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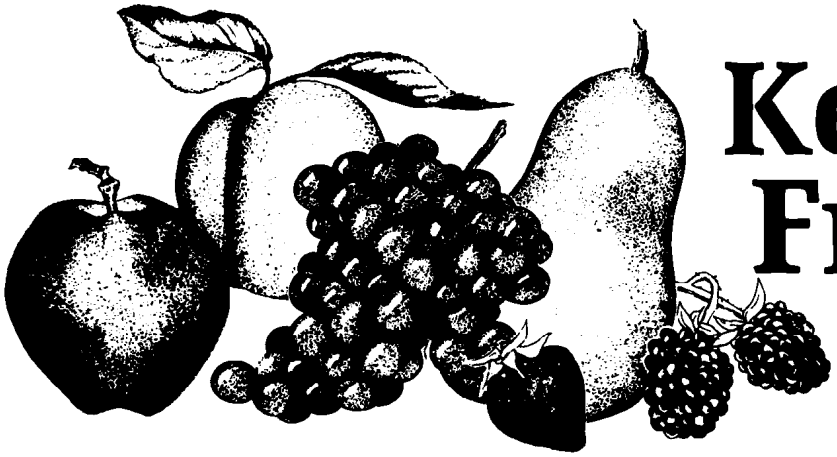

Kentucky Fruit Facts

Research & Education Center
P.O. Box 469, Princeton, KY 42445

September 2001 (9-01)
John Strang, Editor, Marilyn Hooks and Karen Shahan, Staff Assistants
Fruit Facts can be found on the web at: http://www.ca.uky.edu/HLA/fruifact/

Fruit Crop Status and News

Apples are continuing to ripen about 10 days earlier than normal, and fruit are sizing well. Color is generally good due to the cooler nights in early September. Sooty blotch and fly speck diseases are prevalent and Golden Delicious is showing a little more russet. Frost marking and frost rings are another factor affecting fruit finish. Fruit drop appears to be considerably worse than normal, so using a sticking agent on later varieties is recommended. The retail market for apples has generally been very good this fall.

The good news is that Jerry Brown is continuing to improve. He went to Cardinal Hill Rehabilitation Hospital in Lexington this summer and was told that he would regain just about all the movement that he had lost. June Johnston our Horticulture Technician at Princeton reported that Jerry went swimming the latter part of August at Kuttawa Beach and has been swimming at one of the motels in Kuttawa. He is continuing to have therapy at home and is going to Caldwell County Hospital once a week for therapy. One of his sons has been working with him to relearn how to shoot a gun and he hopes to go to his farm in Arkansas the last of September and go deer hunting.

This summer Foster and Gallagher, owners of Stark Brothers Nursery, Gurneys, Henry Fields, Michigan Bulb Company, Breck's Bulbs, New Holland Bulb, and Spring Hill Nursery filed for bankruptcy. Stark Brothers has been the source for many fruit trees planted in Kentucky over the years and many growers will be sorry to hear of their closing. Operations may be continued if a buyer is found. (Strang)

Upcoming Meetings

Oct. 18 - Brambles and Grapes, Sustainable Agriculture Workshop, "Third Thursday Thing," Kentucky State University Farm, Frankfort, KY Contact 502/597-6310; e-mail: msimon@gwmail.kysu.edu

Oct. 20 - Annual Meeting of the Kentucky Vineyard Society, Clubhouse, Buffalo Trace Distillery, Frankfort, KY. Contact John Pitcock 502/564-7360 ext. 343.

Oct. 27 - Kentucky Nut Growers' Fall Meeting, Kentucky State University, Frankfort, KY. Contact Hugh Ligon 270/827-9044 or Kirk Pomper 502/227-5842, e-mail:kpomper@dcr.net

Jan. 7-8, 2002 - Annual Kentucky State Horticultural Society, Kentucky Vegetable Growers Association and Kentucky Grape and Wine Short Course meeting. Holiday Inn North, Lexington, KY. Contact John Strang 859/257-5685.

Feb. 15, 2002 - Northern Piedmont Specialty Crops School. Southern Livestock Center, Oxford, NC. Contact Carl Cantaluppi 919-603-1350.

Market Full Flavored Produce

John Strang, Extension Fruit and Vegetable Specialist

At one of our summer Apple IPM meetings Bill Jackson talked about marketing "full flavored" apples and peaches. This makes a lot of sense. Full flavored produce is produce that has been allowed to ripen on the plant to attain its full flavor. This is the real marketing advantage that we have for Kentucky grown produce that is sold locally. Most consumers are not readily aware of the great difference in flavor between locally grown produce and produce that is shipped in.

