



Newsletter Extension

Fruit ICM News

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Calendar

January 28-30, 2002: Indiana Horticultural Congress and Trade Show, Adam's Mark Hotel, Indianapolis. Attend informative programs, including Beginning Commercial Apple Growing, Grape Growing and Winemaking, Organic Farming, Medicinal Herbs and Herbal Supplements, Tree Fruits, Pumpkin School, New Specialty Crops and Marketing Strategies. Registration fee is \$45 per person for non-members of Indiana growers organizations. (Spouse and children under 16 are free; additional members of your operation are \$20 per individual.) Certain special programs require separate registration and/or fees. For more information visit <http://www.hor.purdue.edu> or call Jane Slipher at Purdue University, 765-494-1293 or email slipher@hort.purdue.edu. Call 317-248-2481 for hotel reservations.

February 4-6, 2002: Michigan State Tree Fruit Integrated Production & Pest Management School; Kellogg Biological Station, Hickory Corners, Michigan. Contact Gary Thornton at 231-946-1510 or e-mail nwmihort@msue.msu.edu for additional information.

February 6-8, 2002: Ohio Fruit and Vegetable Growers Congress, Toledo Seagate Convention Centre & Radisson Hotel. Plan to attend educational sessions on small fruit, tree fruit, cider, truck crops, potatoes, processing vegetable crops, greenhouse vegetables, and direct agricultural marketing. General sessions include OFB Workers' Comp group rating program safety session, crop protection adjuvants, stickers & technology, food safety, and changes to Ohio Uniform Food Safety Code. Visit the trade show featuring over 100 exhibitors serving fruit & vegetable growers & direct agricultural marketers. Details at <http://www.ohiovegetables.org> and <http://www.ohiofruit.org>.

February 17-19, 2002: Ohio Grape -Wine Short Course; Wyndham Dublin Hotel, Dublin, Ohio.

Contact Dave Ferree (ferree.1@osu.edu), Todd Steiner (steiner.4@osu.edu) or Dave Scurlock (scurlock.2@osu.edu) for information. You can also log on at <http://www.ohiowines.org>.

Manufacturers Face Deadline for Making Low-Risk Formulations for Organic Farming

By Karen L. Werner from Sustainable Agriculture Network listserv, via Joe Kovach, OSU IPM Program Coordinator

Organic farmers could lose the use of more than half the pesticides currently available if manufacturers do not re-formulate the products by October, Emily Brown Rosen, policy director of the Organic Materials Review Institute, told BNA Jan. 7. Bio-pesticide manufacturers will have to reformulate products used in organic agriculture by October 21 to ensure they contain only inert ingredients identified by the Environmental Protection Agency as of "minimal concern," she said.

The deadline for use of low-risk pesticides in organic farming was established in December 2000 in a Department of Agriculture rule dealing with the National Organic Program, which provides national standards for organic food production. EPA has been working to reclassify ingredients that meet the criteria for minimal concern, an alternative that would expand the number of pesticides available and take pressure off the bio-pesticide industry to reformulate its products.

Rosen's group, a nonprofit organization that reviews brand name products and formulations to ensure that all ingredients comply with USDA's organic rule, has been working with EPA to reclassify the inert ingredients. However, the agency is still analyzing various categories of inert ingredients. EPA officials did not return calls seeking comment on the matter. A USDA Ag Marketing Service spokeswoman said her agency cannot dictate EPA actions on the inert ingredients lists, but the agency is working with the Office of Pesticide Programs on the situation.

Classification of Ingredients:

Under the USDA regulation, inert ingredients in pesticides used on organic food must be on EPA's List 4, which identifies inerts of minimal concern. EPA classifies ingredients as either List 1, those of toxicological concern; List 2, those that are potentially toxic and are a high priority for testing; List 3, inerts of unknown toxicity; or List 4, those of minimal hazard or risk.

About 41 inert ingredients widely used in organic agriculture are now on List 3 and would not be permitted for use in organic production after Oct. 21, Rosen said. Among the products at issue are copper fungicides, botanicals like Neem, and microbials, Rosen said. Pesticide makers and the Organic Trade Association, which represents growers, retailers, and manufacturers of organic products, are hoping EPA will move more quickly on reclassification.

