



Kentucky Fruit Facts

Research & Education Center

P.O. Box 469, Princeton, KY 42445

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Fruit Facts can be found on the web at: <http://www.ca.uky.edu/HLA/fruifact/>

Fruit Crop Status

Apples are ripening about 10 days earlier than normal, primarily due to the early spring warm up that we had and fruit are sizing well. Watch and spray for the fourth generation of codling moth that usually show up around the first week of September.

The peach crop has also sized well and has been very good. Peach scab and brown rot have been problems particularly in areas of the state that have received more rainfall. Ray Armstrong pointed out at our last apple IPM meeting that the pigmy fruit on some peach trees was caused by the late spring frost which injured the seeds. Examination of the seeds of these fruit shows a hard seed with a hollow interior.

Grape harvest is early on some sites and late on others. Growers that did not have severe early spring frost injury are harvesting early, while those that lost most of their primary buds to the frost and set fruit on secondary buds are harvesting later. Deciding when to harvest is more of a problem for growers that had some frost injury and set fruit on both primary and secondary buds. It has been a little more difficult to get higher fruit sugar levels in areas where more rainfall has occurred. Fruit

losses to birds and green June bugs varies across that state and Japanese beetles have been more of a problem in some western Kentucky vineyards. It is best to initiate bird control procedures before birds become a problem.

The Blackberry crop has been excellent for many growers. Fruit have sized well and yields have been exceptionally good.

August is the time to apply a pre-emergence fall herbicide for winter annual weed control in strawberries. It is important to have this applied prior to winter annual weed seed germination. Devrinol is a good choice at this time. It needs to be rained, irrigated or cultivated in within 24 hours.

Roundup used after around August 1 will be translocated to the root system on fruit crops if it is applied to leaves or less mature bark. Injury will then be manifest next spring as abnormal leaves or in more severe extreme cases as dead plants. On the other hand this makes August and September excellent periods for controlling problem perennial weeds such as thorny blackberries and poison ivy with Roundup.
(Strang)

Upcoming Meetings

Aug. 28 - Twilight Grape Field Day, Plage Vineyard, 3805 CCC Trail Rd., Morehead, KY. Contact Robert Marsh: 606/784-5457.

Sept. 20 - Small Farm Field Day, Sustainable Agriculture Workshop, "Third Thursday Thing," Kentucky State University Farm, Frankfort, KY. 9:30 a.m.- 5 p.m. Contact 502/597-6310; e-mail: msimon@gwmail.kysu.edu

Sept. 21-22 - Second International Pawpaw Conference, Frankfort, KY. Advance registration required. Contact Kirk Pomper 502/227-5842, [e-mail:kpomper@dcr.net](mailto:kpomper@dcr.net) See article below and the April Fruit Facts for program particulars.

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](mailto: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.

The Second International Pawpaw Conference

The Second International Pawpaw Conference, sponsored by the Kentucky State University Land-Grant Program and The PawPaw Foundation, will be held this September 21 and 22 in Frankfort, Kentucky. The conference will be a unique opportunity for scientists, nurserymen, entrepreneurs, and enthusiasts to share information about the production and uses of pawpaw. The conference will host a combination of invited speakers, submitted talks and posters, and roundtable discussions focusing on progress in pawpaw: regional variety trials, cultivar development, seedling and clonal propagation, germplasm collection, postharvest fruit physiology and handling, marketing and product development, and anti-cancer and pesticidal compounds (e.g.,

there will be roundtable discussions with pawpaw growers and nurserymen, a show and tell session about pawpaw for non-scientists and enthusiasts, Dr. Jerry McLaughlin will speak on new pawpaw products that will be released from NatureÆ's Sunshine Products this year, and there will be a special presentation from Dr. Bellini's research group about pawpaw production in Italy). In addition to presentations on pawpaw, the conference will also offer an opportunity to taste pawpaw fruit, tour the Kentucky State University pawpaw orchards, view demonstrations on how to propagate pawpaw, and allow participants a chance to sample pawpaw recipes from the chefs of one of Kentucky's finest restaurants, The Oakroom, a 5-Diamond restaurant at Louisville's Seelbach Hilton.

The deadline for pre-registration of the conference is August 1, 2001 and the registration fee is \$150.00. For anyone who like to attend only the Seelbach portion of the conference (fruit tasting, fruit handling, dinner, and discussion) you may register for this as a stand alone event for \$55.00. This amount includes transportation from the KSU campus to the Seelbach Hilton. The deadline for registration for the Seelbach event will be August 15, 2001. For more information please contact Dr. Kirk Pomper at 502-597-6174. Email: kpomper@dcr.net or kpomper@gwmail.kysu.edu

Get the latest information on the upcoming 2nd International Pawpaw Conference Friday and Saturday, September 21-22, 2001, Frankfort, KY [http //www.pawpaw.kysu.edu/conference/default.htm](http://www.pawpaw.kysu.edu/conference/default.htm)

Late Season Codling Moth Control

Ric Bessin, UK Extension Entomologist.

Codling moth is a serious pest of apples and pears having three to four generations per year.

Larvae damage apples and pears by chewing their way into the center of the fruit. "Frass" or fecal material is pushed out through the

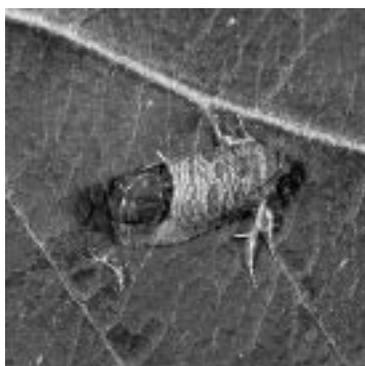


side of the fruit skin or the calyx end. Wounds caused by codling moth larvae promote the development of fruit rots. **Most of the damage is caused by second and third generation larvae.** Late season is also when growers may be more prone to drop some codling moth sprays as they have begun harvest on some varieties. Generally, Control of codling moth later in the season is assisted by good control of the first generation.

