

Newsletter Extension



Fruit ICM News

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June 9: Plasticulture Strawberry, Blueberry, Blackberry, Raspberry Twilight Meeting; OSU South Centers, 1864 Shyville Road, Piketon, Ohio 45661. Field tours are from 5:00-7:00 p.m.; supper will be served from 7:00-8:00. Contact Brad Bergefurd, at 740-289-3727, 1-800-297-2072 (in Ohio only). Email bergefurd.1@osu.edu. Web site: www.southcenters.osu.edu.

June 25: Ohio Fruit Growers Society Summer Tour, Glen Hill Orchard, 17156 Glen Road, Mt Vernon, OH. More details to follow later.

New Developments in Small Fruit Fungicides

Source: Mike Ellis, OSU Plant Pathologist

Switch 62.5% WDC fungicide was recently registered for use on several berry crops and caneberries. Berry crops include blueberries, currants, gooseberries, elderberries, and huckleberries, as well as other cultivars and hybrids of these crops. Caneberries include blackberries and raspberries and/or cultivars and/or hybrids of these crops. On blueberry it is registered for control of Mummy Berry, Anthracnose (Colletotrichum spp.), Alternaria fruit rot, and Phomopsis twig blight. On brambles it is registered for control of Botrytis fruit rot. Switch is an excellent material for control of Botrytis fruit rot (gray mold). It is also registered for control of Botrytis fruit rot on strawberry, and has been reported to provide some level of control for anthracnose fruit rot on strawberry.

The following information was taken from the label:

Rate: 11 to 14 oz per acre

Application timing: Make the first application during early bloom. A second application should be made 7 to 10 days later. Additional applications can be made at 7-10 day intervals if conditions remain favorable for disease development. Make no more than two (2) sequential applications before using another registered fungicide. Switch 62.5WG may be applied in an alternating or blocking program.

Notes: Pre-harvest interval is 0 days. Do not apply more than 56 ounces of product per acre per year.

Rotational Crop Restrictions: Do not plant any other crop for a period of 12 months unless Switch 62.5WG is registered for that use.

Please note that for purposes of fungicide resistance management, no more than two sequential applications may be made before using another registered fungicide with different chemistry. For Botrytis control on brambles, Switch can be used in alternating programs with Elevate, Rovral, or Captan. No more than four applications of Switch may be made per growing season.

Captan 80 WDG: Several changes and additions have occurred on the Captan 80 WDG label. These changes have not been made on any other formulations of Captan to date (Captan 80W, Captan 50W, and Captec 4L). However, these changes are in the registration process and should be made soon on other formulations.

Significant changes:

- The Re-entry Interval (REI) has been reduced from 4 days to 24 hours on strawberries, apples, apricots, cherries, nectarines, plums/fresh prunes, and peaches. This is a significant change for growers wishing to use Captan, but having problems with the 4 day REI. The REI for blueberries, grapes, raspberries, blackberries, and dewberries is 72 hours.
- Blackberries, raspberries and dewberries have been added to the label. Previously, Ohio had a 24-C registration for the use of Captan 50W and Captan 80W. The 24-C registration is no longer needed for use of the Captan 80 WDG formulation.
- The following is from the Captan 80 WDG label:

Blackberries, raspberries, dewberries:

Anthracnose, Botrytis, Spur blight: Apply 2½ pounds Captan 80 WDG per acre when blossoms are in bud (young canes are 8-10 inches long). Make a second application two weeks later. Apply a fall spray after old canes are removed.

Fruit rot: Apply 2½ pounds of Captan 80 WDG per acre at early bloom (5-10% bloom) and again at full bloom. Additional applications may be made at 10-14 day intervals as needed. Apply Captan 80 WDG as indicated above in 45-100 gallons of water per acre per season. Do not apply within 3 days of harvest. The REI is 72 hours.

Note: During early bloom and preharvest sprays, Captan is an excellent material to use in combination (tank mix) with Switch, Elevate, or Rovral.

Tree Fruit Disease Notes

Source: Paul Pecknold, Purdue Plant Pathologist, Facts for Fancy Fruit 03-02 for April 14, 2003

Tight cluster to pink is a time for maximum disease control efforts. During this period primary scab spores often reach their peak; powdery mildew infection is occurring on new growth; cedar apple rust is discharging spores with each rain; and fire blight is building, ready to be carried to opening apple and pear blossoms. It's not a pretty picture!

