

VEGETABLE CROPS HOTLINE

A newsletter for commercial vegetable growers prepared by the
Purdue University Cooperative Extension Service

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No. 414
November 22, 2002

<http://www.entm.purdue.edu/entomology/ext/targets/newslett.htm>

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TIME IS RUNNING OUT - (Chris Gunter) - Time is running out on your *Vegetable Crops Hotline* subscription. As you know the *Vegetable Crops Hotline* newsletter provides timely information about disease, insect and weed pest management. It covers topics including fertility practices, post-harvest problems, pesticide labeling, notices of upcoming meetings and much more. The *Hotline* comes to you 13 times during the growing season, with off-season issues in November and January.

In addition to the regular *Hotline* issues, each year subscribers are informed of the latest breaking news via the *Vegetable Crops Hotline - Bulletin*. *Bulletins* are issued whenever an important topic arises between publications of the regularly scheduled *Hotline*. The *Bulletin* is delivered via FAX or e-mail, your choice. All *Hotline Articles* and *Bulletins* are written by the Extension staff from across the state.

If you are interested in renewing your subscription to the *Vegetable Crops Hotline Newsletter*, please see the Subscription Renewal Form in this issue of the *Hotline*.

SPREAD THE WORD - ID REQUIRED - (Cheri Janssen) - A government issued photo ID is required at all pesticide exam sites - at Purdue University campus, at regional sites for private applicators, and at remote exam-by-computer sites. A photo-exempt ID from the Bureau of Motor Vehicles will be accepted if religious beliefs do not allow personal photographs.

People needing a private applicator permit for the first time or to reinstate an expired permit will need to take the exam. You may know family members, employees,

or neighbors that need a private applicator permit (or commercial license) and will need to take the pesticide exam. Let them know of the ID requirement or direct them to the Purdue Pesticide Programs at (765) 496-7499.

CARRY IT WITH YOU - (Cheri Janssen) - Bring your private applicator permit card when you attend recertification programs. The new private applicator permit cards are plastic, designed for you to carry it with you. Using your PA number when you register at a program instead of your social security number helps protect the personal information linked to your social security number. Your PA number is your unique identification in the private applicator database and is needed to assure appropriate program credit. We want to make sure the right Joe Smith receives credit for the program.

Your pesticide dealer will also need to see your PA permit when you purchase pesticides.

You can easily get a replacement card if yours becomes lost or unreadable by calling Pat McGinnis, OISC, (765) 494-6271.

So carry it with you, it's a good idea.

JANUARY VEGETABLE MEETINGS - (Liz Maynard) - Vegetable programs are scheduled for January 9 in Schererville and January 27 - 29 at the Indiana Horticultural Congress in Indianapolis, IN. The January 9 program begins with a discussion of how to identify and manage seedling diseases, presented by Rick Latin. Next, growers will hear from Rick Foster about the latest recommendations for managing insects in tomatoes. Weed populations and how they change from year to year depending on tillage and cropping practices will be addressed by Steve Weller. He will also bring growers up to date on weed management programs for sweet corn and cucurbits. Cheri Janssen, Purdue Pesticide Programs, will provide a much-needed update on regulatory issues related to pesticides. Kathryn Orvis will discuss current research related

to health benefits of vegetables as she addresses the question "Are vegetables really that good for you?" Following a luncheon prepared by Teibel's restaurant, Ray Cloyd from the University of Illinois will provide information about managing insects on ornamental plants in the greenhouse. Other topics to be addressed in the afternoon include the use of colored plastic mulches in vegetable production, by Chris Gunter; new varieties of muskmelons, watermelons, peppers and tomatoes, by Chris Gunter and Bill Shoemaker from the University of Illinois; and rules for using pesticides on vegetables in the greenhouse, by Dan Egel and Fred Whitford. Representatives of seed companies and others serving the vegetable industry will have displays in a small trade show. A complete program is available on the web at www.hort.purdue.edu/hort/ext/veg/ivgs2003.html. A registration fee of \$20.00 will be collected at the door and includes the cost of lunch. For more information about the program or trade show, call (219) 785-5673. Individuals who hold a valid Private Pesticide Applicator License from the State of Indiana with an expiration date of 2005, 2006 or 2007 may receive credit towards recertification by attending the morning session, and paying a \$10 fee at the door (in addition to the cost of registration for the School).

