

The Grapevine

March 2016 • The Journal of the Midwest Fruit Explorers • Vol. 40 No. 1

THE PRESIDENT'S MESSAGE BY CHUCK HEISINGER

Bug Bait

I suppose that one could expect the Red Delicious apple to take a beating on the front page of the Midwest Fruit Explorers publication, and that's pretty much what happened here in the last issue. Not to prolong the torture, but our treasurer confessed to putting words to action last season and managed to offer Red Delicious apples treated with a lethal concoction as "bug bait." He strung the treated pomes out across his orchard, similar to how fishermen toss chum on the water. The bugs couldn't resist and voila, bugs be gone.

New Look for MidFEX

At the annual meeting, I announced the formation of a committee to help us redesign our website and create a discussion forum. Web technology has advanced rapidly in the last 18 months and presents us with the opportunity to maintain these sites with a modest amount of knowledge, thereby lifting the mantle of responsibility from professional programmers, namely Randy and Brad, who have been so helpful for decades. We have asked Randy to stay involved in a role that makes highest and best use of his time and saves us when we are out of answers.

We will need some help for both sites, so if you are interested in becoming a webmaster or forum moderator, please let me know. Additionally, member Deb Graham has taken the initiative to ask her nephew, Tom, to help us out in the logo design department. He is an artist in Iowa and had responded with a new logo, winning compliments from those who have seen it.

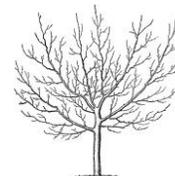
So long Bill, Hello Vanessa

Bill Scheffler has served as our secretary for the past few years. Bill is taking a demanding position with a horticultural startup in New York, so he has bowed out of the secretary position. We welcome Vanessa Smith, who has volunteered to be our new secretary. Vanessa and I joined the club about the same time. She is a long-time advocate for urban orchards, which certainly gets my vote. Thank you Bill and thank you Vanessa.

March: In like a lion, out like a lamb?

Hard to predict the weather, but MidFEX will be in full stride. On Saturday, March 5, Professor Mosbah Kushad is our guest Kurle Speaker at the Chicago Botanic Garden. We will be at the DuPage Organic Garden Club's Resource Fair on Saturday, March 19. Our two grafting workshops are scheduled for Sunday, March 20, and Sunday, April 3, at the Cantigny and Chicago Botanic Garden venues, respectively. We will hold a pruning workshop at the Walter's sometime during the month. For further details, look within this issue. If that isn't enough, I will be grafting trees with 20 summer campers at the Evanston YMCA.

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Attention Scion Donors and Seekers!!!

Attention All Members:

Have you been attending grafting sessions the last few years and noticed we seem to have pretty much the same thing year after year?

We all need to help correct this lack of new varieties. If you have space (or can make it) for a new tree get out your "Fruit, Berry and Nut Inventory" book and some catalogs. Start browsing and find something that interests you and go out and buy it. I have filled my yard with five new plum varieties last year and one pear and cherry this year from Raintree. Everyone will soon have scion wood available.

To the members who seldom come to the grafting workshops: you are needed. Many of you probably have heirloom or new varieties that those grafting workshop attendees have not seen. Please contact members who do go and arrange to transfer scion wood for the first session. They can also probably bring you back scion wood. We will be accepting scion wood donations for the grafting workshops at both the Kurle Lecture and the pruning workshop. Members not attending the Cantigny workshop are encouraged to get your harvested scion wood to one of these events.

I will again try to act as a clearing house to coordinate supply and demand for scion wood. Send me an email with what you can bring and want and I will post the requests on the forum.

!!! Important!!! Please follow the below guidelines and also please submit your scion 1) Double plastic bagged (with a small piece of damp newspaper in the inner bag with the wood), 4) Inner bag well-labeled with ***both*** fruit type and variety full names.

Dried out or old scion wood is seldom successfully grafted by anyone and we usually have many new grafters who need to be successful to encourage them.