Apple scab: The potential for severe scab infection is *always* high. The amount of scab is directly dependent on the frequency *and duration* of spring rainfall. If we have a wet April, scab pressure will be high; if it turns dry, scab pressure will be low. Spray accordingly.

Rust: The pink stage of apple growth generally coincides with the time rust spores begin to infect apple foliage and fruit. If rust is a chronic problem, consider the use of a sterol-inhibiting fungicide such as Nova or Rubigan.

Powdery mildew: If mildew has been a chronic problem in certain blocks (Jonathan, Rome, Ida Red) the above mentioned sterol-inhibiting fungicides are also excellent in helping to control mildew.

Fire Blight: Be concerned . . . see warning on fire blight:

Fire Blight Warning: Early, warm temperatures and the increased occurrence of fire blight over the past two years have increased the potential for this to be a bad fire blight year. If prebloom & bloom coincide with warm temperatures (daily average temperatures above 65F) the possibility of blossom blight infection being triggered by a wetting event (rainfall or heavy dews) becomes very real. The best prevention for fire blight is the application of streptomycin during bloom.

Apply streptomycin just as blossoms begin opening and repeat every 3-4 days if weather favorable for blossom blight infection persists. The "MARYBLYT" computer software program will help you in determining when and if an infection event occurred as well as predict the risk for future infection periods.

Planting to Avoid Fire blight: When establishing new orchard blocks, consider varietal susceptibility to fire blight. Blight control is easier if plantings of susceptible trees can be isolated. Avoid interplanting susceptible apple varieties (Gala, Fuji, Ida Red, Jonathan, Lodi, Rome, etc.) with pears or in fields adjacent to pear plantings. In mixed variety plantings, set varieties susceptible to blight in solid rows for ease of spraying with blight control chemicals.

Also, most of the more severe fire blight problems have occurred in orchards planted on poor sites. These sites can be characterized as having heavy, poorly drained, and/or highly acid soils. Planting trees on poor soil invites fire blight damage and poor fruit production.

Apple Scab: The most important time of year for scab control is from green tip to petal fall. If you don't control scab during this period, it's an uphill struggle the remainder of the season. Be sure sprayers are properly calibrated; thoroughly read the label of all pesticides you will be applying; and use sufficient water to provide good coverage. Choose calm, good drying conditions for spraying (good luck on this suggestion); prune trees so they have an open canopy allowing for good spray penetration; and maintain a tight schedule if wet weather persists during the primary scab period.

Brown Rot Of Stone Fruits: Management of brown rot began last year after harvest with the removal of all fruit, mummies, and blighted twigs. It continues this year at pink with early season fungicide sprays. We fortunately have an abundance of fungicides for use in control of brown rot. See the *2003 Ohio Commercial Tree Fruit Spray Guide* for a complete listing of suggested fungicides: http://www.extension.iastate.edu/pubs/PM1282/CTFSPBODY.pdf.

Web Resource for Fruit Diseases: I just checked out the ascospore maturity rating for apple scab in New York this past week by going online at: http://www.nysaes.cornell.edu/pp/extension/tfabp/ Once at this website, you'll find a number of excellent links to disease fact sheets, extension presentations, and other newsletters. I highly recommend you take a look at this site; it's an excellent reference for both tree and small fruit disease information.

Mummy Berry Update for Blueberry Growers

Source: Annemiek Schilder, MSUE Plant Pathology, Fruit CAT Vol. 18, No. 2, April 15, 2003

This is the time of year to start looking for mummy berry mushrooms in blueberry fields. See http://www.msue.msu.edu/ipm/CAT03 frt/F04-15-03mummytrump.htm. Germinated mummies look like tiny black pumpkins with brown finger-like projections (stipes). Depending on how wet the site is, only 10 to 20 percent of mummies actually germinate in any one year. There can be anywhere from one to six or seven stipes on a mummy. The stipes have a hole in the tip that develops into a small mushroom cup, 1/16 to 1/4 inch in diameter.

The mushrooms start shooting spores when the cup is about 1/8 inch in diameter. The spores all get shot out at once when the mushrooms are disturbed or the air pressure changes, appearing like a little wisp of smoke. Over a million spores can be released per day by a single mushroom. These spores are picked up by the wind and carried to susceptible green tissue. Prolonged cool, wet weather is conducive to infection. At the optimum temperature (57 ° F) only 4 hours of leaf wetness are required for infection.