Last fall several of our UK plant pathologists were sitting around a table having lunch together. They all had apples and decided to share slices of the different varieties. All but one of the apples were purchased from the supermarket. They all agreed that the locally grown 'Honeycrisp' was the best tasting and one of the plant pathologists left to call his wife to go purchase some 'Honeycrisp' from one of our local growers.

A large portion of the produce that is sold in supermarkets is shipped in from great distances. In order to obtain the needed shelf life these fruits and vegetables must be picked at a less mature stage. Strawberries are picked when the tip of the fruit is white. After they are harvested the fruit will turn red and soften, but the flavor does not improve. Supermarket tomatoes are normally harvested when they are green and vine ripe tomatoes are picked at the breaker stage, when the tomatoes are first showing a little pink coloration.

Fruits like strawberries, grapes, cherries, blackberries, raspberries and blueberries do not increase in sugar content once they are harvested. This is also true for watermelons, muskmelons, sweet corn, and tomatoes. Generally, the longer these fruits and vegetables are left on the plant, up to peak consuming maturity, the sweeter they get.

These produce items do not get any sweeter after harvest, because they do not have starch reserves like apples and pears that are converted to sugars following harvest. In the case of apples, fruit that are picked on the immature side to extend storage life do not develop the flavor of a tree ripened apple. On the other hand if you need to store apples until Christmas they will need to be harvested at a less mature state to obtain the storage life. Once an apple is at optimum eating maturity its storage life is considerably shortened. Most European pears must be harvested when they are hard and green, because if they are allowed to ripen on the tree they will be over-mature and have internal breakdown. Asian pears are allowed to ripen on the tree.

There are some fruits and vegetables that are normally eaten in the immature stage such as green peppers and cucumbers. In the case of peppers, ripe peppers are sweeter and have a considerably reduced storage life. Cucumbers are not normally consumed when they are mature since they are yellowish and have hard seeds.

Due to the large number of produce items that supermarkets currently carry, they are forced to store many items together in their coolers. Consequently produce can pick up off-flavors. For example apples stored with onions or potatoes will pick up these flavors.

Pierce's Disease of Grapes and Bacterial Leaf Scorch

John Hartman, Extension Plant Pathologist

Symptoms of bacterial leaf scorch are now present on shade and landscape trees (mainly oaks) in Kentucky. Leaf scorching symptoms associated with this disease have regularly appeared each fall, beginning in early August for many years. Symptoms are most common on pin and red oaks with individual leaves turning 1/3 to 2/3 brown on the leaf ends and margins. The causal agent of bacterial leaf scorch is a leafhopper-vectored bacterium called *Xylella fastidiosa*.

Another strain of *Xylella fastidiosa* causes a similar leaf scorching disease of grapes called Pierce's disease. This disease is favored by the hot weather found in the southeastern U.S. We have one possible case of Pierce's disease on grapes that tested positive in our U.K. Plant Disease Diagnostic Laboratory screen for bacterial leaf scorch for shade and landscape trees. We are currently sending the sample out of state for PCR analysis confirmation. Pierce's disease is present in some other southern states. The fact that bacterial leaf scorch can be so devastating to landscape trees here suggests that if the *Xylella* causing Pierce's disease were present in Kentucky, it would thrive.

Symptoms of Pierce's Disease. Symptoms vary with the different species and cultivars. Symptoms in spring and early summer include delayed shoot growth, leaf mottling, and dwarfing of new shoots. Late summer and fall symptoms are more dramatic and include burning, scorching, or drying of leaves; wilting or premature coloring of fruit; and uneven cane maturity. Scorching begins near the margin of the leaf blade where tissues become completely desiccated and die. As summer progresses into fall, scorching progressively spreads inward in concentric zones until the entire leaf blade is affected. Leaves often fall from the vine at the point of

attachment to the petiole, leaving the petiole still attached to the shoot.

The disease progresses along the grapevine with symptoms developing in adjacent leaves along the shoot both above and below the point of initial infection. Flower clusters on infected vines usually dry up. Late in the season, wood on affected canes fails to mature normally, leaving green "islands" of tissue which persist into the dormant season and can be seen on canes throughout the winter. Tips of shoots often die the first year the vine is infected. Initially, only one or a few canes on a vine show foliar and wood symptoms. Symptoms are more pronounced in vines that are stressed by high temperatures and drought conditions.

Grape susceptibility and disease spread. Some grape cultivars are very susceptible, usually dying within two years. Most French (vinifera) varieties die within two to five years while American (labrusca) varieties often live longer than five years. Pierce's disease is spread by several types of sharpshooter leafhoppers, by spittlebugs, and by grafting. As far as is known, the grape pathogen is the same as, but not identical to the tree leaf scorch pathogen. Thus, the disease would not be spread from trees to grapes. There is no effective control known for this disease.

