

President's Message By: Phil Hahn

2008 has been a good growing year in the south suburbs. Adequate moisture, not too hot and good fruit set. Looks like I'll get a bumper apple crop on just three early sprays. The red raspberries are loaded with immature fruit and Japanese beetles. Handpicking of the beetles into soapy water keeps them in check well enough. The blackberries are in an off-year for fruit, lots of new canes though for next year. After 15 years they seem to have gotten into a pattern of alternate year production. A low year is less than 10 pounds of berries, a high year is more than 20 pounds. New in my garden this year are a Southern Belle Peach, a Jubileum Cherry and four high bush blueberries.

Fall Harvest Festival and Fruit display- October 18- 19 Chicago Botanic Garden. Our Big event of the year is being organized by Mike Modde and Michael Zost. You may be contacted by up them for Friday evening setup or weekend manning of posts. If you know when you're coming to help but haven't signed up for a time slot, call or email Mike (or Mike). The more the merrier.

Annual (?) Home Orchard Tours

The June visit to member's back yards (Cosnow, Yale, Dubrin – this year) could/should be an annual event. Let me know if you'd like to have your orchard on the list for next year. While this year's impressive yards were geographically close to each other, it's not a requirement. In the future, if yards are distant, no matter, just means everyone won't make it to every yard. We could have 5 or 6 yards so most members are close to at least one. Your yard doesn't need to be a knock-out like this year's three. Most of us practice at a much smaller scale.

Royal Oak Farm

If you didn't make it to the July Midfex picnic, you missed a real treat. The Norton family runs a first class orchard and u-pick operation. Since July is between spring orchard care and late summer u-pick, Dennis Norton had time to spend with us at the feed and the tour. Not sure he was able to eat much – we buzzed around him like flies at a picnic – of which there were none, since we had use of the beautiful new screened picnic shelter. The tour de force for our 36+ members was via tractor-pulled wagon. Lots of questions and answers. Sorry if you missed it.

Phil

Volunteers Wanted

We are looking volunteers to run for office at the January meeting. Please contact Phil if you are interested.

MidFEx Comes of Age - 1976-1997

With the 10 year anniversary of Bob Kurle's passing, it's perhaps appropriate that we consider the vital role he and Mary played in the founding of our group. Virginia Beatty was there and gave this account:

MidFEx Comes of Age - 1976-1997
Virginia L. Beatty, Past-President
Reprinted from the *Grapevine*, June 1997

MidFEx (Midwest Fruit Explorers) started with Bob Kurle. In 1973 when I was coordinator of the Educational and Amateur Exhibits for the Chicago Flower Show at McCormick Place. Bob Kurle approached me for a NAFEx exhibit space. Bob's exhibit was great. He brought in a small tree, about three feet tall in a large pot, which sported a half dozen different kinds of grafts. From the tree he hung many different apples -- all labeled. For additional interest he included several kinds of preserves and jams with crackers for tasting. Bob was surrounded by people three-deep eagerly listening to the information he was sharing. The following year at the Flower Show Bob added a display of many kinds of hybrid nuts, courtesy of his friends in the Northern Nut Growers, and a display of NAFEx materials including copies of Pomona. NAFEx membership grew and Bob asked local NAFEx members to help plant and care for a collection of dwarf apple trees at the new Chicago Botanic Garden in Glencoe. Soon after we started working at the BG Bob asked a number of us NAFEx members to help him form a local chapter. So it happened that a group of us in 1976 met on a Sunday afternoon in the Linnaeus Room at the Chicago Botanic Garden and formed the midwest chapter of NAFEx. Bob was ejected president and Virginia Beatty was elected vice-president, and Mary Kurle started the tradition of bringing goodies that over the years have kept everyone coming back. Mary Kurle, a gracious lady, also served as NAFEx membership chairman for many years and was hostess for the summer picnics the local NAFEx members held on the Kurle's front lawn for many years. The group got off to a great start. Our first harvest festival was one of the first exhibits ever held in the main exhibition hall of the new Education Building at the Botanic Garden. We had a huge panel which showed how a dwarf tree was constructed and why "dwarfs" could range in size from 3' to 30.' There were also tables covered with the fruit brought in by members. It wasn't long before Bob got out his knife and started offering people a taste of the fruit on exhibit. Many visitors asked about where they could get special apple varieties, "really" dwarf trees, and help with grafting. So we set a date with the Botanic Garden for a grafting session after the Chicago Flower and Garden Show the following March. Much of what we do today goes back to the early days and Bob and Mary Kurle's hard work.