The first shoot strikes appear about two weeks later, depending on the temperature. Under humid conditions, gray spore masses develop on the infected shoots. These spores (conidia) then get carried to the flowers by bees, wind, and rain, which then leads to the infection and mummification of the fruit.

In lowbush blueberries, it has been shown that frost (28 to 30° F) can predispose the shoots to infection for up to fourdays after the frost event. This hypothesis was tested in small plot trial in a highbush blueberry (Jersey) field in Michigan in 2002 by adapting the spray schedule to incorporate Indar sprays immediately after a frost event (if the previous spray had been applied at least five days earlier). For comparison, Indar was also applied on a 7 to 10 day schedule. Applying Indar soon after frost significantly improved disease control over the 7-10 day schedule, which seems to indicate that frost is also a predisposing factor in highbush blueberries. In 2003, we will be repeating the same experiment and will also directly test blueberry shoots for increased susceptibility to shoot strike infection after a frost.

Treatment, Rate/A	Application Timing ^z	Number of	Number of shoot strikes per bush		Number of mummified berries per bush	
Untreated		62.8	a ^y	232.8	a	
Indar 75WSP 2 oz	3, 5, 7	37.9	b	100.0	b	

Indar 75WSP 2 oz	1, 3, 4, 5, 7	35.4	b	92.5	b
Indar 75WSP 2 oz	1, 2, 4, 5, 6	20.9	c	76.8	b
(frost-guided schedule) X					

^zSpray dates: 1 = 18 Apr (early green tip), 2 = 23 Apr (late green tip), 3 = 26 Apr (late green tip), 4 = 4 May (pink bud), 5 = 15 May (pink bud), 6 = 22 May (very early bloom), 7 = 28 May (full bloom).

^yColumn means followed by the same letter are not significantly different according to Fisher's Protected LSD test (P<0.05).

^xDays with morning temperatures of 32°F or below: 23, 26, 27 April, and 1, 4, 19, 21, and 26 May.

Preemergent Herbicide Options for Michigan Blueberries

Source: Eric Hanson, MSUE Horticulture, Fruit CAT Vol. 18, No. 2, April 15, 2003

The next two weeks will be excellent timing for applying preemergent herbicides to blueberries. The herbicide choices are described in detail in Extension Bulletin E-154: http://www.msue.msu.edu/epubs/pestpubs/E154/21-Blueberries.pdf.

Preemergent herbicides are soil-applied chemicals that kill germinating weed seeds or young seedlings. Many materials applied at high rates also kill established weeds. Properly chosen and applied preemergent herbicides will provide effective weed control through most of the growing season. Here are several considerations in using these materials effectively.

Princep 90WG (simazine), Karmex 80DF (diuron), Sinbar 80W (terbacil), Solicam 80DF (norflurazon):

These are the workhorse preemergent herbicides in established blueberries. They are moderately priced, reasonably safe on blueberries, and control many germinating annual weeds for one to three months. Princep and Karmex tend to be stronger materials on broadleaf weeds, whereas Sinbar and Solicam are stronger on grasses. Use these only on established plants that have been in the ground for two years or more. Use rates per acre are 2.2 to 4.4 lb Princep 90 WG, 2 to 4 lb Karmex 80DF, 1 to 2 lb Sinbar 80W, and 2.5 to 5 lb Solicam 80DF. These rates are for an acre of treated surface area, so if you only treat a strip beneath the plant row, you will use less per acre of blueberries. To prevent injury to blueberries, use the lower rates on smaller plants or on sandy soils low in organic matter. This is particularly true of Sinbar.

Other preemergent herbicides: Other preemergent herbicides labeled for blueberries are Casoron, Devrinol, Kerb, Surflan, and Velpar. The utility of Kerb, Casoron, and Velpar in blueberries is limited by either cost (Casoron, Kerb) or crop safety (Velpar). Devrinol and Surflan are primarily grass materials that are very safe on blueberries (can be used on new plants), but have no post-emergent activity and must be applied before weeds germinate.

