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# Kentucky Fruit Facts

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October 2003 (10/2003)

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

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## Fruit Crop News

John Strang, Extension Horticulturist

Apple harvest is winding down. Fruit size has been exceptional.

The weather generally cooperated for this years grape harvest and most growers were able to work around the few rain events.

However, many novice growers did not have much to harvest due to insufficient spray schedules and severe disease pressure. Bird problems were severe for many growers, varieties were late mostly due to the late spring frost and brix levels were a little lower than last year.

The early fall frost was generally not cold enough to cause serious problems for most fruit growers, however I have one report that it reached 26° F in Grayson and have seen a vineyard or two where the leaves were brown.

If you are interested in attending a Home-based Processing Workshop and missed

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the sessions this fall, please contact Sandra Bastin at 859/257-1812 to find out dates and locations for this spring. This workshop is to train growers to home process approved items and produce safely and allows the sale of these processed items directly to consumers.

## Upcoming Meetings

**Oct. 25 Kentucky Nut Growers Association Fall Meeting**, Scott County Extension Office, Georgetown, KY. 9:30 a.m.- 3:00 p.m. Contact Hugh Ligon 270/827-9044. See write up below.

**Nov. 1 Kentucky Vineyard Society Fall Meeting**, Lovers Leap Vineyards and Winery, Ann and Jerry Holder owners, 104 Lovers Leap, Lawrenceburg, KY. 502/839-1299 (winery). Contact John Pitcock 502/859-0101. See program below.

**Nov. 13-14 Beginning Commercial Stone Fruit Production for Direct Marketers**, COTC/OSU Newark Campus, 1179 University Drive, Newark, OH. Cost includes resource notebook, snacks and noon meal, \$50 for first person and \$12 for each additional person. For

more information call OSU Extension 740/349-6900. Confirmations with a map will be mailed to all who pre-register. Enrollment limited to 50 individuals. Lodging accommodations are conveniently located at the Courtyard by Marriott 740/344-1800. Tell them you are with OSU Extension for a discount. See program below.

#### **Nov. 15 New Crops Opportunity**

**Conference**, Sheraton Suites Hotel, Lexington. 9:00 a.m.- 5:00 p.m. Contact Christy Cassady to preregister 859/257-2859. Program follows.

**Jan. 5-6, 2004 Kentucky Annual Fruit and Vegetable Conference and Trade Show**, Holiday Inn North, Lexington, KY. Contact John Strang 859/257-5685.

### **Kentucky Nut Growers Fall Meeting**

The fall meeting will be held Saturday October 25 at the Scott County Extension Center. Driving north on I-75 take the first Georgetown exit. Turn left (west) on to US 460 (Main Street) and proceed into town. Turn right on to US 25 North (Broadway) and drive out of town. Just past the Scott County High School and a caution light, turn left at the fairgrounds entrance. Keep to the right and the Scott County Extension Center is on your left just past the Highway Garage.

A short Board of Directors meeting will be held at 10:00 a.m. The program will be conducted as an open forum. Following this there will be a tour of the Armstrong Memorial Nut planting at the UK Coldstream Farm, weather permitting.

The luncheon will be potluck. Paper plates, cups and eating utensils will be provided. Coffee and other refreshments will be available.

### **23<sup>rd</sup> Annual Meeting of the KY Vineyard Society -- November 1**

Lover's Leap Vineyards and Winery  
Ann and Jerry Holder owners  
104 Lovers Leap, Lawrenceburg, KY.  
502/839-7952 or 502/839-1299 (winery)  
Contact John Pitcock 502/859-0101

Forms and regulations for the Amateur Wine Competition may be found on the KVS web site at [www.kyvineyardsociety.org](http://www.kyvineyardsociety.org) in the fall newsletter.

**Directions:** Take I-64 to exit 53 (Lawrenceburg exit). Travel US127 South to the Tourist Activity Sign (8 tenths of a mile south of the Franklin county line). Turn left on to McCormick Rd. and follow the Lovers Leap signs to the winery. It is approximately 3.7 miles from the turn onto McCormick Rd.