Kevin Kuchel
[\(847\)398-6487 kjkuchel@yahoo.com](mailto:kjkuchel@yahoo.com)

MidFEx is dependent on its members to provide the wide variety of scion wood available at our grafting workshops. Success of the graft is largely the result of the care given to the harvesting and storage of the scion wood. Please observe the following guidelines when contributing scion wood:

1. Cut scion wood only from trees that are free from disease and that have fruited
2. Cut the wood while it is still fully dormant before the buds start to swell, preferably not more than 2 - 3 weeks before the workshops.
3. Cut only last years new growth that is about the thickness of a pencil or slightly less. Water spouts make excellent scion wood.
4. Scion wood should be cut into 4 - 8 inch lengths (Not whole branches) with at least 3 buds per stick.
5. Label the bundle (or ideally each stick) with the variety name.
6. Put the bundle in a zip-lock or similar plastic bag, expel as much air as possible, and seal.
7. Refrigerate. Ideally, apples and bananas should not be refrigerated with the scion wood. They give off ethylene gas that may induce the buds to open.

NOTE: When donating scion wood for the workshops, we ask donors to provide a list on a single piece of paper that lists the donor's name and the names of all the scion varieties they are donating. This will speed up the scion intake process and assist us in building a catalog of scion at the workshops.

Example:

DONOR: Jeff Postlewaite	DATE: 3/18/16
FRUIT	VARIETY
apple	mutsu
apple	gala
pear	seckel

MidFEx Grafting Workshops

Sunday, March 20, 8:30 a.m. - 4:30 p.m.

Cantigny Gardens, 1S151 Winfield Rd Wheaton, IL 60189

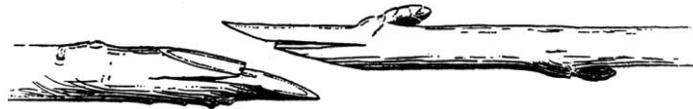
Members and their guests only at this first workshop, please! Find out what grafting fruit trees is all about. Learn the why's and how's with experienced grafters. We will also have an impressive amount of scion wood available for grafting. If you'd like more information about grafting see the Grafting Page. ****Please note:** Unless rootstocks were preordered, each attendee will be limited to three (3) rootstocks each

Setup: 8:30 a.m. to 12:00 noon.

Instruction: 1:00 p.m. to 4:00 p.m. Lecture begins promptly at 1:00. You **MUST** attend the lecture from the beginning if you are new to grafting. The lecture will be followed by a practice session. Individual help with grafting will also be offered.

Directions: Greenhouse entrance is on Shaffner Road. Reach the greenhouse by going west from Wheaton on Roosevelt Road (Illinois 38). Turn south on Shaffner about 300 yards (the only road south between the stop lights on County Farm Road and Winfield Road). Look for sign on west side.

Alternative Cantigny directions: To reach Roosevelt Road from Route 88 (East West Tollway) take the Winfield Rd exit. Turn north on Winfield Rd. After a while and a number of lights you will pass the main entrance to Cantigny on your right. The next light is Roosevelt Rd (Illinois 38). Turn right or east on Roosevelt Rd. The next road on your right is Shaffner Rd. Turn south on Shaffner Rd. Continue as above.



Sunday, April 3, 8:30 a.m. - 4:30 p.m.

Chicago Botanic Gardens, 1000 Lake Cook Rd Glencoe, IL 60022

*Morning session for Members only, afternoon session for members and general public.

Setup: 9:30 a.m. to 10:30 a.m.

Advanced Grafting: 10:30 a.m. to 12:30 p.m. Members only discussion of advanced grafting techniques for members with grafting experience.

Instruction: 1:00 p.m. to 4:00 p.m. Lecture begins promptly at 1:00. You **MUST** attend the lecture from the beginning if you are new to grafting. The lecture will be followed by a practice session. Individual help with grafting will also be offered. ****Please note:** The purpose of the grafting workshop is to learn how to graft. Non-member beginners will learn how to graft selected apple varieties on apple rootstock. Unless rootstocks were preordered, each attendee will be limited to three (3) rootstocks each.

Directions: Chicago Botanic Garden, 1000 Lake Cook Road, Glencoe. Exit either Edens Expressway (94) or Tri-State Tollway (294) onto Lake Cook Road and head east. The CBG entrance is on the south side of Lake Cook Road, just east of the Edens (41). Morning session for members only.



Additional Information: Workshop attendees are reminded to bring a sharp thin-bladed knife with a maximum 2-3 inch blade for grafting. Very sharp pocket knives and utility knives with replaceable blades have successfully been used for grafting. We will have grafting knives for sale to those that don't have a knife or find that theirs is not up to the task.

Volunteers are also still needed to help at the sessions, especially at Cantigny in the morning! We request that everyone bring newspapers – not glossy sheets, please.