Herbicide resistant weeds: Continued use of herbicides from the same chemical families (see accompanying table) can result in weeds resistant to all herbicides in that family. Many weed species have developed resistance to the triazine family, which includes the blueberry herbicides Princep and Velpar. Triazine-resistant weeds may also be more tolerant of herbicides from other chemical families that share the same mode of action. For example, Princep, Karmex, and Sinbar all affect weeds through the same mechanism; they kill weeds by inhibiting photosynthesis.

We found triazine-resistant marestail and ladysthumb (a smartweed) on Michigan blueberry farms during 2001. If you suspect that triazine resistant weeds are present on your farm, try switching to herbicides that have a different mode of action. Solicam and Surflan offer different modes of action and would be good choices to rotate with the photosynthesis inhibitors to control resistant types or to avoid the development of resistant populations.

Specific weed problems: An increasing problem in blueberries is late-season grasses such as fall panicum and crabgrass as well as broadleaf species such as marestail and redroot pigweed. These annuals often become troublesome when the early spring-applied herbicides begin losing their effectiveness in July. If grasses are the primary problem, Surflan may be useful because it is a strong grass herbicide (as long as it is applied before weeds germinate) that has a long residual life in the soil. Surflan may work well in combination with Princep or Karmex to control a wider range of species.

We have also found that delaying preemergent herbicide applications until mid-May and adding Roundup to the spray to kill emerged weeds provided 30 to 50 percent greater late season control compared to the same preemergent herbicide applied three weeks earlier without Roundup. However, Roundup needs to be used with caution. Roundup is absorbed through the green bark of young canes and branches. If your nozzles are not aligned to keep the spray off the base of young canes, treated canes will stop growing and often die during the following year. Although some cane loss can be tolerated, repeated treatments can eventually limit cane numbers and reduce yields. Roundup can be used most safely in old plantings where the bushes have tall crowns and most of the new canes originate above the ground where they are less likely to be treated with the spray.

Marestail is a troublesome winter annual that can germinate during the winter and early spring and develops small flat rosettes visible in March around last year's seed stalks. Sinbar is usually the most effective springtime treatment, followed by Karmex. Princep is weak on marestail. The little seedlings are even tolerant to spring applications of Roundup.

Wild buckwheat is an annual vine that looks much like field bindweed. We have found that standard rates of Princep, Karmex, and especially Sinbar applied in April control this weed. Solicam is weak on it.

Families and modes of action of blueberry herbicides

Herbicide	Chemical Family	Mode of action
Casoron	Benzonitrile	Inhibit cell division
Surflan	Dinitroaniline	Inhibit active growth processes
Princep	Triazine	Hill reaction inhibitor (photosynthesis)
Velpar	Triazine	Hill reaction inhibitor (photosynthesis)
Karmex	Urea	Hill reaction inhibitor (photosynthesis)
Sinbar	Uracil	Hill reaction inhibitor (photosynthesis)
Kerb	Benzamide	Inhibit cell wall synthesis
Solicam	Pyridazinone	Inhibit carotenoid synthesis

Insects of Mass Destruction

Source: Art Agnello, Entomology, Geneva, Scaffolds Fruit Journal, Volume 12, No. 5, April 14, 2003

Temperatures that are downright balmy compared with what we saw only a few days ago are forecast for this week, and it doesn't take too long for the insects and mites peacefully snoozing in the environs to rise to the occasion with those things they do best -- fly, mate, and infest. Not all of this will take place at once, probably, but just to keep you mentally prepared for all the potential ambushes, here's a brief checklist of some prebloom arthropod concerns to consider before the season gets away from you.

Mites: Oil applications should go on before we reach pink or white bud in apples and pears, respectively, and as there's not much freezing weather in the extended forecast, any calm period of sufficient duration would be a suitable spray window. Start with 1.5 - 2.0% at first, and reduce to 1.0 - 1.5% as the trees reach tight/green cluster. In apples, Savey and Apollo can be delayed until pink, and if everything else runs away with your time and a miticide application before bloom is impossible, consider Agri-Mek at petal fall in problem blocks. Besides saving some time during the hectic prebloom period, this is also an ideal rotation material for purposes of resistance management.

Rosy Apple Aphid: In particularly susceptible varieties (Cortland, Ida Red, Golden Delicious, R.I. Greening), a material such as Lorsban or Supracide can provide effective prevention through tight cluster, and will pick up any San Jose scale at the same time. Actara is also a good prebloom fit for rosy apple aphid and other pests besides, including leafminers and early plum curculio.

