The North American Fruit Explorers (NAFEX)

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NAFEX Apricot Interest Group

Bob Purvis

Scionwood Availability for Spring 2013

From various sources, there should be adequate supplies for a 6-inch stick for any AIG member who wants to graft a few trees of the following varieties: Afghanistan, Alfred, the Alice Sharp white apricot, Apache, Brookcot, Castlebrite, Corbett, Debbie's Gold, DR-606, Goldbar, Goldensweet, Golden Giant, Harcot, Harglow, Hargrand, Harlayne, Harogem, Helena, Henderson, Hoyt Montrose, Jerseycot, Lorna, Montrose, Moorpark, Morden 604, Nicole, Orange Red, Precious, Puget Gold, Robada, Rushmore, Stark SweetHeart, Sugar Pearls, Suphany, Tomcot, Ultra-Orange, Westcot, and Zard. With only a few exceptions, there was good terminal growth of the trees in my orchard in 2012.

Personal Notes

As I did in 2011, I made a trip to Elko, NV to deliver apricots (primarily Robada, but also Tomcot, plus sweet and tart cherries) to friends, relatives, and neighbors of AIG member **Hal Barkdull**. In early August, God worked through a Homedale vegetable grower, **Bart Rayne**, to open three doors to market my fruit. The first was a one-time sale of Harogem, Helena, and Lorna apricots (as well as Summercrisp and Ubileen pears) to ***Paul's Market*** in Homedale, the only supermarket in town. The second was selling fruit every Wednesday in August and September at the ***Caldwell Farmers' Market***. The apricots that were large, firm, well colored, and with a traditional apricot flavor sold fairly well, but many people felt the Sugar Pearls apricots were too sweet; and they were too soft and fragile to sell to Paul's. Because many people in the western Treasure Valley have backyard apricot and prune trees, marketing apricots is not as easy as marketing peaches or sweet cherries. I was surprised at the popularity of early pears such as Hudar and early European plum cultivars. Early peach cultivars also sold very well, for example Risingstar.

The third door that opened to me was at the College of Idaho. My first sale of apricots to them was of Westcot, Debbie's Gold, Morden 604, Jerseycot, and Tomcot. Concerned that perhaps the executive chef who manages the food service, **Tim Reinbold**, might not like the flavor or size of the cold-hardy apricots, I asked only $0.60/lb for them but $1/lb for the Jerseycot and Tomcot. So, I was shocked when Tim, tasting a Morden 604, said, "Wow, these are really sweet!" I tried one and yes, they were.

All five cultivars (50 lb of fruit) were made into apricot jam since school was not in session on August 1. Tim has continued to buy other fruit (pears, plums, apples) from the orchard up until the very day I am writing this article, January 18.

Gaillardia

I added a third row of apricot trees to my orchard this spring, to include such notables as Alfred, Corbett (from **Barry Todd**'s cousin's tree in Colorado), DR-606, the original Montrose, Orange Red, Skaha, Stark SweetHeart, Sundrop, Ultra-Orange from next door, and Westley, plus two unsold trees (a Harogem and a Harlayne). Grafted onto Manchurian seedling in 2011, they all struck root and grew well in 2012.

My goals in 2013 are to continue collecting bloom and harvest data, to install soil moisture monitors in strategic locations in the orchard and nursery, and to arrange to inject liquid fertilizer or sulfuric acid into our irrigation water. And, of course, I plan to continue offering scionwood and finished apricot trees, especially of cultivars not offered by other nurseries, and to chair AIG, this Group of apricot lovers.

Rootstock Notes

As I did in 2012, I ordered 300 Manchurian apricot rootstocks from **Lincoln-Oakes Nursery** and 100 St. Julian A rootstocks from Lawyer Nursery in Plains, MT. The SJA's are 1/4" caliper; the Manchurians, 3/16" and 1/4". Members of the AIG who are in need of small quantities of rootstocks to graft may contact me if they wish, but note that **Raintree Nursery** also offers Manchurian at this time.

In mid-December I received an e-mail from **Alan Leonard** at **Cummins Nursery**. He commented, "Just a quick note to let you know we have determined that Westcot and Debbie's Gold are both incompatible with Krymsk 1. Starting with spring 2014, we will only be offering these varieties on Manchurian seedling, at least till something else comes along. Both varieties had great stands this season though frosty spring weather nixed many of the other varieties, and both grew very well all season long. But shortly before digging time I noticed the tell-tale gum of bacterial canker oozing from the majority of the unions, and sure enough the trees snapped there under the slightest pressure. Not one proved worthy of sale."

Bacterial canker is a serious issue for apricot growers in western NY, according to nurseryman **David Schlabach**. It is the main reason for tree death or shortening an apricot tree's life there. Painting the trunks of the apricot trees with white latex paint has proven to be a highly effective practice in preventing this problem, according to Schlabach, who learned about this practice from **Tom Callahan** of **Adams County Nursery**.

David told me (January 21, 2013) that Krymsk 9 is looking promising as a semi-dwarf rootstock for apricot, with only one cultivar to date proving to be incompatible with it. I had five nice Krymsk 9's here but was unable to bud them before they got too big, so they and my unbudded monster K.86's had to "feel steel" and be uprooted this fall. Krymsk 86 is "too unruly" to use as a rootstock at Schlabach's. David also said that more and more New York orchardists are planting apricot trees for commercial production.

The Tree Connection in Oregon is a source of both rootstocks and finished trees for commercial growers. I've ordered quantities of Krymsk 1 and 86

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Harogem apricot

and other rootstocks through them in the past for my nursery and grafting classes. On January 31, **Adam Weil** (son of the owner) told me that as of this winter, they will only accept orders for whole bundles of rootstocks—no broken bundles. (A bundle of 3/16 or 1/4" caliper rootstocks is 50 plants.) They still have "some" Krymsk 9 rootstocks in their inventory. At least one AIG member has expressed an interest in acquiring Krymsk 9, but I do not have the need at present for 50 K.9's in the nursery. If anyone else is interested in getting K.9's, please let me know soon. This rootstock reduces apricot or plum tree size by 50%, does not sucker, and is both cold and drought tolerant. It is a cross of Prunus armeniaca (common apricot) x Prunus cerasifera (myrobalan plum seedling) and also goes by the name of Myrocot. I would have ordered a bundle on the spot if I did not already have 100 St. Julian A's on order from **Lawyer Nursery**.

Cultural Practices - Insect Controls

Although I was blessed with a good crop of Robada and other apricots in 2011 a cool, wet spring resulted in a massive infestation of earwigs in not just my orchard but in many other orchards and gardens in the Treasure Valley. Cullage due to earwig damage amounted to 16% of my Robada crop that year, or about 71 lb. Meanwhile in both 2011 and 2012, we had some chronic problems with sugar ants in our kitchen. After an online search, Connie (my wife) found a product called **InTice, made by Rockwell Labs Ltd., North Kansas City, MO 64116.**

InTice is a granular bait, **5% orthoboric acid** (the active ingredient) and 95% inert ingredients, looking somewhat like bran flakes. For outdoor use, the label recommends 2 lb/1,000 square feet or 90 lb/acre. Searching online for a retail source, I found that is is sold by **Do-It-Yourself Pest Control**,

1-800-476-3368

The cost for a 5-lb bag is $30 to $40. The signal word on the label is ***Caution***. It is formulated for both indoor and outdoor use against ants, roaches, crickets, mole crickets, silverfish, sowbugs, pillbugs, earwigs, centipedes, and millipedes. The ant problems cleared up within several days. Applying it around my apricot trees a few weeks before harvest began, I later found that not one apricot from the treated trees had an earwig inside of it! It is only necessary to apply a band of it to the soil close to the trunk of the tree for protection. (Of course, this also assumes that your tree branches are not dragging on the ground and affording the earwigs easy passage to the fruit.)