Remember: Due to limited space, only individuals actually grafting fruit trees will be allowed in the grafting area. Friends, spouses and children are welcome, but should bring a good book or explore the grounds during the sessions.

Advanced Grafting Techniques and Espalier Check-In

By: Oriana Kruszewski

A grafting discussion will be held at the 2nd grafting workshop at the Chicago Botanic Garden from 10:30 am to 12:00 pm on April 3rd. Members are encouraged to bring in their grafting problems or failures to discuss with other members. We will review other grafting techniques beside the whip and tongue method such as using a bridge graft to repair damaged trunks or step graft for making a new leader, or what can be done if the scion and rootstock that are unmatched in size. If time permits, we also can talk about how to make an "inter-stem" tree for apple or pear for dwarfing purposes and to overcome incompatibility problems. For those who started a new espalier tree last year, please bring in a photo or the tree for further discussion.

Volunteers Needed at the Grafting Workshops!

Member assistance is needed at the grafting workshops for the following primary tasks:

Scionwood Sorting & Labeling: The scionwood donated by members needs to be sorted and labeled. No experience required. (Cantigny & CBG morning)

Rootstock Sorting & Tagging: The rootstock is shipped from vendors in bulk. We individually tag the rootstocks, set them in bins to soak, and setup wrapping/bagging stations. No experience required. (Cantigny morning)

Workshop Staffing: We need members at the workshops to distribute rootstock, scion wood, and grafting supplies. We also need members with grafting experience to review grafts of novice grafters. (Cantigny & CBG)

Newspaper supply: We request that everyone bring newspapers for wrapping – no glossy sheets, please.

If you can assist with any of the above tasks call or email Jeff Postlewaite (708 596-7139, Jeff@FrugalFarm.com) or Bob Walter (630-662-6819 robjwalter@gmail.com) to let them know when and where you can help.



“Spring Farm Work – Grafting”
Wood engraving on paper
By Winslow Homer

Published in Harper's Weekly on April 30, 1870, now in the collection of the Art Institute of Chicago

Use of Rooting Powder in Grafting Fruit Trees

By: Alena Gust

I sent a question about the use of rooting powder to help with grafting to *MidAmerican Gardener* (on the PBS station). They featured my question and the answer is yes. It is the first question answered in the video - here's the link to watch the episode: <https://youtu.be/wHI56ZgqlyI>

Alena's original question:

“I read somewhere that rooting powder can help grafting to "take". But reading instructions on the rooting powder it says it should not be used on food crops. Does it mean grafted fruit trees? After you graft a tree it will not fruit for several years. Wouldn't the rooting powder's effect dissipate? I live in North-north-east Illinois.”

2016 Kurle Memorial Lecture

Topic: The Secrets of Successful Backyard Orchards Speaker: Dr. Mosbah M. Kushad

Professor Mosbah M. Kushad, University of Illinois Department of Crop Sciences, will facilitate a question and answer session on tree selection, pruning, pest and disease management, and harvesting appropriate for amateur backyard orchardists. Professor Kushad last presented to MidFEx in 2006 and he received rave reviews from those in attendance. Since then, he has continued his role as a preeminent crop, fruit, and vegetable researcher. We are excited to have him back and hope you will join us!



The Kurle Memorial Lecture is offered annually in honor of Bob and Mary Kurle, conveners of the Midwest Fruit Explorers. Bob was known as one of the top fruit and nut enthusiasts in the U.S. He networked actively with fruit and nut growers all over the world. In the 1970s Bob's displays at the Chicago Flower and Garden Show focused the interest of ordinary gardeners on dwarf and semi-dwarf fruit, hybrid nuts, and promoted growing the best varieties suited to the Chicagoland area. Every winter, MidFEx remembers the Kurles and their invaluable contributions to the club by bringing in fascinating and informative speakers for the benefit of its members.

We will be accepting scion wood donations for the grafting workshops at both the Kurle Lecture and the pruning workshop. Members not attending the Cantigny workshop are encouraged to get your harvested scion wood to one of these events.

Lecture details:

Sunday, March 5, 1-4 pm, Free Admission

(Chicago Botanic Garden parking rates apply)

Chicago Botanic Garden, 1000 Lake Cook Road, Glencoe, Illinois

Upcoming Pruning Workshop

Come out to our annual member-hosted pruning workshop on Saturday, March 12 at 1:30 p.m. at the home of Bob and Annie Walters. It is a great way to gain hands-on experience with member guidance and discussion. Please bring your own tools to practice with.

