

# VEGETABLE CROPS HOTLINE

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

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**SQUASH BUGS ON PUMPKINS** - (Frankie Lam) - Squash bugs (Figs. 1 and 2) are serious pest of pumpkins in the Midwest. This season, relatively small or moderate populations of squash bugs were found in southern Indiana. Most pumpkin fields that I have sampled in the past few weeks have had the bug populations on an average below economic threshold of one egg mass per plant.



**Fig. 1.** Squash bug nymph feeding on pumpkin fruit.  
(Photo by Frankie Lam)

Squash bugs have piercing and sucking mouthparts (Fig. 3) and belong to the order of "true" bugs. In summer the bugs mainly feed on plant sap of leaves and stems; however, in fall the bugs may feed on fruits and direct damage the crop. Their feeding on pumpkins may cause the fruits to collapse and cause secondary infection of fungi (Fig. 4). No economic threshold for squash bug nymphs and adults in late season had developed. Unless high numbers of squash bugs are found and direct feeding on fruits is observed in field, application of



**Fig. 2.** Squash bug adult feeding on pumpkin fruit.  
(Photo by Frankie Lam)

insecticides is not recommended. This is because adults and large nymphs are very active and difficult to control by insecticides. For insecticidal management of squash bugs, please read *Midwest Vegetable Production Guide for commercial Growers* (ID-56) [www.entm.purdue.edu/entomology/ext/targets/ID/index.htm](http://www.entm.purdue.edu/entomology/ext/targets/ID/index.htm). Be certain to read the label carefully before using any pesticides.

Furthermore, field sanitation is a successful strategy to manage the overwintering squash bug populations in pumpkin fields. The unmated adults, including both



**Fig. 3.** Piercing and sucking mouthparts of squash bug.  
(Photo by Frankie Lam)





**Fig. 4.** A collapsed pumpkin with secondary infection of fungi. (Photo by Frankie Lam)

male and female, overwinter in all kinds of protective shelters, including dead leaves, vines, stones, buildings, and dwellings. After the crop is harvested (Fig. 5), vines and non-harvested fruits should be removed from the field and burned or destroyed by cultivation. Field



**Fig. 5.** After pumpkins are harvested, vines and non-harvested fruits should be removed or destroyed. (Photo by Frankie Lam)

margins should be as free as possible of rubbish, piles of leaves, boards, and other shelters. Unfortunately, most of these useful tactics for the management of the pest are not agreeable with the goals of sustainable farming. Therefore, growers should consider both for the management of the bugs and the conservation of the field before making the decision of fall tillage and leaving the ground bare through winter.



**SUNSCALD** - (Dan Egel) - Recently, a pumpkin grower complained to us about sunken, soft areas on the upper surface of his pumpkins (Fig. 1). The sunken areas ranged from soft enough to put ones finger through to nearly as hard as the unaffected areas of the fruit.



**Fig. 1.** Sunscald on pumpkin. (Photo by Dan Egel)

The damage is most likely due to sunscald. Symptoms such as shown here are most often associated with pumpkin fruit in fields where a sudden loss of leaf canopy has occurred. In the field we observed, severe downy mildew had caused the foliage to quickly die back. The relatively hot, sunny weather we have had lately probably contributed to this problem.

Any management procedure that keeps pumpkin foliage healthy though pumpkin development will help to avoid sunscald symptoms. Such management procedures include foliar disease control, fertility issues and proper irrigation when possible.



**PUMPKIN FRUIT PROBLEMS** - (Dan Egel) - This is the time of year when growers may start to see disease problems on their pumpkins. I have put together photos of the diseases I encounter most often along with a brief description. More information can be found in BP-17, and the *Midwest Vegetable Production Guide* (ID-56).



#### **Fusarium fruit rot**

**Cause** - soil borne fungus; (not the same as the fungus that causes Fusarium wilt).

**Management** - long rotations, avoid fields with a history of the problem.





### **Phytophthora blight**

**Cause** - Soil borne fungus.

**Management** - long rotations, avoid fields with a history of the problem. Fungicide applications may reduce the amount of loss if applied in a timely fashion.



### **Bacterial Spot**

**Cause** - Bacterium associated with seed or infested crop residue.

**Management** - normal rotations, copper sprays.



### **Plectosporium blight**

**Cause** - fungus in crop residue.

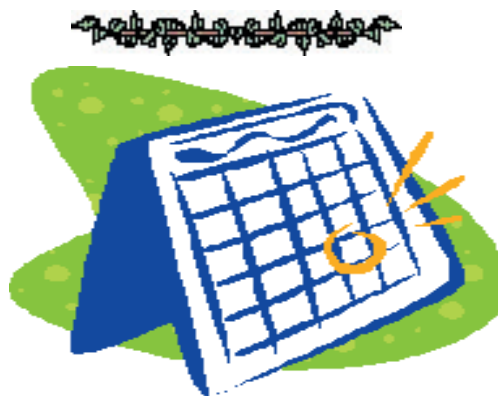
**Management** - Normal rotations, fungicides.



