



Berrien County Horticulture News



Volume 3, Issue 1, April, 2001

Dear Horticultural Producer,

Hello everyone, and welcome to the first issue of the Berrien County Horticulture News, a newsletter geared toward the horticultural producer in Berrien County. As the new Horticulture Agent in Berrien County, I get to name and send out my newsletter. You can expect 3 to 5 issues of this newsletter throughout the year.

A great season is developing all around us. I have been told, that for the first time in several years, our bud development stage is more on a normal (whatever that is) to slightly behind normal schedule. Yes, the weather's climate is being kind to horticultural crop producers, but the economic one is not treating you as well. Lots of issues have combined in almost all of agriculture. The ones that will survive are the ones that have the ability to adapt to change and the wisdom to take all the available knowledge and utilize it. Hopefully, by reading this newsletter, you will be just a bit wiser! Whatever crop you produce, the one thing you can do for yourself that will always help is to produce the best quality product possible.

There are lots of things in this newsletter. From weather data to label changes, from pesticide container recycling to available loans, from asparagus to brambles, there is bound to be something that applies to you. Read on and discover.

I would very much like to be of service to you. Please feel free to call me with your questions. I am also available to come out to your site to help solve a problem or problems you have – contact me by phone, email or the web.

Sincerely,

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enc.

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rapid response is needed. During the early stages of shoot growth, there is a tremendous need for nutrients that in some situations cannot be supplied by the reserves in the plant. A second advantage is that nutrient availability during bloom time is often limited by cold temperatures in the soil, so foliar applications can supply that needed nutrient. Foliar nutrient can also correct a temporary or transient deficiency. This is related to the prior advantage. Even though a soil test says adequate quantities are present, or a leaf test for that matter, does not mean that there cannot be a temporary deficiency in a given bud, leaf or fruit tissue.

Another advantage is that foliar applications may actually be the best way to get nutrients into the plant because of soil properties or a specific timing is needed. Sometimes soil texture and/or pH can create a situation where a given nutrient is rendered unavailable to the plant. Finally, some nutrient combinations are excellent buffers in the spray tank.

Even though there are several advantages, there are a few disadvantages, too. Determining the proper application rate is like playing roulette. You really don't know the amount you should put in the spray tank to get a desired result. Another disadvantage is that some foliar nutrients can cause direct damage to the fruit - usually surface-type phytotoxic responses. Copper on apples is probably the best example of this. Too much copper will "burn" the surface of apple fruits. Matching application amounts to the prevailing weather conditions is difficult. One should really determine a rate based on the drying conditions present. Fast drying conditions lead to little uptake whereas slow drying conditions tends to lead to excessive uptake. Another disadvantage is that nutrient sprays really should be applied in sufficient volumes to have adequate uptake by the foliage during the initial exposure. Get thorough coverage for adequate uptake. Concentrate spraying is not recommended because some of these nutrients are toxic above a certain concentration. Another disadvantage of foliar nutrient applications is that they work only when a deficiency is present. Finally, you might be putting on something you do not need. Especially true with mixtures. Don't just put on a multi-element mixture if you are only trying to correct a single element deficiency.

A foliar nutrient application can be done at almost anytime of the year. However, spring, summer, and fall are the best times. Spring because flowering is very stressful to the plant and very little water

movement through the tree is occurring until the leaves are at full size. Foliar nutrients may help get that flower fertilized when the prevailing weather conditions are not the best. Summer is another good time for foliar nutrient applications. Calcium chloride is probably the best known example. It is an excellent source of calcium to help avoid cork spot and bitter pit in apples. In the fall, just before leaf drop, is another great time to apply some key nutrients. This is because as the day length shortens and cooler night temperatures occur, the plant starts to initiate the processes that lead to dormancy. Part of that process is the movement of some nutrient out of the leaf into the bud and surrounding bark tissue. Nitrogen, boron and zinc applied at this time will help to create stronger buds for next year's crop. Stronger buds will most likely survive cold temperatures better.