The Indiana Horticultural Congress and Trade Show begins Monday, January 27th at the Adam's Mark Hotel in Indianapolis. A special afternoon session on irrigating vegetable crops will feature Vincent Bralts from the Dept. of Ag. Engineering at Purdue, who will discuss benefits of irrigation and Dorota Haman, Irrigation Specialist from the University of Florida, who will talk about scheduling irrigation and water requirements of vegetable crops. Other speakers include Mark Torkelson of Indiana Irrigation, on planning and setting up overhead irrigation, and Chris Arnold of T-Systems International, on planning and setting up drip irrigation. This session should prove useful for growers who are interested in setting up an irrigation system, as well as those who already have a working system.



Also on Monday, the daylong program "Marketing for Success" will be offered. Eric Gibson, author of *Sell What You Sow*, and co-author of the soon-to-be-published *Grower's Guide to the Internet* will speak on marketing opportunities for small farms. Mark Mulcahy of Organic Options, and Glen Ellen, California, will speak about identifying and taking advantage of opportunities for marketing value-added products. Kirby Hayes, Dept. of Food Science at Purdue, will discuss preservation methods for value-added products. Other topics will include school tours and petting zoos, marketing through a produce auction, and marketing to restaurants and small grocery stores. This promises to be an idea-packed day. Additional marketing topics will be covered in depth in the Tuesday afternoon marketing program.

Other Tuesday sessions at the Congress will bring vegetable growers up to date on the federal non-insured crop assistance program and the 2002 Farm Bill. In the afternoon, speakers will address plant health and weed management for pumpkins and melons, and variety selection for melons. In the specialty crops session Tuesday afternoon, speakers will discuss high tunnel production of cool season crops, and growing micro-greens, tomatillos, and arugula. The processing tomato program will be held throughout the day on Tuesday.

On Wednesday morning, speakers will discuss new and alternative pest management materials and using pesticides on vegetables in the greenhouse. Growers wanting to learn about organic certification will have the opportunity to attend the organic certification workshop on Wednesday afternoon.

The Congress also includes sessions on apple, grape, and organic production. Look for the complete Congress program on the web <www.hort.purdue.edu/hort/ext/hortcongress/default.html> in early December, and in your mailbox shortly thereafter. For more information dial (888) EXT-INFO and ask for Penny White, if you need information about registration, or ask for Chris Gunter or Liz Maynard if you have questions about the program.

Additional programs are scheduled for later in the winter. On February 20 the Starlight Vegetable Program will be held at the Joe Huber Farm in Starlight. The Ohio River Valley Farm Market Conference will be held on February 25-26 in Clarksville. For more information on these programs, contact Roy Ballard at (812) 948-5470. The 2003 Midwest Women in Agriculture Conference will be held March 11-12 in Plymouth. For more information contact Kelly Easterday at (574) 372-2340. Watch for more information about these and other programs in the next newsletter.



MATURE WATERMELON VINE DECLINE RESEARCH -

(Dan Egel) - Growers involved in watermelon production are probably familiar with the disease mature watermelon vine decline (formerly known as sudden wilt). This disease causes a wilt and decline of watermelon vines. Fruit from affected vines either fail to ripen properly or become sunburned and thus unmarketable. Roots from affected plants are brown and rotted. Although MWVD has occurred in southwestern Indiana since the late 80's, the disease was especially severe in 1999 and 2000.