The Biopesticide Industry Alliance has discussed the situation with Janet Andersen, director of EPA's Biopesticides and Pollution Prevention Division, according to an industry official. EPA has to move quickly to reclassify ingredients from List 3 to List 4, Gary Libman, director of regulatory affairs with Emerald BioAgriculture Corporation of Lansing, Michigan, told BNA. Libman is a member of the alliance's regulatory affairs committee.

EPA has not formally reviewed and reclassified List 3 inert ingredients. However, Libman said, those ingredients are contained in biopesticides currently applied by organic growers and in other reduced-risk products. The ingredients are presumed to be safe, Libman said.

As part of its effort, the Organic Materials Review Institute sent EPA the names of 60 List 3 inert ingredients used in organic agriculture, Rosen told BNA. Rosen said she anticipates EPA will be able to move 17 polymers and some of the products of low concern onto List 4 this year. Some 14 other inert ingredients need risk assessment and data. Of those, most will likely be acceptable to EPA, while one or two may raise additional questions, Rosen said.

Editor's Note: Web sites for some of the organizations listed are as follows:

Organic Materials Review Institute: <http://www.omri.org>

A brand name products list of allowed or regulated materials: http://www.omri.org/crops_alpha.pdf

Biopesticide Industry Alliance: <http://www.pestlaw.com/x/press/2001/BPIA-20010823A.html>

Emerald Bioagriculture Corporation: <http://www.emeraldbio.com/home.html>

Organic Trade Association: <http://www.ota.com>

2001 Raised Bed Planting Demonstration for Raspberries

Source: Shawn R. Wright, Christie Welch, Lynn Miller, and Richard C. Funt

Introduction

Individuals who are planting raspberries are encouraged to establish raised beds. The root system of a raspberry is fibrous and relatively shallow (Dana and Goulart 1989), which makes the plants susceptible to moisture extremes. Too much water may kill the roots or make the plants more susceptible to soil-borne

diseases. Too little water will stress plants and limit cane growth and fruit production (Goulart and Funt, 1986).

The establishment of raised beds by incorporating organic matter will allow the grower to modify soils that are less than ideal (Funt and Bierman, 2001). Organic matter that is added to soils that drain too slowly (fine-textured clay soils) will help improve the soil structure so that excess water drains more quickly. Organic matter that is added to soils that drain too quickly (coarse-textured sandy soils) will help those soils retain moisture in the root zone where it is available for the plant's use (Funt and Bierman, 2000).

If additional organic matter is not available, raised beds can be built up from the topsoil in the inter-row areas by plowing the soil to the center of the row. This method is less satisfactory than adding additional organic matter, but on small, non-commercial plantings may provide acceptable results. It is important to have soil testing done prior to planting so that any pH or fertilizer needs can be addressed however

the beds are constructed. For commercial plantings, nematode testing is also recommended.

Conclusion

Because it is not difficult to create raised beds, and because raspberry beds are usually in place for 10 years, we believe that the benefits provided are worth the time and effort it takes to create them. Careful consideration should still be given to the economics of creating raised beds and to site selection. Raised beds can be less expensive than the installation of tile drainage. The complete report is available at: <http://www.ag.ohio-state.edu/~prec/hort/data/2001/raised2001.htm>.

Ohio Food Safety Regulations and Labeling Requirements

Source: John Wargowsky, Director of Labor Services, Ohio Farm Bureau Federation. Reviewed by the Ohio Department of Agriculture, Division of Food Safety

Where to get information about the current Ohio Uniform Food Safety Code and other Ohio Food Safety Regulations ?