Saturday, March 12 at 1:30 p.m.
Bob and Annie Walters
11310 79th St.
Burr Ridge IL 60527-5107

We hold this workshop at a different location each year. If you'd like to host it next year, please drop us a line at editor@midfex.org!



Here are photos from our winter business meeting on January 10th. The first time MidFExers get together after the winter! And it was a cold one, but everyone warmed up after the soup and pie potluck. See the minutes from the meeting on the next page.



Winter meeting Summary

By: Bill Scheffler

The 2016 winter business meeting for MidFEx was held on January 10th at the Prospect Heights Park District building. The temperature was sharply cold which kept many people comfortable at home. Sixteen people attended, however, and brought many delicious dishes which we all enjoyed. Hot soups, chili and homemade bread warmed us up and the many fruit desserts satisfied our sweet tooth. Our club eats well!

Call to Order

The business meeting was called to order by President Chuck Heisinger at 2:30pm with 16 people in attendance.

Approval of Minutes

Minutes from last business meeting (summer) were approved.

Treasurer's Report

Treasurer's report was given by Jeff Postlewaite with some discussion of accounting for inventory. Treasurer's report will appear in the February Grapevine.

Election of officers

Bill Scheffler is not able to continue as secretary due to work assignments out of state. Bill was recognized by the president for his quality service to the club.

Vanessa Smith was nominated and approved as the new Secretary.

Jeff Postlewaite was reelected as Treasurer.

Patrick was reelected as Vice President.

Chuck Heisinger was reelected as President.

Old Business

Summer picnic: Tim Hamilton volunteered to host this year's summer picnic which will be in July. Thank you Tim!

Volunteers are needed to staff our table at the DuPage Organic Garden Club Resource fair on March 19. Deb Graham and Annie Walter volunteered.

Cantigny Spring Fair will be on May 1, and we need two volunteers to staff our table. Bob Walter and Bill Lorsch volunteered to serve.

New business

Invitations were solicited for a committee to examine our web presence, redesign the website and create a web discussion forum. Vanessa, Tim, and Patrick volunteered to serve on the committee.

The floor was opened to ideas from those in attendance. Among the ideas and suggestions:

- Thoughts about selling or donating our extra rootstock to promote our club.
- Development of an in-house grower seminar? Patrick will develop.
- Book recommendation from Kevin; "Bees in your Backyard"
- Kevin encourages members to buy one new cultivar each year to expand our club selection.
- Bob Walter discussed and offered to demonstrate growing containers made from newspaper.
- Tim Hamilton showed the group a simple and inexpensive limb spreader. The club will stock some for the grafting workshops.

The meeting was adjourned at 3pm.

Respectfully Submitted,
Bill Scheffler, Secretary



Why You May Be Using the Wrong Amount of Insecticide and Fungicide By: Jeff Nielsen

For me, this story started about 10-15 years ago when I reached a critical mass of fruit foliage that overwhelmed the idea of picking up some simple "fruit tree spray" and spraying my fruit trees perhaps 10-12 times per season. I had been planting more and more trees throughout the previous 5 years and "my oh my" how quickly semi-dwarf trees from Miller/Stark Bro's grew in my beautiful, deep, black soil. Before I knew it, a 3-gallon sprayer with "Bonide Fruit Tree Concentrate" was becoming expensive. To make the matter worse, I was growing fruit tree branches and leaves, not fruit. All my trees, it seemed, were in a constant vegetative state. So I was spraying more and more with less return in actual cherries, apples, pears, or peaches. At this rate and usage of spray chemicals, I was going to spray myself out of house and home.

I looked to my mother's approach. She was a queen master gardener who was always on a peasant's budget no matter what she did. She and my dad were children of the Great Depression and it would be very UN-likely that either would grow something that wasn't economic. She sprayed commercial-like "bulk" sprays at the right time

At age five, I helped my mother sow the garden seeds. Of course, we planted, grew, consumed and stored food from our gardens. That was how you saved a buck. But my mom was progressive too. She was some of the first in Illinois to grow Illini Super Sweet sweet corn, that lovely SH2 gene that makes sweet corn truly "sweet" corn. But I digress.