Another product which has been key to controlling lepidopterous (moth and butterfly) insect pests is **Altacor**, active ingredient **rynaxpyr**, manufactured by **DuPont**, signal word ***Caution***. I used this in the orchard in 2011 and 2012 to control codling moth, leaf rollers, Oriental fruit moth, and peach-twig borer (the "worm" in ripe peaches or apricots) with great success. Altacor is not a restricted-use pesticide, unlike **azinphos-methyl (Guthion)**, and is not harmful to birds, bees, fish, or mammals. It works both as an ovicide and

KDL Update

Dell Christianson, the horticultural tech representative for **Agro-K Corp.,** advises that acidifying agents such as Sysstem-Cal (formerly known as Vigor Cal Phos) or household vinegar be added to the spray tank before adding KDL. Dell also mentioned that at 16°F, Zestar blossom buds show more frost tolerance than those of Honeycrisp.

I sprayed 3 ounces apiece of KDL and Vigor Cal Phos per gallon of water, on my apricot, peach, Japanese and hybrid plum trees April 4, using four gallons of spray. On April 7, temperatures fell to 20°F in the orchard.

The Harlayne and Harglow apricot trees, in a bit of a frost pocket, lost most of their crop from the 4' level to the ground but had a good crop above that. My Harogem, even further downslope than the Harlayne, had almost no crop loss and required lots of fruit thinning later. This surprised me because Harogem blooms earlier than Harlayne. However, there was zero crop loss on all the rest of my apricots except Harcot (next to Harlayne). We also had an excellent crop of peaches and plums.

larvicide and causes serious injury to adult insects as well. It is most effective for the first generation of codling moth and leaf roller, and I typically use it on peach-twig borer about June 15-25.

The product is not cheap (a **16-oz bottle costs $235 locally at our Wilbur-Ellis chemical dealership),** but the label rate is 0.033 oz/gallon of water, so with my 15-gallon sprayer it costs about $7 per application to protect the apples, pears, peaches, and apricots from those pests. Formulated as dry granules that look like chocolate sprinkles on cupcakes, it does require some stirring to dissolve fully in water.

Using it twice for the first generation of codling moth and peach-twig borer, I've had zero damage from these pests on my apples, apricots, and peaches. However, Altacor is not effective against plum curculio or peach-tree borer, a clear-winged "moth" that is really not a moth. Many of the commercial orchards in Idaho and the Pacific Northwest are now using Altacor rather than organophosphate products for lepidopterous pests. The only caution here is that because Altacor is not made from natural sources, **it is not labeled for use in organic orchards.**

Puschkinia

Cultivar Comments

As in 2011, thanks to KDL, I was able to get a good apricot harvest and make lots of observations and notes on how the different cultivars performed. Here are some of the highlights, things that I learned by observation and tasting.

Concerning Apache, my earliest-ripening apricot, its fruit size is small to medium and requires multiple picks. The fruit is very firm and does not bruise if it drops on the ground, and it is mostly freestone. There is a fairly short interval between its being tight on the tree and dropping off. When ripe, the fruit is very juicy. I leave them in a fruit-ripening bowl for 1 to 2 days after harvest to bring them to optimal eating quality. In SE Minnesota, orchardist **Harry Hoch** is attempting to grow Apache commercially on a small scale. The cultivar originated in **Craig Ledbetter**'s USDA-ARS apricot breeding program in Parlier, CA.

My Afghanistan and Suphany trees, both on Krymsk 1 rootstocks and in their second season in the orchard, bloomed well and bore a small crop of fruit this year. What a thrill it was, after reading for years about the flavor of these two cultivars, finally to taste them! Both are pale yellow in color and very sweet. I did not try to crack open the pits and taste the kernels, but in all likelihood they are sweet. The skin on them is tender, and over-irrigation was perhaps responsible for some of them splitting at harvest. They were the only apricot

KDL Update continued

Also noteworthy is that on April 28, there was widespread frost in the Treasure Valley that did serious damage to the cherry crop. My KDL application had long since worn off. Temperatures fell to 26°F next door (Garfield Shults' orchard), but they were 37°F on our home site and 35°F in the orchard, even though it is downslope from Garfield. Winds were calm.

There is no way to explain this except as God protecting my trees. I was in western Nevada that morning and knew nothing about the weather back in Idaho. (I had a full crop of cherries at harvest in June.)

AIG member **Dan Sheild** recently attended the **MN Fruit & Vegetable Growers Assoc.** annual conference. **Jim Birkholz,** an orchardist in Taylors Falls, MN, gave a presentation on the use of KDL in his apple orchard.

Jim had temperatures in the 70s and 80s in his orchard in March, and then 15°F in April below the bloom line (the lower branches of his apple trees). Jim sprayed his orchard with KDL a few days before the April 10-11 freeze event and had 90% of a normal crop.

cultivars to attract the attention of ants. Both are low-acid fruits, somewhat similar to Sugar Pearls in color, flavor, bloom time, and softness. They are too soft for shipping. Growing side by side, I noted that Suphany is much more vigorous than Afghanistan and grows later into the summer before setting terminal buds. Both trees have wide crotch angles as grown on Krymsk 1 rootstocks. Given their high sugar content, I would think that Afghanistan, Suphany, and Sugar Pearls would all make delicious dried apricots.

My Zard tree, budded to Manchurian apricot, bloomed well and set a large crop of fruit in its 2nd season in the orchard. Zard, in contrast to the other two Central Asian 'cots, has narrow crotch angles; and this proved to be its undoing. (Note: **John Fuerst**'s Zard tree also has narrow crotch angles.) As the fruit ripened in early July, strong northwest winds broke two of the three leaders away from the third. I used screws and baling twine to put them back in place. A week later, strong southeast winds broke off the entire tree about 2 feet above the ground in a 'greenstick' break, with a narrow strip of bark joining the top and bottom of the tree. (I thinned more of the apricots at that point.) The leaves stayed green for a while, and the fruit gradually ripened, but I finally had to cut off the broken part entirely. After that, vigorous shoots arose from below the cut. The Zard fruits were pale, but blushed, somewhat firmer and much better keeping in the cooler than Afghanistan or Suphany; and they did not attract ants at all.

The Lorna apricot was notable for its large crop, firmness, deep-orange color, uniformly large size, and robust apricot flavor. It appears from **Dave Griffin**'s work with crossing Lorna and Robada with Westcot and Brookcot that Lorna is more cold-hardy than Robada, and Lorna is fully self-fruitful. With its later ripening date, Lorna is an excellent complement to Robada and shares with Robada a somewhat spreading growth habit.

KDL Update continued

He was the only apple grower at the meeting with close to a normal crop. It appears that his apple trees were not far from blooming when this happened.

Agro-K Corp. has cautioned, however, that the efficacy of KDL in preventing frost damage is dependent upon the depth and duration of the frost as well as upon the bloom stage of the tree.