#### **Program:**

##### Friday Oct. 31

6:00 p.m. Deliver wine for Competition to Lovers Leap

7:00 p.m. Amateur Wine Judging

##### Saturday Nov. 1

9:00 a.m. Registration and Informal Winery Tour- Jerry Holder

9:45 Opening Remarks  
- Dave Loney, President KVS

10:00 Fermentation and Yeasts  
- Sigrid Gersten, Lallemand, Inc., Quebec, Canada

12:00 Lunch, Awards and Wine Tasting

1:00 p.m. Developing a Grape Crop Profile  
- Lowell Sandell, Extension Specialist, UK Dept. of Entomology, Lexington, KY

1:30 Vineyard and Winery Equipment (Roundtable discussion)  
- Maggie Michaels, Orchard Valley Supply, Quakertown, PA

2:30 KVS Open Board of Directors Meeting; Nomination of 2004 Officers and Directors  
Adjourn

2:40 Short KVS Directors Meeting

**We must have advance registrations for lunch. \*\*\* RSVP by Oct. 29**

Problems: Ann Holder's cell 502/319-7953.

Please make \_\_\_\_\_ reservations (includes lunch and wine) @ \$17.00 each.

**Make check payable to Lovers Leap**

TOTAL ENCLOSED: \$ \_\_\_\_\_.

**Please return this form to:**

Lovers Leap Vineyard, 104 Lovers Leap  
Lawrenceburg, KY 40342

## Beginning Commercial Stone Fruit Production for Direct Marketers

Ohio State University Extension,  
Newark, OH

(45 miles east of Columbus)

### November 13

- 6:00 p.m. Welcome - Howard Siegrist  
6:10 Production in Ohio and Market Needs  
- Ted Gastier and Howard Siegrist  
6:30 What's Working and What's Not in Marketing and Pricing  
- Panel Discussion: Maurus Brown, Moderator. Panelists: Marshal Branstool, Lester Lynd, Mark Schmittgen, Ralph Hugus  
7:30 Cherry Production Potential in Ohio  
- Sweet and Tart Varieties, Rootstocks, Planting Densities, Site Needs, etc.  
- Tom Callahan  
8:30 Visit with Participants and Presenters  
9:00 Adjourn

### Nov. 14

- 8:30 a.m. Site Selection for Peaches, nectarines and Plums - Dianne Miller  
9:15 Site Preparation - Tom Callahan  
10:00 Break  
10:15 Training Systems, Light Relations, Rootstocks  
11:15 Water Management and Irrigation Considerations  
- Ted Gastier and Dan Kamburoff  
12:00 noon Lunch Break  
12:45 p.m. How to Make a Million Dollars Growing Stone Fruit, Developing a Business Plan, Marketing Considerations, Enterprise Budget  
- Howard Siegrist, Ted Gastier and Maurus Brown  
1:30 Overview of Yellow and White Peach and Plum Cultivars - Tom Callahan  
2:15 Varieties that Work for Me and Why  
- Grower Panel: Dave Ferree, moderator, Panelists: Marshal Branstool, Tom Callahan, Lester Lynd  
2:45 Evaluation and Future Programming Needs - Maurus Brown  
3:00 Adjourn

## New Crop Opportunities Conference

### Schedule (All times Eastern)

- 8:00 a.m. Registration Opens  
8:45 a.m. Opening Session  
9:00 a.m. Diversification - Tom Larson  
9:15 a.m. Starting a New Enterprise  
- Becky Naugle, Small Business Development Centers  
9:45 a.m. Concurrent Sessions (2 tracks)  
(1) Sweet Sorghum for Syrup  
- Danny Townsend  
(2) Hydroponic Tomatoes  
- Bill McCord  
10:30 a.m. Visit booths/break  
11:30 a.m. Concurrent Sessions (2 tracks)  
(1) Wheat Straw - Doug Langley  
(2) Bedding Plants, Hanging Baskets  
Speakers: Mark and Gina Eubank  
12:15 p.m. Lunch - Atrium  
1:00 p.m. Concurrent Sessions (2 tracks)  
(1) Edamame - Green Vegetable Soybeans  
- Sara McNulty and Martha Lee  
(2) Nursery Crops - Rob Roberts  
1:45 p.m. Visit booths/break  
2:30 p.m. Concurrent Sessions (2 tracks)  
(1) Small Fruit Grower Panel  
- Paul Dennison, Mac Stone, Nancy McCormick, Dana and Trudie Reed  
(2) Organic Vegetables and CSA  
- Steve Smith  
3:15 p.m. Concurrent Sessions (2 tracks)  
(1) Organic Grain Production  
- Tom Larson  
(2) Agritourism - TBA  
4:00 p.m. Closing Session: Grower Panel  
4:45 p.m. Adjourn

