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The IPM Scout

Pumpkin Fruit Set

Dr. Richard Hassell, Extension Horticulturist,
Clemson University

Home gardeners as well as commercial growers frequently become confused when blossoms do not mean fruit set. On the pumpkin plant are two separate types of flowers, male and female. The female flowers are the only ones that produce fruit. Generally the first flowers to appear are male. There are about five to 10 male flowers to one female flower. One easy way to tell the difference is to look on the underside of a flower for a small developing fruit. This indicates a female flower. Both day length and temperature can determine the flower type. High temperatures and long days tend to keep the plants in the male phase, whereas low temperatures and short days speed up the development of female flowers.

Because of the two types of flowers, honey bees play a major role in fruit development. Poor pollination results in blossom drop and poorly shaped fruits. Without proper pollination, the fruits will begin to smell and then turn yellow and fall off the vine. Trying to produce a crop of pumpkins without supplying honey bees is not recommended. Our wild honey bee population has diminished so that one can no longer rely on them. At least one hive of bees should be supplied for every field acre of pumpkins. Be sure to place the hives in a shady area and keep them from contact with insecticides. Remember they are the key to a successful fruit set.

Quadris (Azoxystrobin) Labeled on Cucurbits

Anthony P. Keinath, Vegetable Pathologist
Clemson University

The US-EPA granted national registration for the fungicide Quadris (active ingredient azoxystrobin) on all cucurbits (cantaloupe, cucumber, gourds, honeydew, muskmelon, watermelon, pumpkin and summer squash). Quadris will control anthracnose, belly rot, gummy stem blight, Alternaria and Cercospora leaf spots and powdery mildew at 11 to 15.4 fluid ounces of product (flowable) per acre. Apply every 7 to 10 days, starting before or in the very early stages of disease development.

To prevent fungi from becoming resistant to Quadris, make only one or two applications of Quadris before using another fungicide for one application. Only six applications of Quadris are allowed per season (2.88 qts of product per crop per acre per season). The preharvest interval is 1 day and the worker reentry interval is 4 hours. Do not tank mix with COC, MSO or silicone adjuvants or the insecticides Malathion, Kelthane, Thiodan, Phaser, Lannate, Lorsban, or M-PEDE.

Quadris, manufactured by Zeneca Ag Products, is a very safe fungicide for farm workers, consumers, and the environment. Overall, it is the safest broad spectrum fungicide on the market today. The major drawback of Quadris is the cost, about \$28 per acre per application. At least two other companies have similar products in various stages of development and registration.

Although the Quadris label lists downy mildew, Quadris did not control this disease well in field tests in North Carolina. To control downy mildew, use Ridomil Gold Bravo or Aliette as the rotation partner.

Again, it is crucial that growers follow the label restrictions which require alternating Quadris with another fungicide. If pathogens become resistant to

Quadris because of overuse of this fungicide, there may be few other options for chemical control of cucurbit diseases in the future.

Disease Symptoms

Anthony P. Keinath

“A picture is worth a thousand words.” This saying certainly applies to disease symptoms. However, rather than include black and white photos of common pumpkin diseases, here are two guides with color photos.

Identifying Diseases of Vegetables from Penn State University Press has 300 color photos, 50 of which show cucurbit diseases. It covers 18 vegetables and includes a brief description of symptoms, disease development, and spread for the general agriculturist. It costs \$10.00, and can be ordered by calling 814-865-1327.

Compendium of Cucurbit Diseases from American Phytopathological Society Press has 172 color photos and covers 58 cucurbit diseases and 16 abiotic disorders and insects. The text, written for readers with some knowledge of plant pathology, covers symptoms, the causal organism, the disease cycle, and control. It costs \$37 and can be ordered by calling 1-800-328-7560.

Cultivar Corner

‘Touch of Autumn’ is the new name for ‘PMT Peek a Boo,’ a powdery mildew-tolerant version of ‘Peek a Boo.’ See the February 1999 issue of **SC Pumpkin News** for a description of this cultivar from Rupp Seeds.

Market Window

SC Pumpkin Suppliers: **The South Carolina Dept. of Agriculture Marketing and Promotion Division** is compiling a list of pumpkin producers who will have fruit for sale in 1999. Contact Martin Eubanks at 803-734-2200 to be placed on the list.

The Alabama Pumpkin Association is very likely the only grower association in the country devoted entirely to pumpkins. The association was started in May 1997, and currently has 80 members, both commercial and hobby producers. Membership is \$20 per year. Contact Mr. Dwight N. James, President, 140 Cedar Hill lane, Tuscumbia, AL 35674; (256)383-4831 (home) or (256)386-5026 (work).



Ask the Great Pumpkin

Q: Do you have any information about “entertainment insurance” for pumpkin patches?

GP: Unfortunately, no information on insurance for pumpkin patches or hay rides was available from the four insurance companies I called, even three listed under Business and Commercial Insurance in the Yellow Pages. I suggest you try contacting the local agent who insures your farm operation about your particular needs.

Next issue (Oct. ‘99): Gourds.

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