Field researchers at Agro-K found that there was more bee activity on peach blossoms in Michigan after the application of KDL. Might this be because of the higher sugar content induced in the blossoms?

www.agro-k.com

(800)-328-2418

Nursery Stock Size and Survival

Although it is common knowledge that smaller trees suffer less transplant shock when dug up than do larger ones, our **Wilbur-Ellis** fieldman, **Tom Lyon,** also commented to me that smaller trees have fewer carbohydrate reserves stored up, simply because of their size, and as such do not have as great an ability to survive adverse conditions if they are prolonged or severe, as larger trees do.

The Hoyt Montrose was late blooming (with or even after Zard) and late ripening. Flavor was good on the fruit, but they were smaller and not as flavorful as Robada or Lorna. The tree added lots of new growth in 2012.

Golden Giant, I discovered, not only had pretty good size but it also was firm and kept until early September in my cooler. It also is one of the later and longer-blooming apricots in the orchard.

With reference to the Prairie Province apricots and Precious, my Brookcot had a heavy crop and vigorous terminal growth, as did Precious. The crop load on Westcot, Debbie's Gold, and Morden 604 was the best the trees had ever had although still modest compared to Tomcot, Lorna, or Robada. Nicole and Florilege both bore apricots, but the trees were young and the crop, small. Although the mother tree of Jimmy Thomas was unprotected from our 20ºF frost on April 7, it bore an enormous crop of apricots. Helena, once again, set a heavy crop and required a lot of thinning, but the fruit firmness and flavor were good enough to sell at Paul's and also at the farmers' market. There were a few disappointments: vigorous growth but a relatively light crop on Jerseycot and Goldbar.

Growing side by side in the frost pocket of my orchard, I noted that even though Harogem blooms earlier than Harlayne, it set fruit from the 2' level to the top of the tree, whereas our 20ºF frost knocked out most of the apricots below the 4' level on the Harlayne and Harglow. (However, there was an excellent fruit set above the 4' level on the latter two trees.) So, it is possible that Harogem's blossoms are intrinsically more frost-tolerant than Harlayne's. The fruit quality of Harogem was sufficiently good to sell commercially. My Harcot tree grew vigorously, but its total crop growing next to Harlayne was only 6 apricots. My Goldensweet tree died late this summer, but the Goldensweet I planted at a friend's house several miles away in 2009 is now 11 feet tall and in excellent vigor. Another Goldensweet tree planted in 2009 25 miles north of Homedale had a heavy crop in 2012.

The ***Winter 2013 POMONA*** contains an article I wrote, ***"Bloom Time on Apricots in Southwest Idaho,"*** p.13, that has detailed information on the cultivars in my orchard. If you are unable to access the article, let me know and I will send a copy to you as an e-mail attachment. Both **Norm Strickland and Martha Davis** furnished me with detailed bloom-time observations from western PA and central NM, but time did not permit trying to integrate their observations with mine, so that will have to await another Newsletter. This ***POMONA*** also contains an article by **Hal Barkdull** about orcharding in northeast Nevada (p. 28).

Phlox paniculata

Member Reports

Northeast/Middle Atlantic

Richard Melrose now has only one tree, a 10-year-old Westcot that continues to grow well, if slowly. The other apricots he has planted have succumbed over time to fungal infections that seem to attack sites of winter injury. This is also a problem on peaches, cherries, and even hybrid plums at his southern Vermont location. As with many other AIG members in the northern half of the U.S., Richard experienced an extended warm period in March followed by cold (down to 12ºF).

Philip Rainville in central Massachusetts, though not an AIG member, gave me a lot of useful information just after Newsletter #14 was published. At his location, Tomcot is "a reliable producer" of good-quality fruits although not quite as productive as Hargrand or others from the Harrow breeding program. Rain was not a problem for him in the 2011 growing season, and the low for the winter of 2011 was only -15ºF.

Phil noted the good flavor of apricots from the Pakistani seedlings he has. Concerning other apricots, about the very early ripening Sun Gem and EarliBlush, he said they were "not bad". Goldrich shows very little scab and is large and firm, but one must wait till it is fully ripe to develop a good flavor. (Goldrich is grown commercially in both Idaho and in WA State.) There are a lot fewer rootstock suckers from Goldrich grown on Montclar plum versus myrobalan plum seedling, suggesting better compatibility. Puget Gold apricot has been removed, and although he has planted new trees of Afghanistan, he's a bit disillusioned with the cultivar because "it is not real productive."

Of his seedlings of Afghanistan, some do have white flesh, but others yellow or orange. Jerseycot is reliable, cropping almost every year, but its flavor not as good as Tomcot's; and it has had some cosmetic problems. Skaha's flavor is not quite as good as Tomcot's for him. Sugar Pearls in 2011 was just a graft that had not yet fruited. Henderson is vigorous, not productive, and the fruit is not that great for him. Helena is not real vigorous. He has two young trees of Robada on trial also. Phil's soils are heavy clays, and Citation rootstocks die after 4-5 years there, usually just as production begins on an apricot tree grafted to it.

David Rogers, in northeast NY State, had weather similar to Richard's, followed by a hot, dry summer. In 2011, his Precious apricot tree had blossoms and fruit, but the fruit later rotted although he did get 5 apricots fit to eat. Dave noted that his Manchurian seedling apricot blooms before Precious. Sad to say, Harglow has never set fruit since being planted in 2002. Following Michael Phillips' example, he is using ramial bark chips around his fruit trees. With regard to peaches, he noted that Contender had a crop in both 2011 and 2012 and that it has survived -20ºF in his location. Dave feels that Contender is as hardy as Veteran.

Soil and mineral nutrition are topics of great interest to Dave, whose soils are very sandy. He is using Growers Mineral Solution, made from food-grade urea, phosphoric acid, potassium hydroxide, and sea minerals, on his trees and garden crops. Growers, the manufacturer, is based in Ohio. They recommend bring calcium up to 85% of the cation-exchange capacity of one's soil, saying that this will greatly reduce problems from verticillium wilt, cutworms, late blight, and cucumber and potato beetles. He also encouraged me to look up the NRCS "Web Soil Survey", which lists CEC and water-holding capacity of soil types around the country.

Dave Strayer cited the winter of 2011-12 as unusually mild, with a low of 7ºF at his SE New York State location. Spring came very early; all four of his apricot cultivars (Jerseycot, Skaha, Sundrop, and Puget Gold) began to bloom March 21 and were in full bloom 21-25 March. These were the earliest bloom dates he has ever seen (by a week) in any year of the 18 he has made observations.

He recorded 24ºF on March 27, and 8 days between 29º and 32ºF from 2-30 April, 2012 including a 29ºF on April 29. Very few apricots survived the frosts. Jerseycot harvest was 5 fruits, July 1; Sundrop harvest, 30 June to July 3, 9 fruits. These are also the earliest harvest dates he has ever seen. Dave planted a Harogem on K.1 this spring but will take out his Jerseycot this winter because it is heavily shaded by a neighbor's big oak tree. He is converting from free-standing to fan-shaped trees to improve sun exposure.

Scott Smith (Baltimore, MD) had no problems with spring freezes in 2012. He is in the midst of changing over varieties after giving up on many of the Hunza and white apricots that he was trying, and he also pruned back severely his other apricot trees. His Tomcot crop was smaller thanks to pruning, but the fruits were large and the quality, excellent. It is by far his favorite cultivar to grow there. His Moniqui apricot produced some very tasty white apricots. This cultivar sets fruit very early and is at high risk from plum-curculio damage, but a timely spray with Surround controlled the insects and rewarded him with a harvest. There are still questions, however, about how productive Moniqui, an apricot from Spain, will be over the long run.