Volunteers Needed for the Harvest Festival

The MidFEx Fall Harvest Festival is scheduled for Saturday and Sunday 18-19 October 2007 from 9 AM to 4:30 PM in the Chicago Botanic Garden in Glencoe, IL.

The fest serves three purposes for the club: it is our primary fund raising event, the chance for members to display their fruits and nuts and most importantly it is the time to educate the public and recruit new members.

It has worked well in the past due to the efforts of club members volunteering to work the show. We need you support again this year. Please email or call to volunteer **Tim Hamilton** at 847-855-7445 (timnzeus@aol.com) or **Mike Modde** at 847-356-6326.

Harvest Festival Dates and Times

Friday October 17th

- 1pm to 4
1. This is the set up time. We'll receive 60+ bushels of apples from Doud's with cider and they need to be off loaded and moved to the cooler.
 2. All of the clubs displays need to be set up along with the cider press and dozen display tables.
 3. Members can bring fruits and nuts. This is the time to set up the display and label the fruit with the variety and your name.

Saturday and Sunday October 18-19

9:00 to 4:30

1. This will be the sale. We typically need 6 people around at all times. Two to sell apples, two for the cider press operation, one cashier, and one floater in the display area to talk to the public.
2. Sunday afternoon tear down starts around 4 and usually takes about an hour.

Please help our club and volunteer to work a morning or afternoon shift, or both on Saturday and Sunday. We really need your help this year!

Worm Compost

Last year, Ruth Melulis gave us a worm composting demonstration. If you have not yet tried indoor composting, here are the basics.

1. Drill at least 200 1/8" holes in the lid of a 20 gallon opaque plastic tote.
2. Shred a pound of newsprint into 1/2" or smaller strips. Fluff and dampen in tote, adjust moisture after several hours to avoid water in bottom.
3. Sprinkle a handful of damp garden soil over the newsprint and at least 500 red wigglers (*Eisenia foetida*). Place composter in a convenient location. Elevate one end at least an inch. Check moisture daily. Mist to adjust.
4. One week later add first vegetable scraps. No meat, oily or fatty materials. Avoid citrus peels at first. Never add much citrus at one time. Initially, add no more than one pound of scraps per week. Less for high moisture materials.
5. Maintain the container. Pull back top of bedding to check progress regularly. Add more pre-dampened newsprint when starting volume is halved. By weight, most scraps are basically water. When water accumulates at low end, dip out and use on plants. Small frequent feeding of scraps keeps the worms happy.
6. Begin compost harvest at approx. 6 months. Push contents to one side, add new bedding, soil and scraps to other side. Most worms will migrate to new. Sift out finished compost. Avoid handling worms with bare hands. Redistribute materials.
7. Resources:
 - a. Chicagohomecomposting.org
 - b. U of I extension "Rotline" – 773-265-9587
 - c. "Worms Eat My Garbage" Mary Applehoff
 - d. Search of Red Wigglers online – numerous sources

Insect and Mite Pests of Apples and Pears (excerpt)

Reprinted from:

Midwest Tree Fruit Pest Management Handbook

Edited by: R.T. Bessin (University of Kentucky), P.S. McManus (University of Wisconsin-Madison), G.R. Brown (University of Kentucky), and J.G. Strang (University of Kentucky)

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, C. Oran Little, Director of Cooperative Extension Service, University of Kentucky College of Agriculture, Lexington, and Kentucky State University, Frankfort. Copyright © 1998 for materials developed by the University of Kentucky Cooperative Extension Service. This publication may be reproduced in portions or its entirety for educational or nonprofit purposes only. Permitted users shall give credit to the author(s) and include this copyright notice. Publications are also available on the World Wide Web at: <http://www.ca.uky.edu>.

Note that these are recommendations for commercial orchards.

Codling moth (*Cydia pomonella*; order Lepidoptera, family Tortricidae)

Damage: is a serious pest of apples and pears. 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.

Appearance: 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.

Life Cycle and Habits: The fully developed larva is the overwintering stage. 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 it feeds and develops. 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. In the Midwest, there are two generations and sometimes a partial third one.

Monitoring and Thresholds: 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 two or three generations should be expected throughout the year. Traps help determine timing of sprays; sprays should target larvae emerging from eggs.

The biofix for the codling moth is the starting date of the first sustained flight of male moths captured in pheromone traps. Generally, this is when the fifth moth has been captured in the trap. A few moths often emerge very early in the spring ahead of the rest. Using the fifth moth as the biofix better represents when the majority of the codling moths begin to emerge. This usually occurs just after petal fall. Sprays should be applied when 250 degree-days (50°F threshold) have accumulated after the cumulative capture of five moths per trap. Typically, 1,000 degree-days are needed to complete each generation. Growers should use an action threshold of an average of five 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.