While I helped my mom in the garden from the time I can remember, I didn't start spraying her trees until I was in 8th grade. Mom had splurged on a cool "trombone sprayer" and I couldn't wait to use it. At 6-1 and 190 lbs, I really knew she got that bone for me.



So, I learned her craft of spraying and pruning. Mom showed me how to measure out the chemicals and make sure I kept them in suspension as I sprayed. I was sure to cover the upper and lower parts of the leaf and the bark as well. "You have to cover everything," she would say. At the time, I enjoyed spraying those fruit trees; the trombone sprayer was cool and my mom loved having me do it. Those trees were my babies and I learned to spray and prune fruit trees just like my mother. She was a ruthless sprayer and pruner, and I was a chip off the old block it seems.

At the time, the spray was made from individual ingredients, typically Imidan, Captan and Benlate. Mom would purchase the chemicals in bulk because that was the most economic, depression-era way to do it, of course. She was careful in storing them over the winter and they worked well. I had no idea what concentration I was using other than I followed her written instructions on the white lid of one gallon, ice cream buckets - in slightly faded, black magic marker: "2 tbs per 1 gal". One trombone sprayer and 5 gallons of spray mixed per mom's label, I sprayed top to bottom and left to right, front to back and upside-down.

My first tree was planted in 1995, and can you believe it, it was a stinking Red Delicious apple tree. In my defense, it was a gift from my brother who happened to pick up some heavily discounted, end of the season trees. Having no money at the time, I was elated to get started, Red Delicious or not. Within a couple years, I moved my mother's knowledge forward by learning to graft, ironically from a gentleman from Pakistan.

Over the last 20 years, I have systematically removed all the original trees and bushes from our yard and replaced them with grafted, multi-variety fruit trees. My initial flush of plantings were semi-dwarf bare rooted trees from Stark Bro's or Miller nurseries, et al. With only 1/3 of an acre, I found it impossible to keep these "semi-dwarf" trees pruned back to fit my property and still have room to walk amongst them. These trees would grow wonderfully, but severe yearly pruning kept them in "grow" mode instead of "grow fruit" mode. In the last 6 years, my initial flush of semi-dwarf trees have been replaced with "my trees", that is specified root stock and scion. Finally, I have trees that are manageable, productive and appropriate on this property. While my mom loved my grafting success, she died before getting a chance to see "Jeff Trees."

Why You May Be Using the Wrong Amount of Insecticide and Fungicide continued:

So 10-15 years ago when I was neck deep in fruit tree leaves, I switch over to component spraying and bought bulk chemicals like my mom did for many years. By this time, I could afford "Fruit Tree Spray" but being the son of depression-era parents gave me many of the same issues with wasting money. Crap! Well, that and it seemed like 2 dollars per apple seemed like too much!!

Even with using individual component spraying, something seemed wrong. It was still expensive. I had taken my mother's recommended rate and scaled it up to 25 gallons. Doing the math, I figured my seasonal use of chemicals was out of line. I was using the same chemicals that commercial orchards used, yet by my calculations, I couldn't believe that any orchard could be profitable from using so much product. "What is I missing?" I thought to myself.

At this point, I knew I had to go back to the basic calculations and start over. I picked up a copy of the 2006 Commercial Tree Fruit Spray Guide. This guide had what I needed, at least I thought. Listed for each type of fruit was the rate per 100 gallons of individual insecticide and fungicides. Technically, chemicals are applied at rate per acre. Take Captan use for apples, for instance. In 2006, the dilution of Captan/100 gallons was 1 pound. Furthermore, it's recommended to use 400 gallons per acre, which yields 4 pounds of Captan per acre. You can use less water, but the rate per acre should still end up about 4 pounds per acre. This is the basics of commercial application. How many ounces or pounds do you put on per acre?

Well, in my yard, I don't know how many acres of trees I have. They are all differently sized trees with various spacing, etc. I don't have the luxury of calculating acreage and applying the correct amount per acre. My spraying style is different as well. I "spray to drip." That is, I spray all parts of the tree, including upper and lower leaf surfaces and the bark as well. Ideally, I stop spraying just before the surfaces start to drip, i.e., "spray to drip." So in the end, I am spraying a concentration, not a total amount product per acre. So, if I spray a certain concentration and the tree is completely wet, adding more spray will not help because it simply drips off. More spray just wets the ground and I am relatively certain that run-off is not desirable for economic or environmental reasons. Since the standard dilution is "product/100 gallons," I choose to use this concentration as well. I suppose it would be possible to double the rate or concentration and then try to spray half of the leaf surfaces, but that seems ridiculous. Unfortunately, there isn't an application rate for "spray to drip" so I just use the same rates as the commercial grower use: product in dry weight/100 gallons.