Member Reports -- continued

Norm Strickland, in western PA, had a good bloom on all his apricot trees the first day of spring, 2012. On the night of March 26, temperatures dropped to 20ºF not many hours after he sprayed with KDL. That plus two nights at 24º and 26ºF was the end of his apricot crop. Total harvest from 62 apricot trees was 5 Puget Gold apricots; from 30 peach trees, only one peach. The only European and Japanese plum cultivars to have a harvest were two Myrobalan plum trees (half a bucket of fruit).

Southwest

Near Elko, NV **Hal Barkdul**l planted a number of apricot cultivars in his orchard during the past three years. Tlor-Tsiram, a black apricot, has grown 2-3 feet in each of the past three years. Hal added a 7' high Zard on Manchurian to his orchard this past spring. Ground squirrels defoliated much of the leaf structure of both trees. The Tlor-Tsiram bounced back quickly, the Zard not as well. The Robada on Lovell peach, planted in 2012, grew 3-4 feet; Harlayne planted at the same time, only 2 feet. Sugar Pearls is doing well, but Hal said it requires training to maintain a central leader because of its spreading growth habit. (This is also true for my Sugar Pearls trees.) The Precious, Debbie's Gold, Jerseycot, and Afghanistan that Hal grafted and planted in 2011 had a rough time recovering from ground-squirrel damage and grew only a few inches. Hal also planted Mormon, Montrose, and Jimmy Thomas apricot trees this past spring, and they established themselves well. Ground-squirrel defoliation killed his Alice Sharp White, Tomcot, DR-606, Helena, Stark SweetHeart, Hoyt Montrose, and Alfred trees.

Spring 2012 in NE Nevada was dry and cold, with a 24ºF temperature in the middle of bloom effectively killing all the fruit blossoms. Two weeks later, the orchard experienced 30 mph winds with 100F temperatures. Elko received only 4.5 inches of precipitation for the entire water year, half of normal.

The Ranger peach has done well for Hal. Although Belle of Georgia is not considered to be winter-hardy, it has grown well for Hal during its three years (2010-12) in his orchard.

Hal has noted (as have I) that existing soil calcium is not always available to newly planted trees. Although his soil has a mid-range reading of 9.1 milliequivalents for calcium, he has experienced (as have I) serious calcium deficiency in his newly grafted and planted apricot trees, as evidenced by the leaves curling and becoming highly deformed. However, older trees in his orchard do not show those symptoms. Hal believes that apricots may be fairly sensitive to mineral deficiencies and that calcium is used in forming the graft union, making it necessary to supply this macronutrient when it is either lacking or chemically tied up in the soil.

An effective way to deal with this is using a spray for blossom end rot in tomatoes, which is a calcium-related disorder. The product that Hal found locally is called Soil Stimulator. Manufactured by Baicor, LLC in Logan, UT, its chemical analysis is 9-0-0 plus 5% calcium. The dilution rate is 1 oz/gallon of water for monthly or 0.5 oz/gallon of water for twice-monthly (best for tomatoes) applications either to the foliage or soil. It is labeled for use as a starter fertilizer, soil conditioner, for enhancement of root growth, and for blossom end rot. I bought a jug of it while in Elko. Using it once or twice on my tomatoes, I had very little problem with blossom end rot in 2012 in spite of ageing drip lines and a very hot summer.

In Albuquerque, **Patrik Schumann** spoke about some of his UC Davis acquisitions. Two apricots from Pakistan, growing in containers (Khoshenda, Khakas), bore fruit of excellent quality. For trees in the ground, the flavor of Zard was "great", that of Afghanistan and Hopi good, but Chinese (Mormon) and Hunza were insipid.

Martha Davis in Los Alamos, NM furnished me with a detailed report on bloom dates and duration at her location. She said that in 2012, Zard continues to do well for her. Other apricots for which she has high hopes are Canada White Blenheim [I have a healthy graft of it on my Tomcot], Turkish White, and Ultra-Orange. Wilson's Delicious that was topgrafted high up set a good amount of fruit, given the size and age of the graft, and the flavor was good. Martha added that Ultra-Orange behaved similarly though she only got to taste somewhat over-ripe, netted fruit when she returned from a trip. She commented that Orangezhevo Krassny is often used for breeding because it blooms late. It set well, but the fruit was stringy in texture and left a lot to be desired.

Mountain States/Great Plains

Terry Everard (Sundance, WY) lost his Westcot and Tomcot trees over the winter of 2011-12. His apricots began breaking bud April 1, earlier than usual. Debbie's Gold, Pixie Cot, and Scout were the first to break bud, then Sungold and Moongold, and finally Tlor-Tsiran and Jerseycot. There was very little winter desiccation of the flower buds, then abundant flowering on trees over 4 years old. By April 25, there was fruit set on the early varieties, but a 22ºF frost on April 28 caused loss of all

Member Reports -- continued

the flower buds and fruit. (Comment: that same morning the Treasure Valley had widespread frost.) Terry lost all his Nanking cherries and most of his plums and pears but had a good crop of Meteor cherries and a fair-to-good crop on most apple varieties. For the year 2012, NE Wyoming only got 6.7" of rain from April 1 through Oct. 30, or 40% of normal. Even with drip irrigation, drought may have had some affect on his trees in 2012. (From having visited the Everard homestead in October 2007, I know that water is the major limiting factor in how much Terry can grow.)

Matie Belle Lakish, in Crestone (elev. about 8,000 feet, south-central CO, SW flank of the Sangre de Cristo range) experienced warmer and drier weather than usual in 2012 but as of 01/05/13 had some snow on the ground. The Hoyt Montrose and Zard trees that she bought from me this past spring were all alive as of late fall. She commented that the Hoyt, though slow to bud out, grows a lot like her Chinese or Mormon apricot tree, which bloomed profusely and somehow managed to set a few fruits, which she liked, from late blossoms that escaped the frost. The Zard at this point is a smaller tree than the Hoyt Montrose. Matie Belle also has three seedling apricot trees that she is watching and believes one of them may flower in 2013.

AIG member **Robin Hause** (Fort Collins, CO) said that full bloom on her apricots occurred the first week of April. Her Jerseycot and Alfred trees are alive and well, but her Hoyt Montrose that was planted in 2011 with them is now dead. Robin is also growing Carmine Jewel and Crimson Passion dwarf tart cherries and said that even where she is, plum curculio is a problem.

Mike Kelly (Loveland, CO) had no bad frosts and a crop from almost every fruiting plant in his yard, 40 gallons total of apricots, peaches, plums, and grapes. His 2012 bloom dates, year planted, and the crop yields were as follows. March 15, Goldcot, '08, 3 'cots; Mar. 18, Westcot, '09, 20 fruits; Mar. 19, Harcot, '09, 5 gallons of apricots; Mar. 21, Debbie's Gold, '09, 10 fruits; Mar. 22, Early Montgamet (Chinese), '09, 15 'cots; Mar. 23, Harlayne, '07, 15 'cots; Mar. 24, Hargrand, '11, zero fruits; Mar. 24, Harglow, '08, 15 'cots; Mar. 24, Adirondack Gold, '09, zero fruits [note: this has the leaf form and fruit form of a Manchurian plum, not an apricot, even though it tastes like an apricot]; Tomcot, Mar. 24, '11, zero fruits.

Of the trees that Mike bought from my nursery in 2011-12, his Jerseycot, Jimmy Thomas, Morden 604, Suphany, and Zard are surviving; but his Afghanistan died in the winter of 2011-12. Although Harcot has not been very productive for me (in WA State and Idaho), it has done well in SW Michigan, Green Bay WI, and evidently also for Mike although it is also his oldest tree.