With an emerging grape industry developing in Kentucky, it is important that growers and County Extension Agents be on the lookout for this disease. Personnel in the U.K. Plant Disease Diagnostic Laboratory can run specialized tests to determine the presence of the Pierce's disease bacterium as well as the strains from landscape trees. For help in diagnosing grape diseases, contact your County Extension Office.

Kentucky Apple Flash Pasteurization Facilities Open For Business

John Strang

Kentucky now has two facilities that are up and running to process Kentucky grower apples into cider and flash pasteurize it. This is a result of a cost share proposal that was funded by the Kentucky Agricultural Development Board this summer.

The facilities are Jackson's Orchard in Bowling Green, operated by Bill Jackson 270/781-5303 and Evans Orchard near Georgetown, operated by Kevan Evans 502/863-4550. These operations have been set up to handle larger volumes of apples than the other farms that have flash pasteurizers in the state.

The flash pasteurization process heats the cider to 162 °F for 15 to 20 seconds and then rapidly cools it. This takes care of microbes of concern and generally doubles the cider storage life. With this process there is no change in taste from that of unpasteurized cider. Flash pasteurization allows Kentucky growers to assure a safe product and opens the door for off-farm sales.

Bill and Kevan are set up to process growers apples and make cider or growers can purchase cider from these operations to sell. Just any apples are not acceptable for processing. The apples must be free of rot and codling moth problems. Kentucky has a long record of producing high quality apple cider, which is an important product for attracting consumers and improving fresh market pack-out.

Give Kevan or Bill a call if you are interested in some value-added processing or just want to increase your product mix and sales.

How to Participate in the Noninsured Crop Disaster Assistance Program

[For the 2001 and Subsequent Crop Years]
USDA Farm Service Agency, Fact Sheet

Background

The Noninsured Crop Disaster Assistance Program (NAP) provides financial assistance to eligible producers affected by natural disasters. This federally funded program covers noninsurable crop losses and planting prevented by disasters.

Who is an Eligible Producer?

An eligible producer is a landowner, tenant, or sharecropper who shares in the risk of producing an eligible crop. If you have questions regarding your eligibility, please contact your local Farm Service Agency (FSA) office.

What is an Eligible Crop?

Eligible crops include commercial crops and other agricultural commodities produced for food (including livestock feed) or fiber for which the catastrophic level of crop insurance is unavailable.

Also eligible for NAP coverage are controlled-environment crops (mushroom and floriculture), specialty crops (honey and maple sap), and value loss crops (aquaculture,

Christmas trees, ginseng, ornamental nursery, and turfgrass sod).

Please contact a crop insurance agent if you have questions regarding whether a crop is insurable in your county. For questions regarding whether a crop is eligible for NAP coverage, please contact your local FSA office.

What is an Eligible Natural Disaster?

An eligible natural disaster is any of the following:
- Damaging weather, such as drought, excessive moisture, or hurricane;
- An adverse natural occurrence, such as earthquake or flood; or
- a condition related to damaging weather or adverse natural occurrence, such as excessive heat or insect infestation.

The natural disaster must occur before or during harvest and must directly affect the eligible crop.

How Do I Apply for Coverage?

To apply for coverage you must file Form CCC-471, Application for Coverage, and pay the applicable service fees at your local FSA office. The application and service fees must be filed by the application closing date as established by your FSA state committee.

How Much is the Service Fee?

The service fee is equal to $100 per crop per county, or $300 per producer per county, not to exceed a total of $900 per producer for all counties.

Are Limited Resource Farmers Required to Pay Service Fees?

No. Limited resource producers may request a waiver of service fees. A limited resource producer has:
- an annual gross income not exceeding $20,000 from all sources (including income from a spouse or other household members) for each of the 2 prior years; or
- less than 25 cropland acres for all crops, where a majority of the producer's annual gross income is derived from farming and this income from all farming operations does not exceed $20,000.

What is the Coverage Period for NAP?

The coverage period for NAP may vary depending on whether you grow annual, perennial, or value loss crops.

The coverage period for annual crops begins the later of:
- 30 days after you apply for coverage and pay the applicable service fees; or
- the date your crop is planted, not to exceed the final planting date.

and ends the earlier of:
- the date you complete the crop harvest;
- the normal harvest date for the crop;
- the date the crop is abandoned; or
- the date you destroy the entire crop acreage.

The coverage period for perennial crops always begins 30 calendar days after the application closing date and ends the earlier of:
- 10 months from the application closing date;
- the date you complete the crop harvest;
- the normal harvest date for the crop;
- the date the crop is abandoned; or
- the date when you destroy the entire crop acreage.