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Insect and Mite Pests of Apples and Pears (Continued)

For one season, a grower will need a minimum of two wing traps (two plastic trap tops, two wire hangers), ten to 25 wing trap bottoms (sticky cardboard), and ten pheromone lures. Hang codling moth pheromone traps in the southeast quadrant of the tree, 6 feet off the ground. Avoid hanging traps in outside rows.

Mating Disruption: Isomate C-plus and CheckMate CM are registered for the control of codling moth. They dispense the sex attractant of the codling moth and are designed to prevent male moths from locating females for mating. This strategy, termed mating disruption, is most likely to succeed in blocks of at least 5 acres and where initial populations of codling moth are low. If mating disruption is used for codling moth control in smaller blocks, or where infestations are greater, border sprays or at least one or two cover sprays will also be necessary. Controlling codling moth by mating disruption will not control other insect pests that are controlled by cover sprays (plum curculio and apple maggots, for example). Isomate C-plus has performed better than CheckMate CM in most studies.

Chemical Control: Control of codling moth later in the season is assisted by good control of the first generation.

Plum Curculio (*Conotrachelus nenuphar*; order Coleoptera, family Curculionidae)

Damage: Plum curculio attacks apples and pears. Surface feeding and egg laying by overwintering adults can scar or misshape the fruit by harvest, and feeding by larvae may cause some premature fruit drop. Newly emerging adults in the summer feed on apples for a short time, causing round feeding scars that penetrate the fruit about 1/4-inch.

Appearance: The adult is a typical snout beetle, 1/4-inch long, dark brown with patches of white or gray. There are four prominent humps on the wing covers. The snout is one-quarter the length of the body, with mouth parts located at the end. The larva is a legless, grayish white grub with a brown head. Its length is about 1/3-inch when fully grown.

Life Cycle and Habits: Plum curculio overwinters as adults in ground litter or soil, usually outside the orchard. Adults migrate into the orchards each spring. Typically, the first signs of damage coincide with the onset of 60°F nighttime temperatures. Eggs are laid on crescent-shaped flaps cut in the skin of young fruit. Often border rows near woods are the first to show injury. Apples and pears attacked by plum curculio will drop from the tree early in the season, along with poorly pollinated fruit. When larvae are fully developed, they leave the fruit, drop to the ground, and pupate 1 to 2 inches below the surface. Adults emerge in midsummer and may feed on the fruit before leaving the orchard to find overwintering sites. There is one generation per year.

Monitoring and Thresholds: Currently there are no methods to accurately predict when plum curculio damage will occur. However, plum curculio pyramid traps are currently being tested in several midwestern states.

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Insect and Mite Pests of Apples and Pears (Continued)

Chemical Control: Plum curculio is usually controlled with petal-fall and first-cover insecticide sprays directed at the adult before egg laying. Considerable egg-laying damage can occur over a short period of time. Where plum curculio has been a problem in the past, use preventive sprays at petal fall and first cover to reduce damage. Cool weather during petal fall may delay the immigration of the adults into the orchard. Under these conditions, a first-cover and possibly a second-cover spray may be needed to control plum curculio.

Apple maggot (*Rhagoletis pomonella*; order Diptera, family Tephritidae)

Damage: Apple maggot mainly attacks apples. Egg punctures and larval feeding cause fruit to be dimpled, and if it is soft, the fruit will soon rot.

Appearance: Adult apple maggot flies have dark bands on their wings and white bands around the abdomen. There is a large white spot on the thorax. The larva, when fully grown, is about 1/3-inch long, cream colored, and legless.

Life Cycle and Habits: Apple maggot passes winter as a pupa, and adults emerge from June to September, with most adults emerging in June and July. They puncture the skin of an apple and insert an egg into it. The maggots hatch and feed by tunneling throughout the apple flesh, leaving tiny brown trails. Apple maggots are common in northern Illinois, Indiana, and Ohio and absent in the southern parts of these states. They seldom cause damage south of U.S. Highway 40. There is one generation per year (maybe two in southern range). Check with local Extension personnel for apple maggot incidence in your area.

Monitoring and Thresholds: Traps are used to monitor for apple maggot flies from early June through mid-August. Use yellow sticky traps or red spheres baited with fruit volatile lures. Place along edges of blocks nearest an abandoned orchard or woodlot; if these are not present, then along the southern edge of blocks. If traps are not used in every block, put them in the earliest-maturing variety or blocks closest to abandoned orchards. Place the trap in the outer part of the midcanopy (eye-height) of the tree in a relatively exposed spot; prune back any clusters or shoots within 6 to 12 inches of the trap.