In Littleton, CO **Barry Todd** had a great bloom and good fruit set on his apricot trees. A late frost wiped out his crop, but ten miles away his cousin, Dave Corbett, had a wonderful crop of 'cots. Barry also heard of a number of other apricot trees in the Denver area which had crops of fruit in 2012. The Corbett and Hoyt Montrose trees from me that Barry planted in 2012 grew well, as did a Montrose budded in 2011 to Manchurian. Unfortunately, Barry lost many plums, peaches, a few pears, and some apricots in black plastic pots in the winter of 2011-12 thanks to them breaking dormancy prematurely.

In central Utah, **Alan Tripp** had a warm winter coupled with late, severe frosts that killed every apricot blossom in the county, but the trees in his orchard are growing quite well.

In eastern Nebraska, **Justin Martin**'s farm is on a small hill in a valley. Two nights at 27ºF killed almost all the fruitlets, even on his apple and pear trees. Only a few white peaches and European pears brought fruit through the frost. His neighbors higher up had apricots, peaches, and apples; and the local apple crop was "stupendous." Over the past four years, Justin has been pleased with Jerseycot and had a few crops from it, also a few Golden Giant apricots. He lost his Hoyt Montrose trees, has not yet fruited Afghanistan, but has gotten a few Puget Gold apricots from his tree. Justin has observed that white peaches and yellow clingstone peach seedlings perform better in heavier soils than yellow freestone peaches. He has developed considerable expertise with field-grafting walnuts and told me the details of how to do it. I can send info on this topic to any AIG member who is interested in field-grafting walnuts..

Pacific Northwest

Tom Garofalo (Hood River, OR) planted Robada apricot trees in 2010 at two locations: 4 in Hood River, 7 or 8 in Dallesport, both on sandy loam soil. Those in Hood River were small, puny, unfruitful trees that did not respond to fertilizer but have not been killed by bacterial canker. The trees in the somewhat drier conditions of Dallesport (near The Dalles) bore a small crop of nicely colored, tennis-ball sized apricots that the deer ate before they were fully ripe.

Member Reports -- continued

Alaska

Gary Masog reported that 2012 was a very cool, cloudy growing season in Anchorage, with a lot of even early-season apples not ripening. He saw some green Manchurian apricots in September at the late Lawrence Clark's homestead, but they never ripened. During the past ten years, temperatures in Alaska have been lower by 2.5 degrees than the historical average, and there was an Anchorage newspaper article saying that Alaska is heading into a new Ice Age. Gary also reported the Dec. 24 death of **Alice Brewer**, 81, one of the founders of the ***Alaska Pioneer Fruit Growers*** (and a great encouragement to me during my first years as an Alaskan fruit grower) and the Dec. 30 death of **Claire Lammers**, 77, who had a huge collection of apple cultivars at his orchard 10 miles ENE of Fairbanks.

Upper Midwest

In west-central Minnesota, **Frank Forcella** saw no temperatures below -17ºF during the winter of 2011-12, resulting in excellent flower-bud survival. However, early spring was so warm that apricots began to bloom 3 to 4 weeks early. First bloom on Westcot, Morden 604, and Morrgold were March 29, 30, and 31 respectively with full bloom 3-4 days later. First bloom on Brookcot, Bemidji, and Hunza–3687 was April 1; Lel, April 2; Harogem and Harcot, April 3; Jerseycot and Moongold, April 7. Then disaster struck—21ºF on April 10, 22ºF on April 11. Most of the fruits, some 1/4" long, perished from that. However, the many unopened flower buds on the Jerseycot withstood the low temperatures, opened normally, and produced a bountiful crop that began ripening in late June, the earliest that apricots have ever ripened for him in 22 years. (Normally Jerseycot would come ripe for him in mid-July.) Frank's experience is that although Jerseycot grows well, that it rarely produces much fruit because the flower buds seem to kill at -20º to -25ºF. He had plenty of Jerseycots for fresh eating, several jars of jam, and a pound of dried apricots. The fruits were high quality and golf-ball sized.

Harogem, like Jerseycot, brought enough unopened flower buds through the April 10-11 freeze to produce a reasonable crop of fruit, bright reddish-orange in both skin and flesh. The fruits are larger, of higher quality, and later ripening than those of Jerseycot for Frank, and exceptional as dried. He finds Harogem is more winter-hardy than Jerseycot but not as productive.

Frank's Harcot tree, grafted to Western sand cherry, kept in a large pot, and overwintered in the garage, is small but had a nice crop of fruit. (Harcot trees typically winter-kill outdoors in west-central Minnesota.) Frank returned the tree to the garage during the two frosty nights and saved the crop. The two dozen fruits were almost as large as tennis balls, orange red, with a melting texture. He considers Harcot the highest quality of all the apricots he grows. The take-home lesson for Frank is that it pays to have a diverse selection of cultivars in the orchard because some varieties can produce a crop even when others fail.

In southern MN, beekeeper **Lewis Struthers** mentioned that his bees brought new pollen into the hives on March 13, a month earlier than average. Bloom on his apricots was April 5, but the blossoms froze out several days later. However, apples, pears, plums, and cherries were less advanced, and he had a good apple crop. Drought conditions prevailed there from August through December.

Although **John Fuerst** had a 23ºF followed by a 19ºF during the second week of April in SW Minnesota, there was enough protective action from KDL to allow a few apricots to slip through the frost. He harvested one apricot apiece from his DR-606 and Harry Hoch seedling 03-03 (a Goldcot x Harlayne cross), seven fruits from his Precious tree, between 7 and 15 from his Zard, and 20 apiece from his Goldcot and Jerseycot. John had a light European plum crop and a fair pear crop; these fruit trees also were sprayed with KDL but were not as far advanced as the apricots in fruit or blossom development.

The freeze in April destroyed **Dave Griffin**'s apricot crop in central MN as well as his early-blooming plums, cherries, and apples. Drought late in the growing season caused pears and grapes to ripen early and all at the same time; furthermore, there were lots of insect pests. Craig Kampa, in the Twin Cities, had no apricots but a bountiful crop of Luscious and Hardy pears, with late-season drought as in central MN.

Dan Sheild on the south side of Minneapolis was growing cold-hardy apricots on his city lot, but run-off of snow-melting chemicals from his neighbor's driveway killed all of them but Zard, which is growing very well. Dan has successfully budded Robada onto the Zard and has Hoyt Montrose topgrafted to a Superior plum. The graft bore an apricot that is a Hoyt Montrose x Debbie's Gold cross. Dan and his wife, Dani, bought 37 acres near Taylors Falls, MN this spring, naming it Stone Creek Farms. Their goal is to produce pears, plums, and apricots for the Twin Cities market. Dan mentioned that the past three winters in the Twin Cities have been unusually warm and that they have had two consecutive summers with below-average rain.

Member Reports -- continued

Wally Marks named 2012 as the worst year of the 30+ years that he has been growing fruit in Greendale, a SW suburb of Milwaukee. Daily high temperatures from March 11-20 ran from 68º to 80ºF, peaking at 83ºF on the 21st, 84ºF on the 22nd. All of his apricots—Goldcot, Wilson's Delicious, and Harglow—burst into bloom March 22, versus May 1 in 2011 (a late spring in the Upper Midwest as well as Idaho). March 23-24, the weather was cool and rainy, with petal-fall March 26. Very few pollinating insects were noticed, and many apricots grew to 3/8" diameter before all of them dropped. This is unquestionably a pollination issue because this happened well before the April 10-11 frosts. The Wisconsin Apple Growers Association and newspaper articles attributed the statewide disastrous fruit harvest to frozen blossoms, but Wally believes it was really the absence of pollinating insects. His apple trees had 10% of a normal crop, and their quality was low thanks to a bad drought coupled with the hottest summer on record.