**Hotel Information:** The Sheraton Suites is an all-suites hotel. Each two-room suite features a coffeemaker, refrigerator, alarm clock radio, iron and ironing board, hair dryer, On Command Video, and an oversized whirlpool tub. Conference rates are \$79 per night for single or double occupancy, plus taxes. Be sure to **mention the New Crop Opportunities Conference when making your reservation.** The hotel is located at 2601 Richmond Road (U.S. 25), just outside New Circle Road and within a few miles of I-75 and I-64. Make your reservations with the Sheraton Suites:

Sheraton Suites Lexington  
2601 Richmond Road, Lexington, KY 40509  
(859) 268-0060 or (800) 262-3774

For more information, visit the hotel Web site at:  
<http://www.sheraton.com>

Acknowledgement of registration will be sent up to 14 days prior to the conference.

After 11/1/03 call for verification (859/257-1477). Conference limited to 100 participants. Register early!

### Registration Form

New Crop Opportunities Conference  
Saturday, November 15, 2003  
Sheraton Suites, Lexington

Name(s): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-Mail: \_\_\_\_\_

County of Residence: \_\_\_\_\_

Crops you are interested in learning about:  
\_\_\_\_\_  
\_\_\_\_\_

Do you plan to participate in the Saturday lunch (paid as part of registration fee)?  Yes  No

Special meal requests:  
\_\_\_\_\_

**Lodging Plans --** I plan to:

stay on-site at the Sheraton Suites

commute to the Sheraton Suites

**Registration fee:**

Conference registration: \$15 (includes lunch)

TOTAL ENCLOSED: \_\_\_\_\_

**Make checks payable to the University of Kentucky.**

Return registration form to:

Christy Cassady  
N-318 Agricultural Science Center  
Lexington, KY 40546-0091

## Cost Comparison of Pesticides

By Joseph G. Masabni

Pesticides are an important if not necessary factor in most fruit or vegetable production systems. Which pesticides to choose remains the top- most concern for many growers. How much pesticide to buy, and should I buy bulk to get a better price, are common questions for many growers. This article does not answer which pesticide is best in terms of its mode of action or effectiveness. Instead, this article compares two formulations of the same pesticide and determines which formulation is more economical.

The two formulations in question are the ones made for homeowners and those available commercially. I would like to compare the commercial formulation of the fungicide Nova and its alternative Immunox, formulated for the homeowner.

Nova is 40% active ingredient (a.i.) and is sold at \$86.36 per 20 oz container with a recommended application rate of 1.25 – 2 oz product (prod) per 100 gal. Immunox is 1.55% a.i. and is sold at \$10.87 per 16 oz container with a recommended application rate of 0.5 oz of prod. per gal. Which of the two is more economical?

The following table lists several cost comparisons between Nova and Immunox.

The table also shows that both Nova and Immunox contain the same amount of active ingredient per gallon of spray mix. Therefore, both have the same fungicidal activity or effectiveness. However, this is where the similarity ends. Nova is about 6 times more expensive per oz of product, but 3-4 times cheaper per gallon of spray mix. With Nova, you can spray 10-16 acres per container, compared to 1/3 acre with Immunox. Finally, your cost per acre sprayed is 4-5 times cheaper

with Nova. For a commercial grower, Nova is the obvious choice when considering the cost per acre and the number of acres treated, even if the initial cost is much higher. However, a homeowner or a small-scale grower may find Nova's initial cost prohibitive or, more importantly, may realize that he bought much more product than he can use in a single season.

In summary, many factors should be considered when purchasing a pesticide, not just the initial purchase cost. Sometimes the high purchase cost may appear prohibitive. But when you factor in the number of uses and the acres treated, then the price becomes very cost effective.

The following are important points to consider if faced with the two questions posed in the beginning of this article.

### How much pesticide to buy?

Calculate the total amount of pesticide or fertilizer needed in a given application season or year.

Multiply the amount needed for one application times the estimated number of applications required.

### Is it wise to buy bulk for best price?

Choose the quantity of product based on anticipated need, not just the best value.

Excess pesticides in storage may lose their effectiveness over time, and eventually require disposal—which often is not easily accomplished.