Listing all the compounds that can be used in foliar nutrient applications is beyond the scope of this presentation. What follows is a list of nutrients that can be considered for foliar nutrient applications. By no means should this list be considered the only ones, these are just the most common. The sources for this list were *Fertilizing Fruit Crops* by Eric Hanson, MSU Extension Bulletin E-852 and *Orchard Nutrition Management* by Stiles and Reed, Cornell Coop. Ext. Bulletin 219. Possible foliar sprays of nitrogen, potassium, calcium, magnesium, manganese, copper, zinc, boron, and iron can be applied.

Before going out and spraying your blocks with foliar nutrients, here are some precautionary thoughts. Know why you are applying them. Are you trying to improve bud quality or trying to avoid poor quality inside your fruit? Remember that if no deficiency exists, you are probably not getting any benefit from an application. One final precautionary thought, always test any material, mixtures, and/or spray combinations on small areas first. Some could create a phytotoxic response. There is an excellent article in the May 1, 1999, *Good Fruit Grower News* (www.goodfruit.com) entitled "Foliar Nutrients - - What's smart and what's not" that you should read. Some very excellent points are made in that article.

In conclusion, some foliar nutrient applications are quite successful in certain situations. However, there has been very little scientific scrutiny of some foliar nutrient compounds. There is one last thought I would like to leave with you (in the Yogi Berra-type quote style). If you do have a situation where foliar nutrient applications would have been

beneficial and you have not applied them, "None on means none in."



Fluctuating Temperatures Occurred Over the Winter

In addition to all the snow we got this past winter, we also had a few cold snaps as well. There have been some scattered reports of some winter damage to vinifera grapes and raspberries. It appears that some of the damage to the grapes occurred when snow was present because little damage was seen below what was a "snow line". It might be a good idea to scout your vineyards and see if you have any damage. As seen on page 9, in December there were two below zero temperatures that would not normally have been damaging. However, note that there were warmer temperatures less than 7 days before. Other potentially damaging events occurred in January where the same scenario was in place – cold temperatures less than 7 days after warmer temperatures. It is hard to say for sure when the damage was done.

A check of peach buds at the Southwest Michigan Research and Extension Center revealed no real problem with most of the varieties having more than 90% viable buds. So, has the cold temperatures caused you some damage? Most likely not, but it doesn't hurt to get out and check your buds in your orchard to know for sure.



2001 Fruit Spray Guide Update Session

Discussions

Summary By Bill Shane, Mark Longstroth, & Al Gaus

Insecticide Information

Correction: Fruit Spraying Calendar 2001 – Michigan State University Extension Bulletin E-154.

Page 13. Hydrate should be Vydate

Asana XL

Now labeled for use on blueberries, 14 day preharvest interval. Effective against fruitworms, at higher rate against Blueberry Maggot, and somewhat against Japanese Beetles.

Sevin

Now 3 to 7 days preharvest interval.

Not labeled yet

Actara, Calypso, Comply

Carzol

Not labeled after petal fall for apples, pears, peaches.

Lorsban

Use of Lorsban 4E and Lorsban 50W on apples is restricted to pre-bloom applications only. Special local needs label for use of 4E against Climbing Cutworms in grapes. No change in use of Lorsban on peaches against borers. Now is restricted pesticide.

Guthion 50 WP (changes from 2000)

Hand thinning 14 day preharvest interval, hand harvesting 14 day preharvest interval, for the following 48 hr: propping, mowing, irrigating, scouting, summer pruning.

Pyramite 60 WP (BASF)

On apples, pears, with a recent registration for use on peaches, plums, grapes, and post harvest on cherries and apricots. Is excellent against European Red and Rust Mites and fair against White Apple Leafhopper. Not effective against 2-spotted mites, which is the most common mite on peaches.

Agri-Mek 0.15 EC

Labeled for apples, pears, grapes. European Red Mite, 2-spotted mite, Spotted Tentiform Leafminer. Added White Apple Leafhopper, good control of Apple Rust Mites.

Savey

On apples and newly labeled for cherries, peaches, and strawberries. Extended treatment window to 28 days preharvest interval in 2000 for tree fruit. Preharvest interval for strawberries is 3 days. Label was still pending for plums as of late 2000.

Spintor 2 SC

Apple (7 days preharvest interval), and now on peaches (14 days preharvest interval), cherries (7 days preharvest interval). Fair to good on Codling Moth, good to excellent on leafrollers & Spotted Tentiform Leafroller. Fair on Oriental Fruit Moth, good on Western Flower Thrips (peaches/nectarines).