Direct agricultural marketers and farmers who are licensable through the Ohio Uniform Food Safety Code will need to work with local health department officials. Initial communication should always be directed to the local health department. As with any new program, there will be problems that arise and need to be resolved. Consumers, academia, industry, local health department personnel, etc. are encouraged to contact the Ohio Department of Agriculture, Division of Food Safety with questions related to this new program that are not resolved locally. Anyone exempt from provisions of, or not covered by, the Ohio Uniform Food Safety Code should contact the Ohio Department of Agriculture directly for assistance with food safety regulations. The following communication vehicles are available:

E-mail: foodsafety@odant.agri.state.oh.us

Phone: 1-614-728-6250

Toll-free: 1-800-282-1955, ask receptionist or follow instructions to connect to Food Safety

Fax: 1-614-644-0720

Current laws and Ohio Uniform Food Safety Code

<http://www.state.oh.us/agr/FoodSafetyrfsac.html>

Keeping Perspective

It is important to remember that a number of problems being experienced are due to improper application of the existing Ohio Uniform Food Safety Code. Local health departments are still learning about the program and about the nature of the food industry that has not been regulated through local health departments in the past. Ask the Ohio Department of Agriculture (see above) for help in situations that cannot be resolved locally.

- Approximately one-half of local health districts had local food establishment programs prior to the new Ohio Uniform Food Safety Code. The fees were generally less, and inspection requirements may have been less stringent.
- Exempting entities from the Ohio Uniform Food Safety Code does open the door for local health districts to establish local ordinances that could regulate where the state code does not.

- Potentially hazardous foods (meat, milk, eggs, cream pies, sliced melons, sprouts, etc.) are not exempted at all in the current law, except in very limited cases.
- Are you experiencing problems with the Ohio Uniform Food Safety Code that have not been addressed by working through local your health district and the Ohio Department of Agriculture? If so, contact your county Farm Bureau (if a FB member) and ask them to forward your issue to me.
- All citizens are welcome to attend regular meetings of the Retail Food Safety Advisory Council or to communicate directly with one or more members of the Council. Meeting information and Council information is available on the web site listed above.

Guidance for Industry - Exemptions from the Warning Label Requirement for Juice - Recommendations for Effectively Achieving a 5-Log Reduction

Source: <http://www.cfsan.fda.gov/~dms/juicgui2.html>

Draft released for comment on December 21, 2001. Comments and suggestions regarding this draft document should be submitted by February 19, 2002 to the Dockets Management Branch (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852 to ensure adequate consideration in preparation of the final guidance. However, written or electronic comments may be submitted at any time. Submit electronic comments to <http://www.fda.gov/dockets/ecomments>. All comments should be identified with the docket number cf0161. For questions regarding this draft document, contact Jennifer A. Burnham, 202-260-0773.

Draft Guidance

The Office of Plant and Dairy Foods and Beverages in the Center for Food Safety and Applied Nutrition has prepared this guidance. This guidance represents the agency's current thinking on reducing microbial food safety hazards in juice. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. An alternative approach may be used if such approach satisfies the requirements of the applicable statute and regulations. This guidance document supercedes "Warning and Notice Statement: Labeling of Juice Products Small Entity Compliance Guide," September 18, 1998, <http://www.cfsan.fda.gov/~dms/juicguid.html>.

Background

In the Federal Register of July 8, 1998 (63 FR 37030), the Food and Drug Administration (FDA) published a final rule requiring a warning label on any juice that has not been processed to prevent, reduce, or eliminate pathogenic microorganisms that may be present (the "juice labeling rule"). In this guidance document, juice is any juice or juice ingredient in a beverage, as defined by 21 CFR 120.1(a). Under 21 CFR 101.17(g), any juice or juice ingredient that is not processed to reduce pathogens by 100,000-fold (i.e., attain a 5-log reduction in the pertinent microorganism) must bear a warning label. Because labeling may have limited effectiveness (i.e., it must be read and be understood), the warning label was intended to provide a measure of public safety until final Hazard Analysis and Critical Control Point (HACCP) regulations for juice could be established and implemented.

In the Federal Register of January 19, 2001 (66 FR 6138), FDA published a final rule requiring the

application of HACCP principles to the processing of any juice or juice ingredient in a beverage (the "juice HACCP rule"). Juice produced in a retail establishment (i.e., a facility that produces juice that is only sold directly to consumers) is exempt from the HACCP requirements. Like the juice labeling rule, the juice HACCP rule utilizes the standard of a 5-log reduction in the pertinent microorganism. Specifically, under § 120.24(a), juice processors must establish control measures that will produce such a reduction.