Plan ahead and purchase only in quantities that can be used efficiently within the same year.

	Nova	Immunox
oz a.i./ gal spray mix	1.25 oz prod. /100 gal x 0.4 oz a.i./oz pr = 0.5 oz a.i. / 100 gal = 0.005 oz a.i. / gal OR 2 oz prod. /100 gal x 0.4 oz a.i./oz pr* = 0.8 oz a.i. / 100 gal = 0.008 oz a.i. / gal	0.5 oz pr / gal x 0.0155 oz a.i./oz pr = 0.00775 oz a.i. / gal
\$ / oz product	\$86.36/20 oz = \$4.32	\$10.87/16 oz = \$0.68
\$ / gal spray mix	\$86.36 makes 1,000 – 1,600 gal spray mix = \$0.054 - \$0.086 / gal = 5.4¢ – 8.6¢ / gal	\$10.87 makes 32 gal spray mix = \$0.34 / gal = 34 ¢ / gal
Acre sprayed / container (assuming 100 gal / acre)	1,000 – 1,600 gal spray mix = 10 – 16 acres	32 gal spray mix = 0.32 acres
\$ / acre sprayed	\$86.36 for 10 – 16 acres = \$8.64 – \$5.40 / acre	\$10.87 for 0.32 acres = \$33.97 / acre

\*prod. = Product

## Cedar Rusts Active on Apples this Year

by John Hartman

Apple growers may have noticed the appearance of brightly colored yellow-orange spots on many of their apple leaves this year, particularly on apples that did not receive fungicide treatments for apple scab. Cedar-apple rust, caused by the fungus *Gymnosporangium juniperi-virginianae*, appeared in abundance on leaves of susceptible apples this year. This fungus also occasionally infects apple fruits, causing symptoms on the blossom end similar to those found on leaves. Cedar-apple rust fruit lesions are relatively shallow. On both leaves and fruit, the fungus produces spores which are infective to cedar and juniper trees growing nearby. The wet weather this spring was favorable for the infections of both the leaves and fruits.

The following list shows reactions of apple cultivars to cedar-apple rust disease:

**Very Resistant.** No chemical control is needed for these varieties. Baldwin, Delicious, Enterprise, Freedom, Gravenstein, Holly, Jersey mac, Liberty, McIntosh, Milton, Mollies Delicious, Redfree, Tydeman's Red.

**Resistant.** Chemical control is only needed under high disease pressure. Arkansas Black, Barry, Britemac, Carroll, Dayton, Early McIntosh, Empire, Granny Smith, Grimes Golden, Jonamac, Macoun, Maiden Blush, Niagara, Paulared, Priscilla, Puritan, Scotia, Spartan, Starkspur Earliblaze, Viking, Wellington, Williams Red, Winesap, Yellow Transparent.

**Susceptible.** Chemical control is usually needed where the disease is prevalent. Beacon, Ben Davis, Burgundy, Cortland, Gloster, Honeycrisp, Idared, Jamba, Jonafree, Jonagold, Julyred, Macfree, Monroe, Mutsu, Northern Spy, Northwestern Greening, Pristine, Quinte, Raritan, Rhode Island Greening, Smoothee, Spijon, Stark Bounty, Stark Splendor, Stayman, Wayne, Williams Pride.

**Highly Susceptible.** Where the disease is prevalent, chemical control is always needed and blocks of these apples should receive first priority when conditions favor infection. Arlet, Braeburn, Cameo, Fuji, Gala, Ginger Gold, Golden Delicious, Goldrush, Jonathan, Lodi, Prima, Rome Beauty, Sir Prize, Spigold, Summerred, Twenty Ounce, Wealthy, Winter Banana, York Imperial.

Cedar-quince rust (*Gymnosporangium clavipes*) also affects apple fruits, but only rarely the leaves. On fruits, cedar quince rust infections are deep and damaging to the fruit. The fruit tissue beneath these infections is brown and spongy, and necrosis can extend to the core. Cedar-hawthorn rust (*Gymnosporangium globosum*) is less common, but it can also cause symptoms on apple leaves, but not the fruit. Fruits of different apple varieties vary in susceptibility to cedar-quince rust, but their reaction may or may not be similar to that for cedar-apple rust. The following lists apple variety reactions to cedar-quince rust.