The adult moth is about 3/8 inch long and blends in well with the bark. The adult moth's forewings are gray-brown crossed with light gray and white lines and with deep gold or bronze wing tips. The larva is white, often tinged with pink, and has a brown head.

Pupation occurs in spring beginning about

the same time as bloom, with adults first active in late April or early May. Female moths lay the scale-like eggs singly on developing fruit or adjacent leaves or stems just after sundown each night. Upon



hatching, the larva enters into the calyx end or side of the fruit then tunnels to the center where they feed and develop. Brown frass is often noticed near the calyx end of the developing fruit. Larval development is completed in 3 to 5 weeks. Larvae exit the fruit to pupate in a thick silken cocoon on the bark or other protected areas. There are two and sometimes a partial third generation in the Midwest.

Management of codling moth in commercial orchards relies on regular examination of the fruit, pheromone trapping, and the use of degree day models. Pheromone traps for this pest need to be monitored from pink through harvest. Typically, the



first moth catch is at bloom and 2 or three generations should be expected throughout the year. Traps help determine timing of sprays; sprays should target larvae emerging from eggs. It is important to maintain the traps throughout the season by replacing the lure once a month.

Growers should use an action threshold of an average of 5 or more moths per week throughout the season. An insecticide application should be made 250 degree-days later if the number of moths exceed this threshold.

Dacthal 75-WP Again Being Manufactured for Weed Control in Strawberries

John Strang, Extension Horticulturist

Several years ago the company that was producing Dacthal (DCPA) 75% wettable powder herbicide quit manufacturing it. Recently, Amvac Corporation acquired the label and Dacthal is again being manufactured. Dacthal can be used in new plantings and in established strawberries. It is primarily a grass control product, but it also controls field pansy. The new label is very similar to the old label as found in the Kentucky Commercial Small Fruit and Grape Spray Guide 2001.

Dacthal is applied at from 8 to 12 pounds per acre depending on soil type. It can be used at pre- or post plant, after straw removal in the spring, at renovation or in late summer. Herbicidal activity lasts from 6 to 8 weeks. It is available in 24 -pound bags. For more information consult the Amvac web site at: www.amvac-chemical.com

How to Find Commercial Pesticide Applicator Training Dates for 2001-2002

Lee Townsend, Extension Entomologist

The most current list of approved continuing education meetings for commercial applicators is always available from the Kentucky Pesticide Applicator web page at www.uky.edu/Agriculture/PAT/welcome.htm Select - Pesticide Applicator Training Schedule. Check regularly for additions. The location and dates of initial certification testing are available by selecting - Pesticide Applicator Testing Schedule.

Leafhopper and Aphid Control with Reduced Rates of Provado

Dick Straub & Peter Jentsch, Entomology, Highland Fruit Notes, Cornell University

Damage by potato leafhopper (PLH), a migratory pest, is usually worse when it shows up early. PLH can cause significant damage to newly planted trees that are not yet established. In general, though, we feel that PLH infestations are not harmful to established bearing trees. When PLH, white apple leafhopper (WALH), rose leafhopper (RLH) and aphids are present, however, control measures are often warranted.

Knowing from earlier lab studies that Provado is very effective against leafhoppers, we performed field trials last season to evaluate reduced rates of this insecticide against all three species of leafhoppers. This research was prompted because PLH are terminal feeders (on new growth only) and constant reinfestation of new foliage is the norm; therefore, when trees are vigorous, untreated foliage is often available within hours after application of an insecticide. This obviously computes into wasted dollars. The same rationale can be applied to aphids, which are also terminal feeders.

We applied Provado in combinations at a full rate (2 oz/100 gal) and a quarter rate (0.5 oz/100 gal), at varying intervals (3rd-5th cover). We monitored nymphs of PLH/WALH/RLH and leaf damage by PLH.

Because of Provado's translaminar activity, all rates and schedules produced excellent control of WALH/RLH nymphs (however, reduced rates will not control leafminer). Against PLH nymphs, the number of applications was shown to be more important than rate; i.e., better protection of new foliage. Considering the percentage of leaves with PLH damage, the number of applications again appeared to be more important than application rate. Although data on aphids were not taken, we know that Provado is an excellent aphicide, and the same principle would hold as for PLH – maintaining coverage of new growth is more important than rate. Moreover, reduced rates are likely to increase the survival of cecidomyiid and syrphid predators that are common and effective biological control agents.

In the table below, we estimated the relative costs per acre that would be attributed to each schedule. Reduced rate of Provado will provide comparable control of the foliar-feeding pests described, and could result in a significantly lower spray bill.

Performance of Reduced Rate of Provado, HVL-2000						
	Rate/100 gal	No. applications Est'd (Interval)*	No. nymphs / 5 leaves		% leaves Damaged by PLH	\$/Acre
			WALH/RLH	PLH		
1	2 oz	1 (3 rd C)	0.1	13.0	66.0	24
2	2 oz	2 (3 rd C)	0.0	1.6	19.0	48
3	2 oz 0.5 oz	1 (3 rd C) 2 (4 th C, 5 th C)	0.0	0.2	56.0	36
4	0.5 oz	3 (3 rd C-5thC)	0.0	0.7	37.0	18
5	untreated	0	5.1	11.0	97.0	0
*3rd Cover – 6/13; 4 th Cover – 6/23; 5 th Cover – 7/4						

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John Strang, Extension Fruit Specialist