Further east, in SW Michigan, nurseryman **Matt Moser** (Grandpa's Orchard, Moser Fruit Tree Sales, Inc.) commented that his best success in chip-budding stone fruits is on smaller-caliper rootstocks. When the rootstock gets 3/4 to 1 inch diameter the process for him seems to be less successful. (My own experience chip-budding Manchurian apricot here bears that out.) Matt mentioned that Michigan peach breeder Paul Friday, of Flamin' Fury fame, often will chip-bud small scaffold limbs on smaller peach trees with his new crosses to get a jump on evaluating them.

Matt reported that the April freeze in Michigan was the worst since 1945 or 1947. Apricots, plums, and some early stone fruits bloomed 5-6 weeks early and set a good crop. Frost nibbled away at the crop during March and April, but about April 27 a massive freeze wiped out most fruit in Michigan. Only a few really highly elevated places had much in the way of fruit, and then it wasn't good quality. In southwest Michigan, the drought that followed the freeze was worse than anywhere else in the State. Although everything in Matt's nursery was under trickle irrigation, the only trees to attain half-decent size were apricots and plums on myrobalan seedling.

Lower Midwest

Evan Persons from the SW suburbs of Chicago rejoined the AIG in 2012. (Evan's father sent out scionwood from Alice Sharp's white apricot tree to John Fuerst and others in the AIG about 10 years ago.) Of the three seedling apricots from Alice's home that grow on Evan's property, the white apricot bore, because of several post-bloom frosts, only a handful of fruit, but it was of high quality, large and sweet. However, its fragile and soft nature might make it difficult to transport to market.

His orange-fruited apricot had smaller than usual fruit and was infected with some kind of black fungus on the skin that dried up the fruit and caused it to drop prematurely. However, his yellow-fruited apricot seedling bore lots of good-quality fruit. This tree has grown more slowly than his other apricot seedlings, perhaps because of living in the shadow of a neighbor's huge, old oak tree. The fruits are smaller and rounder than those from other apricot seedling trees that he has. Evan had Sungold, and it cropped for him with pollination from the Alice Sharp seedlings before borers killed it. Moongold did not bear any fruit in 2012. Illinois suffered a bad drought: the apricot fruits were little affected because the drought was later in the season, but terminal growth on the trees was scant.

His Belle of Georgia peach tree had an exceptional quality crop in spite of the drought, but his North Star cherry tree nearly died because of the repeated frosts.

In a later e-mail, Evan gave some details on Alice Sharp and her apricot seedlings. She had four white apricots that he remembers. The one from which scionwood was distributed was prolific in its production and was her second-favorite seedling. (Alice was in her 90s then, about 2002.) She did not allow Evan's father to take scions from her favorite seedling, but he did dig up a seedling beneath that tree, and that seedling is the white apricot in Evan's yard.

Anthony Segredo (Streamwood, IL) mentioned that in spite of the worst drought in over a hundred years in northern IL, his Jerseycot on Krymsk-1 survived and expanded its trunk although it only grew one inch of new growth. Puget Gold saddle-grafted to Citation grew eight inches. In spite of diligent application of Wilt-Pruf, the leaves on his dwarf Rubinette tree died during the summer heat before fully emerging. The first two weeks of 2013 there were unseasonably warm with only a little snow.

England

Clive Simms had takes on the Helena, Robada, Hoyt Montrose, Jerseycot, and Zard scions that I sent to him, and also takes of locally acquired Alfred and Tomcot scions. He kept all grafts in pots in the greenhouse. The year 2012 began with a prolonged dry spell. Just as trees were beginning to grow and flower in May, they had two exceptionally cold nights (-14ºC, or 10ºF). Then, rain began; and 2012 set a record for annual rainfall in England, with many rivers bursting their banks

and flooding. The amount of sunshine was greatly reduced by the amount of cloudiness. The only fruits that produced a half-decent crop for Clive were black currants, and even they had a strange off-flavor. British meteorologists attributed the rain to a southerly shift in the jet stream that allowed more moisture-laden winds to blow over the Isles.

Scandinavia

In the outskirts of Helsinki, **Tuomas Haltia** did not get any fruits from the 4-5 surviving apricot trees in his garden in 2012. Many cultivars died after a February low of -29ºC (-20ºF). Tuomas believes that winter hardiness is not just a function of extreme cold temperature but also of the heat units accumulated during the previous summer. (The spring of 2011 was normal, with a light frost in early May. The summer of 2011 was not hot, and it was significantly more rainy than normal, with many fruits ripening 1-2 weeks later than average.) His experience suggests that Krymsk 86, a full-vigor rootstock, is more hardy than Krymsk 1. Preliminary indications suggest that of the Russian cultivars originating in Moscow, that Lel and Zeus are the most hardy, but more work is needed. From his potted trees, he found that the quality of fruit is better on Lel than on Zeus; and he currently has more than ten cultivars growing in pots. In the recent past, Tuomas has lost Morden 604 grown on myrobalan and also on Krymsk 1 outdoors; and he thinks that the cultivar may be incompatible with K.1. He hopes to try Morden 604 again on K.86 or the German P. armeniaca rootstock 'Hinduka.'

In southern Sweden, **Ake Truedsson** had 80% success last spring in grafting diverse apricot cultivars onto St. Julian rootstocks that were breaking dormancy. As was true in much of the U.S., warm (up to 20ºC, or 68ºF) temperatures in March caused his trees to break dormancy early. Then, a -7ºC (19.4ºF) frost in April destroyed most of his crop. His total harvest was about 2 kg (4.4 lb), mainly from Hargrand and the Stark Brothers cultivar Early Orange, plus a few from other cultivars. The oldest of Ake's trees were grafted four years ago.

New Members

Maggie Nutter, a rancher in Sweet Grass, MT joined the AIG in July after meeting me at the NAFEX conference in Saskatoon, SK.

Ecological horticulturist **Gary Perrault** of North St. Paul, MN joined the Group in mid-January 2013.

Books Publications

"Zone 4"

Gardening Magazine

While visiting the Idaho Nursery & Landscape Association trade show in late January, I ran into a booth for a magazine called *Zone 4*.

Sitting in the booth were editor **Dan Spurr** and his wife, publisher **Andra Spurr**. They publish the magazine in Bozeman, MT. It contains **articles of interest to people in Montana, Utah, Wyoming, Idaho, and other high-altitude, short season areas** on plants, food, greenhouse, composting, and much else. The Spurrs publish the magazine quarterly; it runs about 75 pages, with and 8-1/2 x 11 layout and is lavishly illustrated in color.

I visited with the Spurrs for a while, and they encouraged me to write an article about cold-hardy apricots for them if I could supply some high resolution digital photos with it. They are also on Facebook and Twitter.

The subscription rate is $24/year. The phone number for subscription service is

(406)-586-8540

www.zone4magazine.com

Members Leaving AIG

Richard Espenscheid, who has been with our group since about 2002, has dropped out owing to the fact that he has had zero success growing apricots in his part of Montana, and we have also lost **Marvin Strand**, another Montanan.