**Resistant.** Baldwin, Ben Davis, Empire, Grimes Golden, Idared, Jonathan, Lodi, Macoun, McIntosh, Milton, Mutsu, Northern Spy, Paulared, Quinte, Redfree, Rhode Island Greening, Sparta, Wealthy, Yellow Transparent, York Imperial.

**Susceptible.** Cortland, Golden Delicious, Jonagold, Jonamac, Puritan, Spigold, Spijon, Stayman, Winesap.

**Highly Susceptible.** Arkansas Black, Delicious, Rome Beauty.

Reactions of apple varieties to cedar-apple and cedar-quince rusts are based on field observations made in the eastern and midwestern US. For more information on apple diseases and their management consult U.K. Cooperative Extension Publications ID-92, 2003 Commercial Tree Fruit Spray Guide, and ID-93, Midwest Tree Fruit Pest Management Handbook, available at Kentucky County Extension offices.

## Label Watch -- A Key to Navigating New Garden Insecticides

by Lee Townsend

The continuing quest to improve the quality and safety of our food supply is resulting in major changes on shelves of garden product aisles across the country. Familiar names like diazinon, malathion, and Sevin are now being joined, and in some cases replaced by, a wide range of new products. These new products tend to have greater margins of safety for applicators and consumers, but may be more specific in pests that they control or need to be applied with more precise timing. Entfact 445 - General use insecticides for home gardening provides a valuable reference and is accessible at [www.uky.edu/Agriculture/Entomology/entfacts/trees/ef445.htm](http://www.uky.edu/Agriculture/Entomology/entfacts/trees/ef445.htm)

It is important to look beyond the brand name to answer some important questions before selecting and using these new products.

1) Can the product be used on all of the vegetables in the garden? While the general term 'garden' may appear in large print, only a few common garden crops may be covered.

2) Are the key pests controlled by the product? You can think of the A, B, C's of key pests as aphids, beetles and caterpillars. Some products are very specific, like Bt products for caterpillars only. Others catch the chewers - Beetles and Caterpillars - but don't do well against sap feeders - aphids to call names.

3) Are the days to harvest reasonable? In some cases the interval between application of the insecticide and harvest may be measured in weeks, not days.

The pyrethroid insecticides provide an example of one group of these new products. Most brand lines have a pyrethroid in their arsenal. You can identify that by looking at the active ingredient box just below the brand name. Here are three of the common pyrethroids along with an idea of the crop, pest spectrum of each and waiting days to harvest. A more complete listing of the brands is available in Entfact 445.

Cyfluthrin (e.g. Bayer Advanced Garden PowerForce Multi-Insect Killer Concentrate) for beetles and caterpillars on carrots (0), peppers (7), radishes (0), sweet corn (0), tomatoes (0).

Esfenvalerate (e.g. Bonide Eight Vegetable Fruit and Flower Concentrate) for aphids, beetles, and caterpillars, on asparagus (3) beans (3), broccoli, Brussels sprouts, cabbage, cauliflower (1), carrots (7), collards (7), cucumbers (3), dry beans (21), dry peas (21), eggplant (7), green peas (3), melons (3), peppers (7), potatoes (7), pumpkin (3), radishes (7), snap beans (3), squash (3), sweet corn (1), tomatoes (1).

Permethrin (e.g. Dragon Lawn & Garden Protector Concentrate) for control of aphids, beetles, and caterpillars on asparagus (3), broccoli, Brussels sprouts, cabbage, cauliflower (1), eggplant (3), potatoes (7), peppers (3), spinach (1), sweet corn (1)

## Receiving The Fruit Facts Newsletter Electronically on the Internet

Fruit Facts is available electronically 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 University of Kentucky Listserve.

To subscribe, send an e-mail message:

Addressed to: [listserv@lsv.uky.edu](mailto:listserv@lsv.uky.edu)

Subject: Fruit Facts

Message: subscribe ky-fruitfacts, followed by a blank line

You will receive two responses, the first notifying you that your request has been received and to wait for the second message. The second message describes how to confirm your request. You must confirm your request

using one of the three ways shown (web access, e-mail reply or new e-mail message). Upon successfully confirming, you should get a welcome message.

To unsubscribe, send an e-mail message as above, but with a message of, “unsubscribe ky-fruitfacts, followed by a blank line.

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John G. Strang,  
Extension Fruit & Vegetable Specialist