Soooo, done, just use commercial dilution rates, right? Well, yes and no - be careful! While the application rates are clear, there is still another issue that may cause significant error. It's related to the way homeowners commonly measure out dry products, that is, by volume; teaspoons, tablespoon, cups, etc. For dry powders, measuring by volume is perilous. For example, instead of homeowners measuring out 2 ounces of a product, they are measuring a volume of product that hopefully represent that weight, say 3 tablespoons or whatever. Sounds innocent enough, but it is not. The problem with this thinking is that volume does not take into account density of a dry material. Choosing volume over accurate weighing can lead to a 3x magnitude of error. Like my mom would say, "you are just throwing money down the drain."

In the commercial guide, all rates are given in ounces or pounds of dry powered chemical per 100 gallons. Well, when is the last time you used a scale to measure chemicals? Yeah, you haven't. I didn't either! You and I used a table like this one that shows how much to use in volume when the rate calls for a certain weight of product. This chart assumes all product are the same density.

Approximate Dilutions for Small Volumes of Spray Mixes

Equivalent rates for different quantities of water				
Formulation	100 gallons	5 gallons	3 gallons	1 gallon
	5 pounds	15 tablespoons	9 tablespoons	3 tablespoons
	4 pounds	13 tablespoons	8 tablespoons	8 teaspoons
	3 pounds	10 tablespoons	6 tablespoons	2 tablespoons
Wettable Powder, Dry Flowable, etc.	2 pounds	8 tablespoons	4 tablespoons	4 teaspoons
	1 pound	3 tablespoons	6 teaspoons	2 teaspoons
	1/2 pound (8 oz)	5 teaspoons	1 tablespoon	1 teaspoon



dry weight → volume

So to use this chart for example, if the commercial guide calls for 2 pounds per 100 gallons, you would use 8 tablespoons per 5 gallons. It's that simple, right?

Wrong!

Why You May Be Using the Wrong Amount of Insecticide and Fungicide continued:

This chart ASSUMES that all dry chemicals have the same density. They DO NOT!!

To understand this density error, consider the density of flour versus sugar. Both are dry chemicals, but the weight of a cup of sugar versus a cup of flour is remarkably different and you don't have to weigh them to know that. And, even the density of flour can change greatly. Any good baker knows there is a difference between sifted flour and un-sifted flour. Well, the difference is density, that is, weight per volume.

So while this chart may be accurate for some chemicals, it surely is NOT correct for others. In 2006, I found the best digital scale I could and my wife and I weighed and measured the chemicals I was spraying. For instance, I found that a cup of:

Captan - 172 grams/cup
Imidan - 87 grams/cup
Topsin - 67 grams/cup

See the problem? Captan is almost three times as dense as Topsin and twice the density of Imidan. The chart above assumes they are all the same!! Yikes!! With the information on commercial spaying rates and product densities, I have reduced the chemical use to about 35 percent of what my mother and I were using previously. I still can't believe my mother was overusing a product!! Lol.

I am going to go out on a limb here and say that there aren't too many people who are doing these conversions correctly and weighing small amounts of spray product. I will say that if you are mixing a couple of gallons, or even 5 gallons, that's because you are using such small amounts of spray that the accuracy is moot. You aren't going to save much because you aren't using very much. And that may be why the first chart reads "for small volume of spray."

In my case, where I am mixing up 25 gallons of spray, it's a significant cost savings even at this low level use of chemicals. Commercial orchards use bags of chemicals at known weights, just read the weight from the bag! For instance, Imidan comes in a 5 pound plastic bag. Inside are five, 1 pound water-soluble bags that you just throw in the tank without opening or puncturing, no fuss, no muss, very accurate, just add water.