San Jose Scale: Besides the Lorsban and Supracide noted above, delayed dormant oil applications will do a good job of reducing scale populations. If you're not treating for rosies but are concerned that SJS might be increasing in some blocks, Esteem is a new insect growth regulator with good activity on scale. The label calls for it to be mixed with oil, so if you're applying oil for mites anyway, this might be a tactic to try in severe cases.

Dogwood Borer/American Plum Borer: A coarse spray of Lorsban directed at trunk burr knots between half-inch green and petal fall is effective against both species that can be a problem in dwarf plantings.

Pear Midge: The first adults generally appear when Bartletts and Clapps are in the swollen bud to tight cluster bud stage, but no successful egg-laying occurs until the flower buds are a little more developed. In pear blocks with a history of midge infestation, concentrate on those portions of the orchard most protected from the wind by trees, high ground, or buildings, as the midges tend to be most numerous in these spots. Organophosphates like azinphos-methyl are the most effective materials. Two sprays are recommended, one between late bud burst and first separation of the sepals, and another 7 days later (or at white bud, whichever comes first).

Pear Psylla: If you're just starting on your oil sprays, one application at 2% or two at 1% until white bud should provide adequate protection against egg deposition until an insecticide spray might be elected. Esteem at white bud or after petal fall has shown good activity in suppressing psylla numbers. Agri-Mek used shortly after petal fall has given good control if applied correctly (well-timed, adequate coverage, combined with an oil adjuvant), and split applications of Pryamite or Provado, also starting soon after petal fall, will keep nymph numbers down through the early summer.

Oriental Fruit Moth: The first adults could start flying during the next two weeks, depending on how long the warm stretch lasts, but we don't necessarily recommend pheromone disruption against this brood in peaches or apples, as your plum curculio sprays will serve double duty against OFM as well. However, be prepared to start these at petal fall in both crops, as shuck split will be too late to get the first egg-laying moths in peaches.

Initiative is a Free Resource

Source: John Wargowsky, Executive Director - Mid American Ag and Hort Services, Inc.

The primary objective of the Ohio Specialty Crop Food Safety Initiative is to increase the marketability and safety of the produce grown by Ohio fruit and vegetable growers. The effort has already reached over 200 fruit and vegetable growers and over 20 extension educators/crop consultants through educational seminars and workshops in Ohio. More growers are being reached through articles in trade publications and this spring, summer, and fall will commence the on-farm component of the initiative.

The key educational content of the initiative is good agricultural practices for fresh fruits and vegetables that are designed to minimize microbial contamination on the farm. These practices are based on guidelines published by the U.S. Department of Health and Human Services and the Food and Drug Administration in a *Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables*. Links to both can be found at http://www.midamservices.org by clicking on projects.

Mary Donnell, Extension Agent with the Ohio State University Agricultural Business Enhancement Center, is the education coordinator for the initiative. Mary Donnell will work with Francisco Espinoza of the Ohio State University Ag and Hort Labor Education Program to conduct Spanish speaking worker training primarily in the area of worker hygiene and sanitation.

Shari Plimpton with the Center for Innovative Food Technology is the food safety educator for the initiative. Shari has presented at the Muck Crop School, Ohio Fruit and Vegetable Growers Congress, Fruit Growers Marketing Association Information Meeting, Berry School, and Ohio Fruit and Vegetable Food Safety Workshop. Shari is also working with fruit and vegetable growers on their farms to assist in identifying and implementing good agricultural practices.

These consultations are free of charge to the grower and can range from a visit of a couple hours to a full consultation that prepares a grower for a third party food safety audit. During consultations, Shari will review pre-plant, production, harvest, and post harvest handling practices. Growers needing to develop a food safety plan for purposes of a third party audit can also receive this assistance.

This initiative is financed in part or totally through a grant from the Ohio Department of Agriculture, the State of Ohio, and the United States Department of Agriculture under the provisions of the Specialty Crop Grant. Mid American Ag and Hort Services is responsible for administration of the grant.

For more information on the Ohio Specialty Crop Food Safety Initiative, contact John Wargowsky, 614-246-8286 or labor@ofbf.org, or Mary Donnell, 419-354-6916 or donnell.8@osu.edu or visit http://www.midamservices.org and click on projects.