In 2000, Commissioner of Agriculture Joe Kernan and the School of Agriculture of Purdue University teamed up to fund a research project aimed at determining the cause of MWVD and how to manage the disease. Although MWVD has been a very minor problem for the past two years, I would like to take this opportunity to report on our findings. Based on our research, growers should be able to lessen the impact of MWVD by manipulating the following factors.

1. **Fumigation** - Greenhouse experiments have shown that thorough soil fumigation eliminates the soil factors that cause MWVD. Thus, effective soil fumigation in a commercial watermelon field will help to reduce MWVD symptoms.

MWVD has been observed in fumigated commercial watermelon fields. However, since commercial fumigation normally only treats the area under the plastic, large areas of the field remain untreated. Roots may explore soil that has not been fumigated or fungi may recontaminate the treated zone after fumigation.

Commercial fumigations may be ineffective if soils do not meet the proper temperature and moisture conditions. Equipment failure and operator error can also lead to ineffective soil fumigation.

2. **Rotation** - In our research, only watermelon has shown symptoms of MWVD. It follows then, that repeated planting of watermelon may lead to a build up of the organisms that cause MWVD. Long rotations of 5 or 6 years between cucurbit crops is recommended for soil borne organisms, such as the ones that are involved in MWVD. Standard rotations of at least 2 years between cucurbit production is still a prudent practice to manage foliar diseases.

3. **Water management** - The relatively low severity levels of MWVD the last 2 years is likely due to the low amount of rain in southern Indiana. We have been able to reproduce MWVD symptoms in the greenhouse when plants were grown in soil saturated with water. Therefore, water management may play a critical role in MWVD control. Watermelon growers should avoid practices that lead to saturated soils. Care should be used when irrigating vines. This is especially true when fruit are rapidly increasing in size on the vines.

4. Water management is closely tied to soil type; heavier soils are more likely to become saturated and therefore more likely to have MWVD problems. Fields with heavier soils or which have a history of MWVD problems should be avoided; if such fields must be used, longer rotations should be used and water use should be carefully monitored.

5. One key to managing MWVD may be to control other soil borne diseases as much as possible. In our investigations of MWVD in southwestern Indiana, we observed moderate to high amounts of root-knot nematode and Fusarium wilt of watermelon. Although these diseases are not directly involved with MWVD, plants weakened by these other diseases would likely be more susceptible to MWVD. Conversely, plants weakened by MWVD may be more susceptible to other diseases, including Fusarium wilt and root knot.

Much remains to be done on MWVD. Several individuals in the Department of Botany and Plant Pathology and at the Southwest Purdue Agricultural Program continue to work on this critical problem. Meanwhile, if you think you have MWVD in your field, please contact Dan Egel at (812) 886-0198.

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EDITORS NOTE - *(Chris Gunter)* - If you are interested in decline diseases of vine crops (melons, cucumbers and pumpkins) please pay special attention to the Fresh Market Vegetable Program on Tuesday January 28, 2003 at the Indiana Horticulture Congress. There will be a special afternoon session titled Keeping Vine Crops Healthy, which focuses on diseases of those crops. Experts within the state and from Rutgers University will be presenting information on disease identification and control.

2003 INDIANA VEGETABLE GROWERS' ASSOCIATION

SUBSCRIPTION FORM

The Indiana Vegetable Growers Association (IVGA) is dedicated to the improvement of commercial vegetable production and marketing in Indiana. The organization sponsors an educational program at the Horticultural Congress held annually in Indianapolis. **Members of the Association receive a copy of the Midwest Vegetable Production Guide for Commercial Growers (ID-56), a subscription to the Vegetable Crops Hotline and a subscription to the American Vegetable Growers Magazine.** Members are eligible to subscribe to the American Vegetable Grower magazine at a substantial discount and receive a discount on registration fees for the Horticultural Congress.

Industry/Corporate memberships are available for those involved in supplying seeds, plants, supplies and equipment to the vegetable industry.

To join IVGA, use the attached form.