My mom didn't have the internet. As it turns out, I found someone that understood this issue of density as it applies to the home owner and spraying. Apparently it was a grad student who produced this data, but I have found it to be faulty compared to my measurements. I wrote the University of Kentucky and one of the professors changed one of the values but didn't have time to check all of measurements. The error could have come from weighing a small amount, it could have been that different manufacturers of the same chemicals have different densities, or it could be a moisture absorbing issue (or other). Here's the link to that chart:

<http://www.uky.edu/Ag/Horticulture/masabni/Publications/HO-83.pdf>

Summary: if you are looking to reduce your chemical usage and make application more accurate, purchase a digital scale and weigh the chemicals yourself. If you hold chemicals from year to year, the density could change as well, that's tricky. Ideally, you use new chemicals each year but my mom would have none of that! Some products come pre-weighed. For instance, Imidacloprid comes in 1.6 ounce bags and by my measure, it's exactly a half cup. Thus with simple math, I know a teaspoon is 1.4 grams. I would suggest taking many samples, fluffed and not fluffed, etc. and average. Weigh a half or full cup of the product, be consistent on how you measure. Be careful, wear a mask (concentrated chemicals are the most dangerous), use gloves, a chemical laboratory hood is the best choice if you can get access at a university, etc.

Good luck. Thanks for listening.

Grapevine Articles Wanted!

Deadline for articles to Robin Guy, gathering editor, for next issue is May 12, 2016. Please e-mail articles to Robin at editor@midfex.org and type "GRAPEVINE" in the header. We want to hear about all things fruit – related articles, discoveries you've made, recipes, your success stories and failures. By sharing with the group, we will all learn!

Monitoring for Winter Injury in Brambles

By: Bronwyn Aly (University of Illinois Extension specialist and co-editor of *The Illinois Fruit and Vegetable News* 618-382-2662; baly@illinois.edu) Reprinted with permission from *The Illinois Fruit and Vegetable News* (Volume 22, number 1) To reach the home page for the *Illinois Fruit and Vegetable News* (with links to all issues and additional resources), use the following link: <http://ipm.illinois.edu/ifvn/index.php>

Typically, winter injury in brambles occurs in mid to late winter through early spring as fluctuating temperatures cause the plants to begin to de-acclimate and become less cold hardy. In general, brambles have reached their chilling requirement and are the most cold tolerant or least susceptible to winter injury by the end of December to the first of January. Keep in mind that this past December has been relatively mild and we are just now feeling some of the colder temperatures of the season. Within bramble crops, summer-bearing red raspberries and purple raspberries tend to be the most cold-hardy while blackberries tend to be the least cold-hardy. Winter injury on brambles is seen as tip dieback or bud-kill in the spring.

One way for growers to assess winter injury is to take some cane cuttings in mid to late January (after chilling requirement has been met) and monitor how many buds develop into shoots. Canes should be cut at the base and placed in water in warm conditions (room temperature) and change the water every couple of days to keep bacterial growth from starting. After two weeks, buds should begin to grow and those that develop into shoots would likely have produced fruit while those that don't grow are dead. Growers can then estimate the percentage of bud loss due to winter injury. It is important to remember that cane cuttings should not be taken too early in the winter, before the chilling requirement has been reached, as plants would be in the "rest" phase of dormancy and could give growers an inaccurate winter injury estimate. Growers should keep in mind that cold hardiness differs between varieties and locations, so each variety may need to be sampled depending on location and circumstances. By monitoring the amount of winter injury on a crop, growers may decide to delay pruning and/or leave a few extra canes.

Fruit Stamps 2016 By: Robin Guy

This year, the United States Postal Service will issue three stamps bearing drawings of fruit. These are not Forever stamps, but it is nice to get a nod from the USPS!

Apples 1-cent - Illustrator John Burgoyne used pen, ink and watercolor to produce the original art of Albemarle Pippin Apples under the art direction of Derry Noyes.

Grapes 5-cents - Burgoyne also was the artist for the two clusters of Pinot noir grapes growing on vines among several green leaves. He created the stamp art under the direction of Derry Noyes.

Pears 10-cents - Burgoyne and Noyes also created this stamp featuring two red pears on a white background.



New Fruit Forum: growingfruit.org By: Patrick Driscoll

There is a new fruit forum (besides that of the Home Orchard Society Forum.) The new one is called *Growing Fruit*. It can be viewed here: <http://growingfruit.org/>

The layout is real simple. There is page after page of topics where someone asks a question and people answer. If you want to ask a question or respond to someone else's question you just have to sign up as a member, and it is free. You enter your email address and create a password. The site sends you an acknowledgement and you click on it and you are a member. Simple. Also, when you reply to a question, you can select to have the site send you an email when there is a follow up reply to you.