Confirm 2F 23% (Rohm and Haas)

Added caneberries to label, also with bushberries, cranberries, pome. Apples/Pears (20 fl oz) Codling Moth, Obliquebanded Leafroller, Tufted Apple Bud

Moth, other leafrollers, Green Fruit Worm.
Michigan had a section 18 label in 2000 for use against Grape Berry Moth. Aim at egg hatch.

Danitol 2.4 EC

Apple (14 day preharvest interval), pears (14 day preharvest interval), strawberries (2 day preharvest interval), grapes (21 day preharvest interval). Good for 2-spotted and Red Mite, good Obliquebanded Leafroller, excellent on Oriental Fruit Moth, good on Plum Curculio & Tarnished Plant Bug, fair on Spotted Tentiform Leafminer adults.

Intrepid 2F 22.6%

New label apple, pears.
Apple pests (12 to 16 fl oz), Codling Moth, apply before egg hatch. Obliquebanded Leafroller (8 to 16 fl oz), pink to petal fall, peak to early egg hatch summer generation. Oriental Fruit Moth (light infestations before egg hatch). Spotted Tentiform Leafminer early egg hatch.

Esteem IGR 0.86 EC (Valent) preharvest interval 45 d, re-entry interval 12 hrs. Labeled for apple, pear, 2 applications max., 32 fl max./season. Suppresses insect development, slow action, aim at egg laying/hatch. **Not** labeled for peach, plum, apricots, cherries in 2001.

Apple pests (13 to 16 fl oz) codling moth, San Jose Scale, Spotted Tentiform Leafminer, Rosy Aphids (if applied at delayed dormant). Green Aphids (apply before aphid develop colonies).

Suppression: Obliquebanded Leafroller.

Pear: Pear Psylla 13 to 16 fl oz delayed dormant to pink, San Jose Scale at crawler stage with oil, 1st generation Codling Moth, plus 1 to 2% oil at biofix + 100 DD 500 F base.

Avaunt 30 DG (DuPont) preharvest interval 28, re-entry interval 12 hrs. Labeled in 2001 for apples & pears 5 to 6 oz/acre. Apple pests labeled: Plum Curculio, Oriental Fruit Moth, Red-banded Leafroller, Tufted Apple Bud Moth, White Apple Leafhopper, Potato Leafhopper, Tarnished Plant Bug, Apple Maggot. Pear pests labeled: Codling Moth, Oriental Fruit Moth, Red-banded Leafroller. Max 24 oz/acre & 4 applications.

Fungicide information

Correction: Fruit Spraying Calendar 2001 – Michigan State University Extension Bulletin E-154.

Nova 40 W

Should read 2.5 – 5 oz, not lb for the following: Strawberry section page 87,88,89,90,91; Brambles pages 93, 94, 95.

Elevate

Labeled for Botrytis on strawberries and grapes.

Strobilurin Fungicides (e.g. Abound, Flint, Sovran) Back action of these fungicides is probably closer to 48 hrs rather than the 90 or more hours previously advertised. Unlike Sterol Biosynthesis Inhibitor fungicides (like Nova), strobilurin fungicides do not have the eradivative back action when two sprays are applied back to back (after infection, but before symptom expression).

Correction: Grapes, page 80, for Downy Mildew efficiency should be 12e and 17g, NOT 12g and 17e.



Apple Market Loss Assistance Payment (AMLAP) Program

The Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2001, provides the nation's apple growers with economic assistance for market losses. This is called the Apple Market Loss Assistance Payment (AMLAP) Program. AMLAP is available to producers with apple operations if the apple operation produced and harvested apples during the 1998 or 1999 crop year. The signup period for AMLAP ends on April 13, 2001. Please contact Marcia Collins at the Berrien County FSA Office, 3334 Edgewood Rd, Berrien Springs, MI 49103, (616) 471-9055.