Compare the appearance of the trapped flies with pictures of the apple maggot to be sure you are not counting a non-target species; pay particular attention to the dark patterns in the wings, which differ in the apple maggot fly and the cherry fruit flies. First trap captures usually occur in early to mid-June. Growers should spray when five apple maggot flies are trapped per ball (note: or one fly per trap if fruit volatile lure is not used). Season trapping needs include three red ball traps and three hangers, three fruit volatile lures (note: not a pheromone), and one tube or can of Tanglefoot. The fruit volatile lure lasts all season and does not need to be replaced periodically.

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Insect and Mite Pests of Apples and Pears (Continued)

Chemical Control: Control of the apple maggot needs to be directed at the adult flies before egg laying occurs. Additional sprays may be needed if traps' catch counts remain above five flies. Often in commercial orchards, sprays applied to the first several border rows are sufficient to control apple maggot flies entering the orchard.

Pear Psylla (*Cacopsylla pyricola*; order Homoptera, family Psyllidae)

Damage: The most troublesome insect pest of pears is usually the pear psylla. It sucks plant sap and injects a toxin into leaves as it feeds, causing wilting and leaf drop. It may take the tree several years to recover from the reduction in vigor. Psylla excretes honeydew on leaves, which can kill leaf tissue and lead to a condition known as psylla scorch. Black sooty mold can grow on honeydew, which can further affect the appearance and vigor of pears.

Appearance: The pear psylla is a small insect, only 1/10-inch when fully grown. The adult has a stout body with a wide head and thorax, red eyes, and wings longer than the body. The clear wings are held roof-like over the sides of the body. It looks like a miniature cicada. Eggs are yellowish orange and may be seen with the aid of a magnifier. Newly hatched nymphs are yellowish, 1/80-inch. Late-stage nymphs are hard shelled, and wing pads are apparent.

Life Cycle and Habits: Adults overwinter on the trees in bark crevices. Adults emerge, mate, and begin laying eggs when temperatures reach 50° to 60°F. Eggs are deposited in crevices in the bark and near the terminal buds. Most eggs hatch by petal fall. Nymphs move to the axils of leaf petioles and young fruit to feed. Five nymphal stages are passed before the adults appear. Females of the later generations deposit most of the eggs along the leaf midribs. There are three to four generations per year.

Monitoring and Thresholds: Look for adults on spurs and branches on warm days just before bud burst, and on the tender new shoots the remainder of the season. Eggs in late dormant to bud burst are found singly or in rows on spurs and twigs or around bud scales. Through the remainder of the season, look on the undersides of tender new growth for rows of eggs along the leaf midribs. Small nymphs are found from green cluster throughout the season on tender new growth; larger nymphs are found on leaves that are hardening off. Nymphs and adults can be monitored with beat cloths and adults with yellow sticky cards.

Chemical Control: Pear psylla is difficult to control and has become resistant to many insecticides. A delayed dormant oil should be applied as adults are emerging, but before egg laying has occurred. This is green tip in most years, but monitoring will determine more exact timing. The most important times to treat for pear psylla are at the pre-bloom (white bud) and petal fall stages.

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Insect and Mite Pests of Apples and Pears (Continued)

Leafrollers (order Lepidoptera, family Tortricidae)

Red-banded Leafroller (*Argyrotaenia velutinana*), Oblique-banded Leafroller (*Choristoneura rosaceana*), Fruit-tree Leafroller (*Archips argyrospila*) larva, adult

Damage: *Red-banded leafroller larvae* feed on apple foliage and fruit, with the last generation of the season doing the most serious damage. The larva attaches a leaf to the fruit surface with silk and feeds on apple skin and flesh. Some other species of leafrollers that can be found in the Midwest include the *oblique-banded leafroller* and *fruit-tree leafroller*.

Appearance: The red-banded leafroller is brown, about the size of the codling moth, and has broad reddish bands on each forewing. Larvae are green and slender with a light brown head; they reach a length of about 2/3-inch. The oblique-banded leafroller is brown with three dark bands on the front wings. Wing spread is about 1 inch. Larvae are small and green with black heads. The fruit-tree leafroller is a brown moth slightly larger than the codling moth. Thin light markings appear in various patterns across the front wings. The larva is a slender, pale green worm. The head is black with a black spot just behind the head. The larva reach about 3/4-inch in length.