Your membership may be expiring! Check your address label or email message that delivered the Grapevine for your membership expiration date. If it says “3/31/2016” or earlier, it is time to renew!

MidFEx Membership Application

New Member Renewing Member

Name (please print)			
Address	City	State	Zip
Telephone	E-Mail		

Membership Options, please only choose one:

US Mail Grapevine Delivery: \$30 (1 Year) \$50 (2 Years) \$65 (3 Years)

Email Grapevine Delivery: \$20 (1 Year) \$30 (2 Years) \$35 (3 Years)

Make check payable to **MidFEx** and 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.

Summary of Financial Status 1/1/2015-12/31/2015

Summary of Income:	
Harvest Festival	6,289.00
Grafting Workshops	3,389.75
Memberships	1,635.00
Misc Sales (picnic auction, sales to members)	353.00
Interest	1.51
Total Income:	\$11,668.26
Summary of Expenses:	
Harvest Festival	4,407.58
Grafting Workshops	3,425.03
Grapevine	1,558.62
Picnic	686.66
Insurance	590.00
Meeting Expenses (speakers, refreshments, etc.)	1,613.06
Other Correspondence	102.65
Illinois NFP filing fees	10.00
Web Site / Internet	221.30
Cider Press Maintenance	91.83
Total Expenses:	\$12,706.73
Net Income (Loss):	(1,038.47)
Treasury Balance as of 12/31/15:	\$7,901.71

Notes:

1. Harvest Festival expenses include fruit butters still in inventory.
2. Grafting Workshops expenses include knives and root bags still in inventory.

MidFEx Calendar	
March 5, 2016	Kurle Memorial Lecture – Dr. Mosbah Kushad – Chicago Botanic Garden, 1-4 p.m.
March 12, 2016	Pruning Workshop at Bob Walters , 11310 79th St. Burr Ridge IL 60527-5107, 1:30 p.m.
March 20, 2016	Grafting Workshop , Cantigny Gardens, Wheaton, IL - 9:00 – 4:30 p.m.
April 3, 2016	Grafting Workshop , Chicago Botanic Gardens, Glencoe, IL - 9:00 – 4:30 p.m.
May 12, 2016	Submissions due for the next issue of the Grapevine
Summer 2016	Summer Picnic – Tim Hamilton’s Orchard - Date and Time TBD
October 16-17-2016	Fall Harvest Festival at Chicago Botanic Gardens, Glencoe (16th set up)
Date TBD	Apple Cider Social, Location TBD
MidFEx Officers and Contacts	
President: Chuck Heisinger Secretary: Vanessa Smith Vice-President: Patrick Driscoll Treasurer: Jeff Postlewaite	
<p>MidFEx Online Forum: Members are invited to join the MidFEx forum. Get advice and share your fruit growing experiences with other members. Subscribe to the forum at: http://lists.ibiblio.org/mailman/listinfo/midfex</p> <p>Forum Administrator: Sherwin Dubren (sherwindu@att.net)</p> <p>Membership: Use enclosed application, see website, email membership@midfex.org Or write: MidFEx Membership, P.O. Box 93, Markham, IL 60428-0093</p>	<p>MidFEx Web Site: http://www.midfex.org Send anything of interest (links, photographs, fruit info, etc.) to webadmin@midfex.org for consideration for web site posting.</p> <p>Member Area first time login: username is your last name (case sensitive exactly as on your address label) plus a '-' plus your 5 character zip code. Example "Doe-60010". password is your username as described above plus a '-' plus your membership expiration date expressed as 6 numeric characters. Example "Doe-60010-063012"</p>
<p>Orchard Guide: Local on-line fruit growing resource developed by a MidFEx member. You enter in the varieties of fruit trees that you are growing. The site estimates when pests will appear based on local weather reports so you can exercise spraying or integrated pest management (IPM) more efficiently. Post feedback on your growing experiences with specific varieties, and read feedback from others about which varieties do well here and which struggle. Access from midfex.org home page after logging in.</p>	
<p>Grapevine articles wanted! Deadline for articles to Robin Guy for next issue: May 12, 2016. Please email articles to Robin and type "GRAPEVINE" in the header. Grapevine Gathering editor: Robin Guy (editor@midfex.org) Layout editor: Vanessa Smith</p>	