Under the 2001 Act, appropriation of up to \$100 million of funds will be made available for direct payment to apple producers. Since a set amount of money is available, a national payment rate will be determined after the end of the signup period. Payments under the AMLAP program are made to producers on apple operations. Only 1 application per apple operation is required. To be eligible to receive payment, producers on an apple operation must have: 1) produced and harvested apples in the United States anytime during the 1998 and/or 1999 crop year; 2) not have been compensated for the same market loss by any other Federal programs, except an indemnity provider under a policy or plan or insurance offered under the Federal Crop Insurance Act and also excluded for the 1998 and 1999 crop years are 1 of the following: an apple farm loan, crop disaster payment, or any other program not specifically for the market loss of apples; and 3) apply for payment during the application period. Again, the deadline for applications is April 13, 2001.



Emergency Loans for Crop Losses

Emergency loans are available to Berrien and Cass County producers through the Farm Service Agency County Office to eligible farmers for losses caused by excessive rainfall, flash flooding, hail, high winds and fire blight disease that occurred this spring and declared a disaster area.

Emergency loans are also available for damages and losses caused by abnormally warm winter temperatures followed by frost and freezing temperatures that occurred from February 22 through April 30, 2000.

To qualify, an applicant must be an established farm operator who was operating and managing a farm at the time of the disaster, be a citizen of the United States or a legal resident alien, have repayment ability, provide evidence of having suffered a qualifying loss of at least 30% in any single crop which constitutes an essential part of the total farming operation, and be unable to obtain suitable credit from a lender other than FSA when offering all assets owned as collateral to such lender. Terms of the loan to recover from production losses will normally be scheduled for up to 7 years at 3.75% interest per year. Under conditions of special need, terms of not more than 20 years may be authorized. **The final date to apply is April 9, 2001.**

Emergency loans are available for losses caused by excessive rainfall, flash flooding, hail, and high winds that occurred from April 17, 2000, through the end of the crop year. **The final date to apply for these loans is July 2, 2001.**

Please contact Neil Kreitner at the Berrien County Farm Service Agency office, 3334 Edgewood Drive, Berrien Springs, MI 49103, (616) 471-9055.

Emergency Loans for Physical and Animal Losses

Emergency loans are available to Berrien and Cass County producers through the Farm Service Agency County office to eligible farmers for damage to structures and loss of livestock caused by snow that occurred December 11 through December 31, 2000. **The final date to apply is September 10, 2001.**

Please contact Neil Kreitner at the Berrien County Farm Service Agency office, 3334 Edgewood Drive, Berrien Springs, MI 49103, (616) 471-9055.

Special Apple Loan Program

USDA will make low interest loans available to apple farmers who are suffering hardships due to low prices for their fruit. To qualify for the Special Apple Loan Program, applicants must have produced apples for market in either 1999 or 2000 on a minimum of 10 acres. Eligible applicants may obtain loans up to \$300 per acre of apple trees in production in 1999 or 2000, for a maximum of \$500,000. Loan funds may be used to:

- ◆ Pay costs associated with reorganizing a farm to improve profitability.
- ◆ Pay annual operating expenses.
- ◆ Purchase farm equipment or fixtures.
- ◆ Acquire, enlarge or lease a farm.
- ◆ Make capital improvements to a farm.
- ◆ Purchase stock in a cooperative for credit, production, processing, or marketing purposes.
- ◆ Pay closing costs on debt re-financing.

Please contact Neil Kreitner at the Berrien County Farm Service Agency office, 3334 Edgewood Drive, Berrien Springs, MI 49103, (616) 471-9055.

Purple Spot on Asparagus

Ron Goldy, District Vegetable Agent

Asparagus Purple Spot (*Stemphylium vesicarium*) is an increasingly important disease in Southwest Michigan. Until a few years ago few southwest growers knew about it, and even fewer found it in their plantings. Increase in Purple Spot has coincided with increase in no-till production. Many growers would shallow till asparagus in the late fall or early spring. This would chop the fern and incorporate it into the soil where it quickly broke down. Since Purple Spot overwinters on the fern, working it into the soil reduced spring inoculum levels. The shift away from tilling has provided an opportunity for the disease to progress.

Purple Spot requires the right circumstances to develop into an economic problem. Wet, windy weather favors disease growth and spread. Moisture (rain or dew) releases the overwintering spores which travel by rain splash or wind. Wind also aids infection by causing sandblasting wounds, which provide easy entry points for spores. An infection starts out as a purple spot, often rimmed in red. As the spot enlarges it acquires a tan center. Spotting is often worse on the windward side of the spears, and can be so bad as to cause rejection.