Washington Apple Commission Folds

Source: http://www.fruitgrowersnews.com

The Washington Apple Commission has decided to fold, following its legal defeat over the constitutionality of its marketing and promotion program, according to a recent release. The commission issued a press release on April 10, saying its board had decided to wind down operations immediately. The board's decision meant bad news immediately for the commission's 33 employees who were dismissed. The commission also canceled the contracts of 15 overseas representatives. Approximately 15 employees were reportedly going to be kept on to wrap up business. There continues to be speculation on how the legal defeat will affect the apple industry.

In its release, the commission said was going to develop a plan to protect its intellectual property. The commission will also reportedly continue to fund commitments to the Northwest Horticultural Council, the Northwest Fruit Exporters, and the Washington State Horticultural Association through August 31. That funding will be prorated through July 2004. The U.S. Apple Association would be fully funded through August 31 and funded at 25% from September 1 through July 2004.

The commission ceased collecting mandatory assessments on March 31, the day of the judge's ruling. The release did not report what commission assets would go toward repayment of assessments to growers since the lawsuit was filed. The commission will pay for no more marketing activities.

Commercial Tree Fruit Spray Guide Correction

An error has been discovered on page 7 of the 2003 Commercial Tree Fruit Spray Guide. Data in the table was shifted out of line. You can download a corrected page in the pdf format for insertion in your spray guide: http://ipm.osu.edu/fruit/page7.pdf.

Degree Day Accumulations for Ohio Sites April 16, 2003

Location	Degree Day Accumulations Base 43 F	
	Actual	Normal
Akron-Canton	237	168
Cincinnati	393	314
Cleveland	190	159
Columbus	355	222
Dayton	332	222
Kingsville Grape Branch	133	124
Mansfield	217	162
Norwalk	181	142
Piketon	406	335
Toledo	176	130
Wooster	276	152
Youngstown	203	145

Pest Phenology

Coming Event	Degree Day Accum. Base 43 F
Rosy Apple aphid nymphs present - 1 st egg hatch	91 - 291
Pear psylla 1 st egg hatch - nymphs present	111 - 402
Green apple aphids present	127 - 297
Oriental fruit moth 1 st adult catch	129 - 587
Lesser appleworm 1 st flight	135 - 651
Apple grain aphids present	137 - 496
Spotted tentiform leafminer - 1 st oviposition	141 - 319

Thanks to Scaffold Fruit Journal (Art Agnello)

Fruit Observations & Trap Reports

Insect Key

AM: apple maggot CM: codling moth

ESBM: eye-spotted budmoth
LAW: lesser apple worm
LPTB: lesser peachtree borer
OBLR: obliquebanded leafroller
OFM: oriental fruit moth

PTB: peachtree borer RBLR: redbanded leafroller SJS: San Jose scale

STLM: spotted tentiform leafminer TABM: tufted apple budmoth VLR: variegated leafroller

Site: Waterman Lab, Columbus

Dr. Celeste Welty, OSU Extension Entomologist

Apple: 4/11/03 to 4/16/03

RBLR: 13 (down from 15) STLM: 166 (up from 129)

Peach: 4/11 to 4/16/03

OFM: 0 (same as last week)

Site: Medina, Wayne & Holmes Counties

Ron Becker, IPM Program Assistant

Apple: 4/8 to 4/15/03 (pre-pink)

STLM: Holmes = 640 (up from400) STLM: Medina = 75 (first report) STLM: Wayne = 920 (up from 0) RBLR: Holmes = 27 (first report) RBLM: Medina = 6 (first report) RBLM: Wayne = 80 (first report)

Sweet cherry, plum, and peach showing bloom.

Site: East District: Erie County

Source: Ted Gastier, Huron County Ag. Agent

Apple: 4/9 to 4/16/03 (1/2" green to tight cluster)

STLM: 75 (up from 0) OFM: 1 (up from 0)

Peach: 4/9 to 4/16/03 (bud burst) RBLR: 33 (up from 0) OFM: 0 (same as last week)

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Information presented above and where trade names are used, they are supplied with the understanding that no discrimination is intended and no endorsement by Ohio State University Extension is implied. Although every attempt is made to produce information that is complete, timely, and accurate, the pesticide user bears responsibility of consulting the pesticide label and adhering to those directions.

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