Dave Griffin has also announced that he is leaving the group since he is focusing primarily on apricot breeding. We owe him a debt of gratitude for sharing a lot about the performance of apricot and peach cultivars at his central Minnesota location.

I have been unable to reach **Vance Wilson** of Plymouth, WI and in fact have not heard from him since he joined the group.

The table below lists the apricots in order of harvest in 2012, with the exception of Brookcot (ripens mid-season) and Precious (ripens near the end of the season) "Leaf" refers to number of seasons the tree has grown in the orchard. A 5th leaf tree has been in the orchard five seasons (2008-2012), a 2nd leaf tree, two (2011, 2012).

The total apricot harvest exclusive of Precious and Brookcot, which both had a heavy crop of small apricots, was 695.41 lb.

Bob Purvis Orchard

Apricot Varieties Harvest Record -- 2012

Cultivar Name	Leaf	Peak of Harvest (2012 dates)	Harvest Duration (2012 dates)	Total Harvest (pounds)	Avg. Fruit Weight (oz.)	Avg. Fruit Diam (inches)
Apache	5	12 Jun	7 to 16 Jun	23.47	1.16	1.56
Nicole	2	15 Jun	15 Jun	0.19	M	About 1.60
Jerseycot	3	22 Jun	22 to 28 Jun	4.84	1.13	1.50
Castlebrite	5	25 Jun	25 Jun	3.75	1.55	About 1.70
Goldbar	4	27 Jun	27 Jun to 3 Jul	12.50	2.17	1.89
Robada (6 trees)	5	28 Jun	27 Jun to 3 Jul	397.97	2.38	1.98
Tomcot	4	2 Jul	27 Jun to 3 Jul	67.81	1.43	1.66
Harcot	4	2 Jul	2 Jul	0.38	M	About 1.90
Morden 604	5	5 Jul	2 to 9 Jul	1.72	1.10	1.53
Debbie's Gold	3	5 Jul	2 to 9 Jul	3.06	1.03	1.49
Westcot	5	9 Jul	5 to 9 Jul	5.38	1.03	1.50
Afghanistan	2	6 Jul	5 to 9 Jul	0.44	1.50	1.75
Henderson	2	9 Jul	9 Jul	0.03	0.50	1.13
Florilege	4	9 Jul	9 Jul	0.56	1.50	1.75
Lorna	5	9 Jul	9 to 11 Jul	42.31	2.66	2.08
Sugar Pearls (2 trees)	4	9 Jul	9 to 11 Jul	23.78	1.15	1.56
Hargrand	3	11 Jul	9 to 12 Jul	0.81	2.85	2.16
Helena	5	11 Jul	11 to 13 Jul	33.38	1.30	1.61
Brookcot	5	12 Jul	11 to 13 Jul	M	0.83	1.40
Suphany	2	13 Jul	13 Jul	0.56	0.87	1.43
Golden Giant	3	13 Jul	13 Jul	1.91	1.70	1.67
Harglow	4	13 Jul	13 Jul	5.13	2.08	1.92
Zard	3	13 Jul	13 Jul	0.97	0.75	1.36
Jimmy Thomas	38	15 Jul	13 to 17 Jul	M	M	M
Precious	5	15 Jul	13 to 18 Jul	M	M	M
Harlayne	5	16 Jul	16 Jul	11.88	M	M
Harogem	5	16 Jul	16 Jul	15.88	M	M
Hoyt Montrose	2	24 Jul	24 Jul	0.50	1.33	1.36

"M" = Missing Data – No Information Available
Total apricot harvest, excluding Precious and Brookcot, was 695.41 lb.
Precious and Brookcot each had a heavy crop of small apricots

Indoor Forced Bloom
-- Sungold stems in vase --

The table (left) gives observations I made of peak harvest dates, harvest duration, total fruit weight, average fruit weight, and average fruit diameter in 2012. My purpose in giving this data is to furnish the reader with an idea of when some of the exotic, newer, or less well known apricots ripen relative to established, well-documented cultivars.

I recommend going to the web site of **Grandpa's Orchard (Matt Moser)** to view Matt's data on ripening dates. The web page shown below has their charts on maturity, pollination, and cold chilling hours for apricot, peach, cherry, plum, pear, and apple cultivars. These are available as PDF downloads from the **"Growing Tips"** page of GrandpasOrchard.com

www.grandpasorchard.com

Side-Grafting Apricots and Other Stone Fruits

In April 2012, I went out on a very warm day to bark graft sweet-cherry scions onto a cherry rootstock that had grown into a small tree. I found that in spite of the temperatures, that it was difficult to "lift" the bark off the cambium and insert scions beneath it. In a later conversation with **Dan Whitney**, my grafting mentor, I learned that side-grafting is a much better technique than bark grafts for topgrafting stone fruits—not just apricot, but also cherries, plums, and peaches. This past spring Dan used 10,000 side grafts to topwork 7,000 apricot trees from one older cultivar to three others, and only a few of the grafts failed. A few years ago, he topgrafted nectarine trees in May with side grafts and had a 90% success rate. (I consider topgrafting peach or nectarine in the spring is the ultimate challenge in grafting tree fruits.) Dan said that his own experience attempting to make bark grafts on sweet cherry was similar to mine.

From Dan's experience, side grafting is best done when the understock is between bud swell and full bloom. The technique works best if the understock is between 1 and 2-1/2 inches in diameter, can be done up to 3" diameter with little difficulty but is more or less hopeless if the understock is over 4 inches in diameter. The scions must be fully dormant when the grafting is done. Dan believes the biggest reason stone-fruit grafts fail is because they begin to push buds before a graft union is formed. The key is collecting scionwood when it is at maximum dormancy (January), not allowing it to dry out, and keeping it absolutely dormant and moist in storage at 28º to 30ºF. It is better to graft a bit late than too early, and the danger of severe frosts should be largely past. Dan made some sweet-cherry bark grafts and side grafts early in the growing season and some of them failed after they were exposed to very cold weather because the callus tissue was killed by the cold.

The first step in the process, given that you have dormant scionwood in storage, is to prepare the understock. Dan usually cuts off some of the branches first and then shortens by 1/3 to 1/2 the branch that the side graft will be made onto. Part of the reason for this is that he wants to remove some of the shoot-tip auxins (plant growth regulators) that not only inhibit side-shoots from forming on a fruit tree but also have a tendency to inhibit the graft from sprouting also. Dan said that this fall, he found an apricot side graft that he had made on a rather large tree this past spring. It was alive but had only grown 1/4 inch because of the auxins' inhibitory effects.

