Don’t let history repeat itself: 2015 vegetable diseases impact 2016 risk

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History has a way of repeating itself, and the same can be true with vegetable diseases. Those diseases with high incidence in 2015 put vegetable crops at a greater risk in 2016. Many pathogens overwinter in Kentucky on infected plant material or as pathogen survival structures in and around the cropping area. Poor sanitation practices in the previous season can lead to increased risk of these diseases in the upcoming season. Samples submitted to University of Kentucky Plant Disease Diagnostic Laboratories in 2015 were used to identify the most prevalent diseases in tomatoes (Figure 1 - see Page 2) and cucurbits (Figure 4 - see Page 3).

In tomato, the two most common diseases were Septoria leaf spot (Figure 2) and Pythium root/stem rot (Figure 3 - see Page 2). Septoria leaf spot overwinters in infected leaf and stem debris and on soil surfaces. In spring, the disease typically initiates on lower leaves with secondary spores being splashed farther up the plant, resulting in additional infections. Symptoms of Septoria leaf spot include circular lesions with dark borders and tan centers. Individual lesions usually remain fairly small, but many lesions on the same leaves can...
result in an overall blight and dieback in the lower plant tissue. Septoria leaf spot does not affect fruit, but in severe cases, may be seen on tomato stems. This disease also commonly co-occurs with early blight. Cultural practices, such as promptly removing and destroying residues from the previous season, as well as bagging and removing infected plant parts during the current growing season, will reduce pressure from this disease. Weed control, which lowers humidity around the crop and allows for better fungicide coverage, and drip irrigation, rather than overhead irrigation, are effective in managing this disease. Several fungicides are labeled for the management of Septoria leaf spot.

The Pythium root and stem rot pathogen persists in soil or sometimes media, or may be introduced on transplants. Symptoms include wilting, poor root development, root/stem decay, or dark or wiry lesions on the stem or crown of the plant. Pythium pathogens produce special spores that can “swim” in water. Thus, moderate irrigation and soil drainage is critical in disease management. To reduce risk of Pythium, begin each season with disease-free transplants or seeds, cleaned and sanitized pots or flats, and new potting media. Other practices, such as crop rotation and mulching, can help reduce disease incidence and spread. In commercial systems, soil-directed fungicides are available for disease management.

Figure 1: A summary of 132 tomato disease samples submitted to UK Plant Disease Diagnostic Laboratories in 2015. (Image: Kim Leonberger, University of Kentucky)
The two most common diseases of cucurbits in 2015 were downy mildew (Figure 5) and anthracnose (Figure 6 - see next page). The downy mildew pathogen does not overwinter in Kentucky and inoculum must be blown north from overwintering sites in the southern U.S. Yellow, angular leaf spots develop on the tops of leaves, while dark spores develop within the leaf veins on the bottom. Under wet conditions, defoliation may occur on severely infected plants in a matter of days. Selection of disease resistant cultivars, especially for cucumber, slow disease progression. Other cultural practices, such as planting in sites with good airflow and avoiding overhead irrigation, reduce disease incidence and spread. Many fungicides are available for the management of downy mildew, and are critical to managing the disease during wet growing seasons.

Anthracnose may affect all above ground portions of plants. Leaves may develop small lesions that enlarge to tan to brown spots, which can result in extensive blight. Stem lesions are tan-brown, elongated and sunken, while fruit lesions are circular and sunken. Over the course of the season, these spots may darken and develop a salmon-pink color. Symptoms can vary depending on the type of cucurbit affected. Selecting resistant varieties, planting pathogen free seeds, rotating crops, removing previous year debris, and avoiding overhead watering can all effectively reduce disease. Fungicides are effective when applied at regular intervals.
Preseason preparation for common diseases, followed by correct identification of diseases during the growing season, are critical to effective disease management in tomatoes and cucurbits. The University of Kentucky Department of Plant Pathology provides numerous publications with additional information and management options for these diseases. County Extension agents are also excellent sources of information on disease diagnosis and management.