BENEFITS OF MEMBERSHIP

- Midwest Vegetable Production Guide for Commercial Growers (1 copy, available January 2003)
- Vegetable Crops Hotline subscription (1 year, January thru December)
- Inclusion in IVGA Directory of Wholesale Vegetable Producers (optional)
- American Vegetable Grower Magazine subscription (1 year)
- Discount on registration at Indiana Horticultural Congress
- Networking with other vegetable growers

MIDWEST VEGETABLE PRODUCTION GUIDE FOR COMMERCIAL GROWERS (ID-56)

This publication combines the expertise of researchers and extension specialist from Purdue University, the University of Illinois, the University of Missouri, Iowa State University and the University of Minnesota. It contains information on cultural practices, fertilizer rates, and chemical and non-chemical management strategies for weeds, insects, and diseases (\$10.00 value).

VEGETABLE CROPS HOTLINE

This newsletter from Purdue University provides the commercial vegetable grower with timely information about soil pH, fertility, varieties, insect, weed, and diseases problems (including control recommendations) throughout the entire growing season. Information about upcoming meetings, twilight tours, and the annual state convention, as well as short articles describing applied research conducted by Purdue specialists are included (\$15.00 value).

IVGA DIRECTORY OF WHOLESALE VEGETABLE PRODUCERS

IVGA members selling to wholesale accounts may choose to be included in this directory. The directory identifies crops produced by each grower and provides contact information. The directory is available to the public online at www.in.gov/oca/other/vegetable.html.

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IVGA Membership Form (Memberships run January 1 – December 31)

Please check one:

_____ Regular member (\$35.00/year)

OR

_____ Industry/Corporate Member (\$75.00/year)

Name: _____

Business Name: _____

Address: _____

City, State, Zip: _____

Telephone: _____ Fax: _____

E-mail: _____ URL: _____

Make check for IVGA membership payable to: Indiana Vegetable Growers' Association

**Mail check to: Southwest Purdue Agricultural Program
Attention: Indiana Vegetable Growers' Association
4369 North Purdue Road
Vincennes, IN 47591**



If you completed the form on the reverse side, for membership to the Indiana Vegetable Growers' Association 2003, then your subscription to the 2003 Vegetable Crops Hotline is included in your IVGA membership.*

Fill out the form below if you wish to receive only the Vegetable Crops Hotline and no other IVGA Membership benefits.

2003 Vegetable Crops Hotline Subscription Form

The *Vegetable Crops Hotline* newsletter provides the commercial vegetable grower with timely information about disease, insect and weed pests, fertility practices, post-harvest problems, pesticide label changes, meetings and much more. Each year, the *Hotline* is published 13 times during the growing season with off-season issues in November and January.

Again this year, in addition to receiving the regularly scheduled *Hotline* issues, subscribers may also receive the *Vegetable Crops Hotline - BULLETIN* either by e-mail or FAX. This will require that subscribers to the 2003 *Hotline* indicate how they want to receive the bulletins. The *BULLETIN* articles will also appear in the next regularly scheduled *Hotline* issue along with other pertinent articles written by the Purdue staff.

To subscribe to *Vegetable Crops Hotline*, please fill in your name and address below, and send this form and a check for \$15.00 made payable to Purdue University to the address below.

***Indiana Vegetable Growers Association members are automatically signed up for the *Vegetable Crops Hotline* at no additional charge.**

_____ **Yes, I would like to subscribe to the 2003 *Vegetable Crops Hotline*. Enclosed is a \$15 check made payable to Purdue University.**

Mail to: **Vegetable Crops Hotline Subscription
Southwest Purdue Agricultural Program
4369 North Purdue Road
Vincennes, IN 47591.**

*******(To update our records, please mark and complete the following)*******

I would like to receive the *Vegetable Crops Hotline - BULLETIN* via:

_____ e-mail address: _____

_____ FAX number (with area code): _____

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone: _____(home) and _____(work)

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