Please contact your local FSA office for more information on the coverage periods for perennial forage crops, controlled-environment crops, specialty crops, and value loss crops.

What Crop Information Must I Report to Remain Eligible for NAP?

To remain eligible for NAP assistance, you must annually report the following crop acreage information:
- Name of the crop (lettuce, clover, etc.);
- Type and variety (head lettuce, red clover, etc.);
- Location and acreage of the crop (field, sub-field, etc.);
- Your share of the crop and the names of other producers with an interest in the crop;
- Type of practice used to grow the crop (irrigated or non-irrigated);
- Date the crop was planted in each field; and
- Intended use of the commodity (fresh, processed, etc.).

It benefits you to report crop acreage shortly after planting (early in the risk period).
It relieves you of the burden of last minute maneuvering to meet reporting deadlines and possible loss of coverage.

In addition, you must annually provide the following production information:
- the quantity of all harvested production of the crop in which you have an interest during the crop year;
- the disposition of the harvested crop, such as whether it is marketable, unmarketable, salvaged, or used differently than intended; and
- verifiable or reliable crop production records (when required).

You must provide your production information in a

manner that can be easily understood by your FSA county committee. Questions regarding acceptable production records should be directed to your local FSA office.

Failure to report acreage and production information may result in reduced or zero NAP assistance. Be aware that acreage reporting and final planting dates vary across the United States. Contact your local FSA office for your local dates.

For aquaculture, floriculture, and ornamental nursery operations, you must maintain operational records. Unique reporting requirements apply to beekeepers and producers of Christmas trees, turfgrass sod, maple sap, mushrooms, ginseng, and commercial seed or forage crops. Please contact your local FSA office for these requirements.

How Does FSA Use My Reported Acreage and Production?

FSA uses your acreage report to verify that your crop exists and your number of acres. Also, your acreage report in combination with your production report are used to calculate your approved yield (expected production for a crop year). Your approved yield is the average of your actual production history (APH) for a minimum of 4 to a maximum of 10 crop years (5 years for apples and peaches). To calculate your APH, FSA divides your total production by your crop acreage.

Your approved yield may be calculated using substantially reduced yield data if you do not report acreage and production, or report less than 4 years of crop production.

When a Natural Disaster Strikes, How Do I Apply for NAP Assistance?

When your crop or planting is affected by a natural disaster, you must notify your local FSA office by completing Part B, Notice of Loss, on Form CCC-576, Application for Payment, within 15 calendar days of the:

- natural disaster occurrence;
- final planting date, if your planting was prevented by a natural disaster;
- date damage to the crop or loss of production becomes apparent to you; or
- the normal harvest date.

To receive NAP benefits, you must complete Form CCC-576, Application for Payment, prior to the application closing date of the subsequent year. The CCC-576 requires you to provide evidence of production and note whether the crop was marketable, unmarketable, salvaged, or used differently than intended.

How Much Production Must Be Lost to Receive a NAP Payment?

The natural disaster must have either:
- reduced your expected unit production of the crop by more than 50 percent; or
- prevented you from planting more than 35 percent of your intended crop acreage.

Expected production is the amount of the crop produced in the absence of a natural disaster. FSA compares expected production to actual production to determine the percentage of crop loss.

What is a Unit?

The NAP unit includes the specific crop acreage in the county in which you have a unique crop interest. A unique crop interest is either:
- 100 percent interest; or
- a shared interest with other producers.

How Much of My Loss Does NAP Cover?

NAP covers the amount of loss greater than 50 percent of your expected production, based on your approved yield and reported acreage.

What Information Does FSA Use to Calculate My Payment?

Your NAP payment is calculated by unit using:
- Crop acreage;
- Approved yield;
- Net production;
- 55 percent of an average market price for the specific commodity, established by your FSA state committee; and
- A payment factor reflecting the decreasing cost incurred in the production cycle for the crop that is harvested, unharvested, or prevented from being planted.

Where Can I Get More Information?

Further information on NAP is available from your local FSA office or on FSA's web site at: www.fsa.usda.gov

Cooperative Extension Service
U.S. Department of Agriculture
University of Kentucky
College of Agriculture
Lexington, Kentucky 40546

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Web Site for Pesticide Labels

An excellent industry web site for quickly finding many pesticide labels and MSDS sheets can be found at http://www.cdms.net/manuf/manuf.asp This is a good way to check out registrations for new pesticides and to quickly check current labels.

Receiving Fruit Facts Electronically on the Internet

Fruit Facts is available on the web in the pdf format. To get notification of the monthly Fruit Facts posting automatically and approximately two weeks earlier than it would normally be received via mail, you can subscribe to the UK College of Agricultures's Majordomo list processor.

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John Strang, Extension Horticulturist