Resources
- Home Vegetable Gardening (ID-128) http://www2.ca.uky.edu/agcomm/pubs/id/id128/id128.pdf
- Vegetable Production Guide for Commercial Growers (ID-36) http://www2.ca.uky.edu/agcomm/pubs/id/id36/id36.htm
- Home Vegetable Disease Management, Part 2: Sustainable Solanaceous Disease Management (Video) https://www.youtube.com/watch?v=6z5Qj34Mo0
- Home Vegetable Disease Management, Part 3: Sustainable Cucurbit Disease Management (Video) https://www.youtube.com/watch?v=c9yo-0ILi24

Local food: Is the farmers market still growing?
By Matt Ernst, independent writer

Beginning with a rise in direct farm marketing during the 1990s, especially at farmers markets and through on-farm marketing, “local” became a very attractive food label for today’s U.S. consumer. Food retailers and foodservice outlets quickly picked up on the trend between 2005 and 2015, tapping into consumer preferences for all foods local.

This article considers whether greater sales of food labeled “local” in the grocery store is eating away at local food sales through market channels first associated with the rise in “local” food, especially farmers markets.

Local is still hot
Ask a group of agriculturists to define “local food,” and words and opinions will flow freely. But on one thing all agree: Eaters of all stripes like local. What’s more, today’s U.S. consumer wants to purchase food that is both local/sustainable AND convenient. While many farmers markets are conveniently located, younger consumers more frequently turn to other outlets compared to their older consumer peers. Younger...
food customers are often more likely to source local and sustainable food from grocery stores, specialty stores and on-line delivery services (though it’s difficult to generalize the available data about delivery services).

What about farmers markets?
Anecdotes and opinions also abound as to whether locally labeled food in chain grocery stores might be taking a bite out of nearby farmers market sales. But sales at farmers markets are stable to rising nationally, according to the most recent national measures of sales data by USDA. But the rate at which farmers market sales are increasing is slowing down after the torrid increase in the early 2000s.

That national trend is also reflected in Kentucky, where gross sales at farmers markets increased an estimated 50 percent from 2007 to 2012 (about 10 percent annually) as farmers market numbers continued increasing. The rate of farmers market sales growth has slowed in the past five years in Kentucky, where surveys show a smaller percentage of farmers are relying on community farmers markets to sell all their production.

The Kentucky experience mirrors what the USDA researchers think is happening nationally. That research, reported in January, posited that slower growth in farmers market sales is likely due more to farms that started selling through farmers markets now focusing on intermediate market channels – like food hubs, direct delivery to grocers and restaurants and expanding CSA shares.

There’s another factor for sales slowdown at community farmers markets: a generally unchanging customer profile. Farmers market customers still tend toward an older (Gen-X and Boomer) demographic, according to researchers at Missouri State University. In other words, younger consumers are more likely to consider other outlets as their go-to source for local food.

Researchers also tell us that local food customers who are motivated by ideology and philosophy still prefer to shop at farmers markets. That slice of the local food market, however, is not growing as quickly as is the market for local food in grocery chains. The most important overall factors for purchases made at farmers markets have remained largely unchanged: freshness and taste, experience/supporting the local economy, and meeting the farmers personally.

There is scant research evidence to date indicating farmers market sales are being cannibalized by local food sales by chain grocers. What appears to be happening is that core farmers market customers continue shopping there while local food sold by larger grocers is reaching a broader consumer clientele that has gained an appreciation for local food, a trend started and sustained at community farmers markets.

Farm Bureau market tour will include Indiana, Michigan
Kentucky Farm Bureau is pleased to announce the Roadside Farm Market Tour, which is planned for June 27th-30th, 2016, to Indiana and Michigan! This is a great opportunity for members to tour successful roadside farm markets, agribusinesses, and more. The tour is a unique opportunity to visit operations with successful farm marketing programs and to learn different types of promotion strategies that may be useful on your farm. The KFB Roadside Farm Market Tour registration will only be conducted online at http://www.kyfb.com/rfmtour16. Registrations will be accepted on a first come, first served basis beginning on Thursday, May 12th, at 10 a.m. EDT. If you have questions about the tour, please contact Mrs. Fran McCall, Commodity Specialist and coordinator for the Roadside Farm Market Program, at 502-495-5000, ext. 7238, or Fran.McCall@kyfb.com.

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