato plants and will cause them to wilt when they are stressed in the heat of the day. Planting tomatoes in locations where there are no walnut trees is the only answer.

Q: In May and June, dark brown to black leaf spots developed on the leaves of my tomato plants. Some were as large as an inch in diameter. What caused these spots?

A: Leaf spots can be caused by fungi that are parasites on your tomato plants. The two most common diseases are early blight and Septoria leaf spot. Spots caused by early blight can get as large as an inch in diameter and will have a bullseye appearance. Septoria leaf spots are dark at first and then become more gray in the center as they age. Both of these disease will cause the leaves of the plant to fall off prematurely. These fungi are mostly a problem during prolonged periods of wet weather.

Q: My tomato fruit looked beautiful but after I harvested them, several developed sunken circular areas that eventually rotted. What caused this to happen?

A: Sunken circular areas on tomato fruit are typical symptoms of a disease known as anthracnose, which is caused by a fungus. Although this fungus may attack both green and red fruit, symptoms do not develop until the fruit ripen. A perfectly good looking tomato will often develop these sunken areas during storage. This disease is typically a problem on tomato fruit that are sitting on the ground and when there have been prolonged periods of wet weather.

Q: How do I control diseases in the future on my tomatoes?

A: 1) The first control measure is to purchase or produce disease-free transplants. Don't purchase tomato plants that have spots on them or that are yellowing or wilting.

2) Consider the location in your garden: it is

(Continued on page 3)

(BUCKWHEAT, Cont.)

Buckwheat, which is usually planted in July, is a low-input crop that grows well on land that is wet or unprofitable for corn, soybeans, or wheat. Although it needs to be planted in well-prepared ground, buckwheat does not require fertilizers, pesticides, or tilling. As an added incentive, buckwheat deters weeds, dramatically improves the texture of the surface soil, and makes more phosphorus available for later crops.

Buckwheat demand fell off in the 1950's. However, the market for buckwheat has recently increased and demand for the crop is seldom met. The driving force for the market increase is large imports by Japanese noodle-makers who import 100,000 metric tons of buckwheat to make soba noodles, a traditional Japanese food. Previously, the Japanese bought the bulk of their North American buckwheat from farmers in Manitoba. But new Canadian subsidy laws that went into effect several years ago make it much more profitable for Canadian farmers to grow other crops.

Birkett Mills, in Penn Yan, has been milling buckwheat since 1787, and would like to see more New York farmers grow buckwheat. "Currently, about 60 percent of the buckwheat we purchase comes from out of state," says vice-president Cliff Orr. "U.S. farmers underestimate the Japanese demand. If Birkett could get enough buckwheat, we would sell to Japan."

In central New York, where buckwheat is usually grown on contract to Birkett Mills, AgriCulver in Trumansburg, or New Hope Mills in Moravia, 20 to 30 bushels to the acre is considered a good yield and the price is about \$12/hundredweight, or around \$6/bushel.

Birkett Mills sponsors the annual Buckwheat Festival in Penn Yan, which will be held September 27-29.

DO YOU USE POWERPOINT TO MAKE SLIDES?

All users of Powerpoint slide-making software should follow the following parameters for trouble-free slide generation. Under FILE, select SLIDE SETUP, then CUSTOM, then check that the parameters are 12.04 (WIDTH) and 8.028 (HEIGHT). This ensures that the slide aspect ratio is correct. Communication Services would also like to inform all users that 24-hour turnaround on slides is considered a RUSH job and Station customers will be charged \$5/slide instead of \$2.50/each.



From the Director

CONSERVE ENERGY—SAVE MONEY

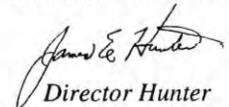
This past year, the Station ran a deficit in its utility budget of slightly more than \$53,000. Fortunately, that deficit was made up by Ithaca. If it should happen again, we cannot count on Ithaca to absorb the shortfall. This year, the Station received an additional appropriation of \$42,000 in the utility budget, which will be used to cover increased costs resulting from putting some new facilities on line.

To give you an idea of the size of the Station's utility budget for the year ending June 30, 1996, \$698,000 was spent on electricity, \$156,000 on fuel oil, and \$201,000 on natural gas. The total utility costs for the Station this past year were \$1,172,000.

Conserve energy. Some of the things that you can do include:

- Turn off lights in your office or laboratory when you are leaving for more than 15 minutes. Also, if you are the last person to leave a room where a meeting has been held, be sure lights and other equipment are turned off.
- Use electric timers to avoid appliances, including coffee pots, being left on when not needed. For example, older computers and printers that do not have energy-saving characteristics should be turned off each evening. For convenience, these devices can be put on a timer just like a coffee pot. Please contact Buildings and Properties, x301, for these timers.
- Do not use electric heaters unless written permission has been obtained from the Director of Buildings and Properties (Station policy). Wear appropriate clothing during the winter months when the temperature inside buildings may be cool.
- If a facility is not needed for a period of time, let the Director of Buildings and Properties, x220, know so that as many sources of energy as possible can be turned off. This includes shutting down growth chambers when an experiment is completed.
- When stabilizing a growth chamber for a new experiment, use as short a period as possible.
- Use air conditioning units only when absolutely necessary and in accordance with the Station's policy on air conditioning.
- Share greenhouses wherever possible, and work with the Director of Buildings and Properties to reduce energy consumption in units not being used for research purposes.
- Use supplemental light in greenhouses only when necessary and during off-peak hours.
- Be sure timers on lights in greenhouses are working and set properly.