Life Cycle and Habits: The red-banded leafroller overwinters as a pupa in debris on the ground. Adults emerge in early spring and lay eggs in masses on undersides of larger limbs. Eggs hatch at about bloom. Newly hatched larvae fold or roll leaves together with webbing and feed on foliage. There are second, third, and fourth generations in southern areas of the Midwest.

The fruit-tree leafroller overwinters in the egg stage on twigs. Hatch occurs about the time buds begin to open. Larvae feed on buds, blooms, leaves, and fruits. In June, fully grown larvae pupate inside folded or rolled-up leaves. Moths appear 2 weeks later, lay their eggs, and die. Only one generation occurs each year.

Overwintering of the oblique-banded leafroller occurs as partially grown larvae inside tightly woven cases on the host trees. During spring, larvae emerge and feed until late May. Pupation occurs, and adults emerge in June. One or two generations may occur each year. Damage is done by young larvae mining the leaves, with larger larvae feeding inside rolled-up leaves.

Monitoring and Thresholds: Leafroller populations can be sampled by both tree examination and pheromone traps. Because these species have wide host ranges, pheromone trap catch numbers are of limited value in determining economic thresholds and the need to spray. Pheromone trap catches will indicate when to monitor carefully for the

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Insect and Mite Pests of Apples and Pears (Continued)

larvae. Pheromone traps should be in place by the green tip for red-banded leafroller, pink for fruit-tree leafroller, and mid-May for oblique-banded leafroller and maintained through September. Monitor for larvae by examining the number of larvae per 100 expanding leaf terminals or fruit clusters. Use an average of four larvae per 100 expanding leaf terminals or fruit clusters for making management decisions.

Chemical Control: In the Midwest, cover sprays for codling moths and other orchard pests usually control leafrollers as well. Egg hatch of the red-banded leafroller often coincides with petal fall, so sprays applied at this time will control it. In some areas, the oblique-banded leafroller has become resistant to organophosphate insecticides, so chemicals with different modes of action may be required.

Fruit Needed for Harvest Festival

Bring your apples, pears, plums, pawpaws, persimmons, berries, nuts, etc. that you have grown for display at the Harvest Fest. These items may be sampled mid to late Sunday afternoon. Please try to keep the fruit in good condition and refrigerate if necessary. The fruit needs to be in good condition and should be labeled with your name and the location of where the fruit was grown. Bring the fruit to the Chicago Botanic Garden before 3:00 PM on Friday 17 October during the set up; Contact **Mike Modde** at 847-356-6326 or **Michael Zost** 847-541-1846 to confirm the timing. Please consider sticking around to help stay to help with the setup and enjoy the organized chaos.

Paw Paw Fruit Wanted

Fruit Request: Oriana K. is looking for paw paw fruits this fall. Call her if you have extra.

Your membership may be expiring! Check your Grapevine address label for your membership expiration date. If it says "6/30/2008" or earlier, then it is time to renew. Mail the form below.

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MidFEx Membership Renewal

Mr. or Ms. _____

Name (please print)

Address _____

City _____

State _____

Zip _____

Telephone _____

E-Mail _____

Date _____

Amount Enclosed: \$10 (1 Year) \$20 (2 Years)

Mail to: MidFEx Membership

P.O. Box 93

Markham, IL 60428-0093

The above information (name, address and phone only) will appear in our Members' Only Directory (June issue) and is never sold or rented to outside interests.

Mark your Calendar 2008 and 2009 Dates to Remember. See inside for more details. (Volunteers needed for all events!)

2008	
October 18-19, 2008	Fall Harvest Festival 2008 at Chicago Botanic Garden (Sat/Sun)
November 12, 2008	Grapevine submissions due for December issue
2009	
January 1, 2009	Renew your Membership (check your mailing label for last issue date)
January 18, 2009 (Sun)	12:00 Business Meeting; 2:00 pm Lecture - Fairchild Room, Chicago Botanic Garden
March 22, 2009 (Sun)	Grafting workshop, Cantigny Gardens, Wheaton
March 29, 2009 (Sun)	Grafting Workshop, Chicago Botanic Garden, Glencoe
June meeting	TBD
July picnic	TBD

MidFEx Officers and Contacts 2008-09

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Additional Contributors (Editor: thank you all!): Phil Hahn, Jeff Postlewaite.	Send anything of interest to Brad Platt for consideration for the web site; call Brad or e-mail at midfexweb@buildabettersite.com
Grapevine articles wanted! Deadline for articles to Robin Guy for next Grapevine: 8/12/08. Please e-mail articles to Robin's address above; in the subject, mention "Grapevine".	For membership information, see website or write: Jeff Postlewaite MidFEx Membership P.O. Box 93 Markham, IL 60428-0093

Grapevine

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