### **Black rot of pumpkins**

**Cause** - fungus in crop residue or seed.

**Management** - Crop rotation, fungicides.



**WE NEED YOUR IDEAS FOR WINTER MEETINGS** - (*Liz Maynard*) - Purdue staff and grower associations are beginning to plan the program for the Indiana Horticultural Congress (Jan. 23 - 25, 2006), the Illiana Vegetable School (Jan. 5, 2006), and other winter meetings. Please help us with your suggestions for topics.

- What issues have come up this season that you'd like to hear more about?
- What new technologies, crops, or marketing strategies have you heard about that you'd like more information on?
- Have you heard an excellent speaker somewhere we should bring to Indiana?
- Is there a vegetable grower you'd like to hear talk about his/her operation?

Call, fax, or e-mail your suggestions. Thanks! Phone: (219) 785-5673 or (800) 872-1231 ext. 5673; Fax: (219) 785-5483 attn: Liz; e-mail: [emaynard@purdue.edu](mailto:emaynard@purdue.edu).



**SUSTAINABLE AG PROGRAM REQUESTS PROPOSALS FROM FARMERS** - *Announcement* - The North Central Region (NCR) Sustainable Agriculture Research and Education (SARE) 2005 Call for Farmer Rancher Grant proposals is now available.

The North Central Region (NCR) SARE program of the USDA has allocated about \$400,000 for the 2005 Farmer/Rancher Grant Program. Competitive grants of up to \$6,000 are available for individual farmers and ranchers, and grants up to \$18,000 are available for groups (three or more independent and separate operations) of farmers and ranchers interested in exploring sustainable agriculture. Grants support producers who are protecting natural resources, enhancing communities, and boosting profitability.

Farmer/Ranchers are invited to submit proposals that test, evaluate, and adapt sustainable agriculture practices for their operations; conduct learning circles, educational events, field days or demonstrations to further disseminate information to farmer/ranchers; develop new technologies; or create or modify equipment. Applicants must identify specific problems and potential solutions to those problems.

The call for proposals is available on the NCR-SARE website <[www.sare.org/ncrsare/cfp.htm](http://www.sare.org/ncrsare/cfp.htm)>. Contact the SARE Office by phone at (800) 529-1342, or by e-mail at [ncrsare@unl.edu](mailto:ncrsare@unl.edu), to request a hardcopy or a copy sent as an e-mail attachment.

Proposals are due in the Lincoln NCR-SARE office by December 1, 2005.

The Farmer Rancher Grant Selection Committee will review the proposals during January and February 2006, and the NCR-SARE Administrative Council will recommend projects for funding in March. Grant recipients will be notified in March or April, 2006.



**AGRICULTURAL SAFETY AND HEALTH FORUM** - (*Announcement*) - The 2005 Agricultural Safety and Health Forum is designed to provide participants the opportunity to become better informed about current safety and health issues that impact Indiana farm and rural families. The forum will provide participants an overview of current farm safety and health activities in the state; an opportunity to hear from Indiana Prairie Farmer Editor, Tom Bechman, on working with the media; receive an update on how the illegal use of anhydrous ammonia is affecting Indiana farmers; learn how a farm wife from Boone County is making a difference in rural highway safety; and receive an overview of current issues related to agricultural labor laws and regulations.

Since 1943, the Indiana Rural Safety and Health Council has been working to make rural Indiana a safer and healthier place to live and work. Over the years the Council has hosted numerous events to focus attention on the safety and health issues impacting farm and rural families. Continuing in this tradition the Council is collaborating with Purdue University, Indiana State University, Farm Bureau Insurance, Indiana Young Farmers, and others to host the Forum.

The Forum will be locally hosted by the safety and health program at Indiana State University. It will be held in Tirey Hall, located off of Larry Bird Avenue and 7th Street. Visitor parking permits will be provided at registration.

There is no registration cost, but to join us for lunch and receive the packet of handouts you need to call in your registration by September 12th at (765) 494-1191 or send an email to [field@purdue.edu](mailto:field@purdue.edu).

It is the policy of the Purdue University Cooperative Extension Service, David C. Petritz, Director, that all persons shall have equal opportunity and access to the programs and facilities without regard to race, color, sex, religion, national origin, age, marital status, parental status, sexual orientation, or disability. Purdue University is an Affirmative Action employer. 1-888-EXT-INFO <<http://www.ces.purdue.edu/marketing>> Disclaimer: Reference to products in this publication is not intended to be an endorsement to the exclusion of others which may have similar uses. Any person using products listed in this publication assumes full responsibility for their use in accordance with current directions of the manufacturer.

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