These are just a few of the ways that energy can be saved at the Station. Each of you can probably think of many other things that can be done. Remember, if expenditures exceed the state appropriation for utilities, the Station may have to use other monies for this purpose instead of for salaries and programs. Thank you for your help in using our dollars most effectively.


Director Hunter

(TOMATOES, Cont.)

best not to plant tomatoes in the same area in consecutive years.

- 3) Research has shown that placing straw, plastic, or paper mulches around the base of the tomato plants will help reduce development of disease. Mulching will provide a physical barrier between your tomato fruit and any disease organisms that may be lurking in the ground.
- 4) If disease is present on your tomato plants, spread of the disease can be reduced by using fungicides that are available from home garden stores.

Helene Dillard and Steve Reiners

THIS WEEK'S CALENDAR

SEPTEMBER 13-20, 1996

SEMINARS

SAGES

Date: Tuesday, September 17
Time: 9:30 am
Place: Staff Room, Jordan Hall
Speaker: Jo Ann Besley
 Administrator of the Cornell University Student Health Insurance Plan
Topic: Student Health Insurance

PLANT PATHOLOGY

Date: Tuesday, September 17
Time: 3:30 pm
Place: Room A133, Barton Lab
Speaker: William E. Fry, APS President 1995-96
 Department of Plant Pathology, Ithaca
Topic: The American Phytopathological Society and YOU!!

(BRIEFS, Cont.)

Staff Room beginning September 4 and ending December 18. All international people are invited to attend free of charge. Children age 12 and older are also invited to attend the classes. No registration is required. Contact Personnel X203 if you have questions.

SAVE THE DATES

Employee Day

will be held **Saturday, October 19.**
 Cornell's Big Red will play Colgate.

Watch for details in upcoming Station News.

Station Craft Fair and Book Sale
Saturday, November 9

Any Station Employee interested in reserving a table should contact Sharon Smart at x204.

Finger Lakes Quilt Guild Presents
Piece Work Possibilities Quilt Show

Saturday, September 21

10:00 am-5:00 pm • Auditorium, Jordan Hall
 Admission—\$2.00 • Raffle—Door Prizes

CLASSIFIEDS

FOR RENT: Furnished apartment with deck, garden, parking. Walking distance to the Station. Available for eight months. \$750/month. Includes utilities. 781-2500.

MATT'S MAILBAG

UPS is now applying an additional handling charge of \$2.00 to the following:

1. Any article that **is not** fully encased in an outside shipping container.
2. Any article that **is** encased in an outside shipping container made of metal or wood.
3. Cans or pails (**this includes plastic ice coolers**) that are not fully encased in a shipping container made of corrugated cardboard.
4. Any package that exceeds 60 inches in length.

Also, UPS absolutely will not take packages being shipped in Styrofoam containers. These must be encased in a corrugated cardboard container if using UPS or shipped by another carrier. Call Matt at x251 if you have any questions.

REMINDERS

Don Lipker - Charlie D'Amico - Tom Bryan Retirement Party

Thursday, October 17, 1996 • Club 86
 Call B&P at x301 to sign up.

Bernadine Aldwinckle Retirement Party

Saturday, September 21
 Geneva Country Club,
 Contact Sandy Antinelli at x248 to sign up

FOOD SCIENCE STOCK ROOM
Going-Out of Business Sale

Department/Units can take advantage of
 33% savings during the week of September 16
 66% savings during the week of September 23
 Sale Hours:
 Monday-Thursday 8:00-Noon and 1:00-5:00
 Friday 8:00-Noon and 1:00-4:00



Bonnie Carney's Retirement Dinner

• *October 25, 1996* •
Holiday Inn in Waterloo

6:00 pm Cocktails • 7:00 pm Dinner

Buffet Dinner \$16.00

Roast Loin of Pork • Baked Chicken

All dinners include Shrimp Bisque, Tossed Salad, Fruit Salad, Potato Salad, Salt Potatoes, Orange Glazed Carrots, Pasta, Rolls, Dessert, Coffee and Tea

Please respond by October 18, 1996,

to Nancy Staton, Entomology, NYSAES, PO Box 462, Geneva, NY 14456



Please print:

Name(s): _____

Address: _____

Phone: _____

Number Attending _____ @ \$16.00 each = \$ _____

Gift Donation \$ _____ (optional)

Total Amount Enclosed \$ _____

Please respond by October 18, 1996. Make check payable to Nancy Staton