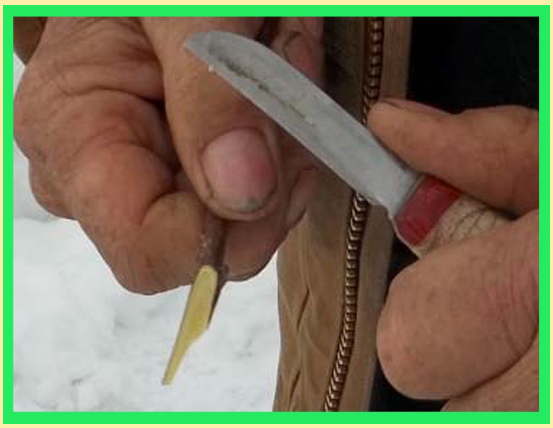
#4 -- Slicing into the understock

To begin, make a slice about 1-1/4 to 1-1/2 inches long into the understock trunk or branch to form a flap and expose the cambium. (photo #4)

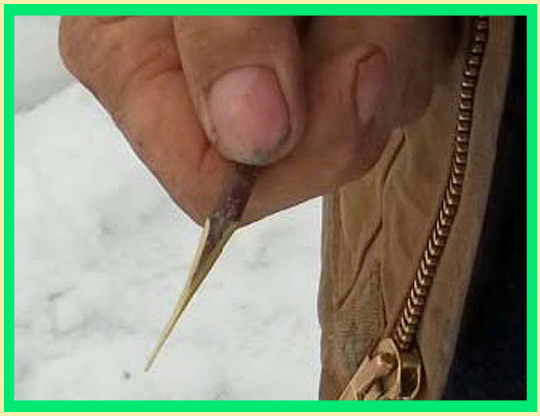
Sharpen the lower end of the scion to form a wedge 1-1/4 to 1-1/2 inches long whose sides taper equally. (photos #1-3)

#1 -- Scion -- 1st cut

Side-Grafting -- continued

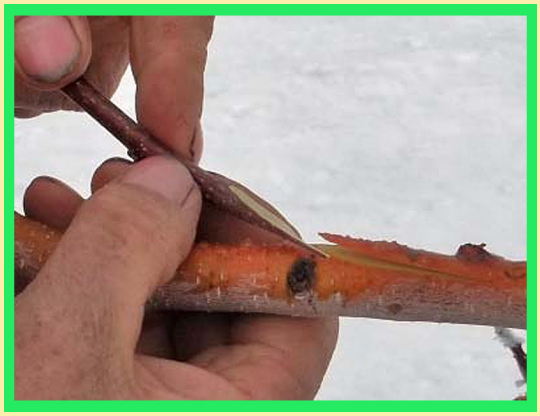


#2 -- Scion - 2nd cut

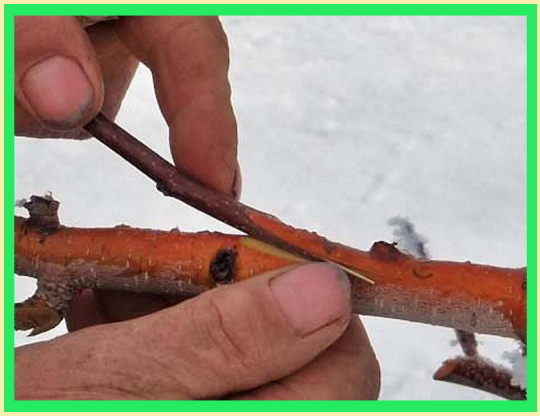


#3 -- Scion - narrow edge view

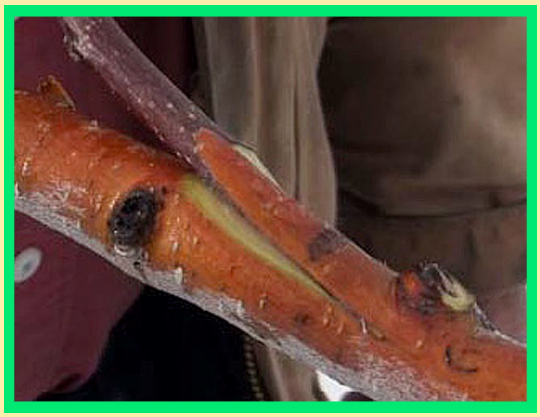
Insert the wedge under the bark flap, matching as much cambium to cambium as possible. (photos #5-7)



#5 -- Scion is ready to insert

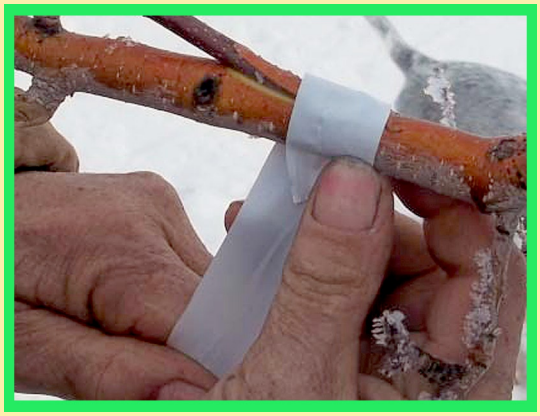


#6 -- Inserting the scion



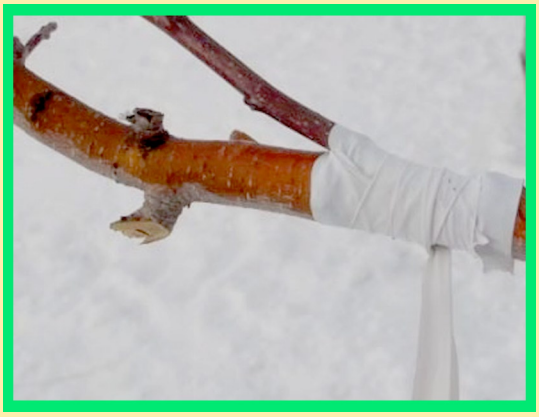
#7 -- Scion wedge in cambial contact

Then, wrap the graft in a spiral manner to tightly bind the flap to the scion and both to the understock. (photos #8-9)



#8 -- Beginning to wrap the graft area

Side-Grafting -- continued



#9 -- Securing the wrapped area

White, stretchy plastic grafting tape works best for this. Seal the finished graft by painting it with Doc Farwell or another latex-based tree paint. **Wilson's Irrigation and Orchard Supply** in Union Gap, WA sells both these materials.

1-509-453-9983

Once the buds on the scion begin to grow leaves, and an inch of shoot growth, and it is clear that the graft has taken, cut off the understock just above the union. This will channel the tree's sap and energy into the scion and force vigorous growth. As with bark grafts, you may want to provide support in the form of a stake to the new growth if it very vigorous, so that it does not break off in the wind.

What are the factors that make this an advantageous method to graft stone fruits? One very important one is that it can be done in cool temperatures when it is impossible to "lift" the bark to make bark grafts. Furthermore, there is no need to make a tongue as is the case with whip-and-tongue grafts. The technique involves relatively little shock to the understock. (By comparison, cleft grafting is a very brutal technique.) The growing parts above the graft bring moisture and nutrients right past the graft. Dan comments that the problem in fruit-tree grafts in general is that apples tend to get too much moisture in their graft union whereas stone fruits seem to have too little. For that reason, the scion tends to dry out. (I recall attempting to bark-graft pluots in March 2009 and having extreme frustration in trying to lift the bark.) This style of graft, with understock buds breaking above it and drawing sap, has the ability to keep the grafting site more moist.

If the worst happens and the graft fails, there is relatively little damage to the understock from the technique. The relatively large amount of cambial contact gained by this technique (as opposed to chip budding, for example) may improve the odds for success and also means that vigorous growth from the scion should result once the graft takes.

AIG Roster

Inluded with the newsletter is a current copy of the roster. Please review it and let me know if any information is outdated or otherwise erroneous so that it can be corrected.

Dues. If you want to continue receiving this Newsletter, please send in your dues before March 1st if you have not already done so. The rate for 2012 membership in the group remains at $7.00. **(Make check payable to Robert Purvis.)**

Please send in a report later this year of how your apricot trees did, when they bloomed, when they ripened, fruit size, quality, and quantity, or other items that are of interest. I'll also print comments on plums or peaches. Thank you to the people who already renewed, and thank you also to all of you who turned in reports on your trees.

---Bob Purvis
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