After the publication of the juice labeling rule, FDA's scientific understanding of how to attain effectively a 5-log reduction evolved, as discussed in the preamble and as reflected in the requirements of the juice HACCP rule.

Purpose of this Guidance

The purpose of this draft guidance document is to provide guidance to those juice processors not yet subject to the juice HACCP rule (e.g., small and very small processors who are not subject to the juice HACCP rule until January 21, 2003 and January 20, 2004, respectively) who are performing a 5-log reduction to attain exemption from the label warning requirement. This draft guidance document also provides guidance to processors at retail who are not subject to the juice HACCP rule and who are performing a 5-log reduction to attain exemption from the warning label requirement. FDA encourages those processors to operate consistently with this draft guidance in terms of 5-log reduction treatments because this draft guidance is based upon FDA's current scientific knowledge. The previous 5-log reduction guidance in the juice labeling rule and FDA's guidance document, "Warning and Notice Statement: Labeling of Juice Products Small Entity Compliance Guide" (the "small entity compliance guide") (Ref. 1), are superceded in part by this guidance because these documents no longer reflect FDA's current thinking.

FDA Recommendations

FDA's current scientific understanding of how to attain effectively a 5-log reduction is based on information obtained from public meetings, discussions, comments to the juice HACCP proposed rule (63 FR 20450), and recommendations from the National Advisory Committee on Microbiological Criteria for Food (NACMCF) (Refs. 2 and 3). To assist juice processors in attaining a 5-log reduction consistent with current scientific knowledge, Table 1 compares FDA's previous and current recommendations for achieving the 5-log reduction. The following questions and answers provide additional guidance for current recommendations for the 5-log reduction:

Question: When in the process should the 5-log reduction treatment be applied?

Answer: Based upon current scientific understanding, FDA recommends that the 5-log pathogen reduction and final product packaging occur under one firm's control, in a single production facility that is operating under current Good Manufacturing Practices (CGMPs) and immediately before or immediately after packing. This recommendation is for both citrus and non-citrus juices. Thus, good agricultural practices (GAPs) and CGMPs at the farming and harvesting stages are encouraged, but should not be counted towards the 5-log reduction. The basis for this recommendation is discussed in more detail in the juice HACCP rule(66 FR 6138 at 6166).

Question: What should be treated?

Answer: FDA recommends that juice processors use treatments that directly contact all pathogens that may be present in or on the fruit or vegetables being processed. For most products, this means that the

treatments should be performed on the juice after it is expressed. For citrus juices only, effective surface treatment of the citrus fruit may constitute direct contact with all pathogens, and thus, processors may consider counting such treatment toward the 5-log reduction. If surface treatments are used on citrus fruits to achieve the 5-log reduction, FDA recommends that the treatment be applied to undamaged tree-picked fruit (USDA choice or higher quality) that has been cleaned. The basis for this recommendation is discussed in more detail in the juice HACCP rule (66 FR 6138 at 6171).

Summary

Processors who do not treat their juice to achieve the 5-log reduction should continue to comply with the juice labeling rule. However, based upon FDA's current knowledge, processing juice in accordance with the recommendations in the small entity compliance guide for the juice labeling rule may not reduce pathogens to an acceptable level. Therefore, juice processors claiming exemption from the warning label requirement on the basis of the 5-log reduction provision of 21 CFR 101.17(g)(7) should consider the principles in this guidance. FDA plans to publish two additional guidance documents, "Guidance for Industry: Juice HACCP Hazards and Control Guide" and "The Juice HACCP Regulation: Questions and Answers", that will provide additional information on the juice HACCP rule, including assistance in achieving a 5-log reduction. Both documents will be available electronically.

Table 1: Comparison of FDA's Previous and Current Recommendations for 5-Log Reduction

Previous Guidance	Current 5-Log Guidance (Draft)
5-log reduction must occur in target pathogen for a period of at least as long as the shelf-life of the product stored under normal or moderate abuse conditions (juice labeling rule, 21 CFR 101.17(g)(7)(i)).	No change (juice HACCP rule, 21 CFR 120.24(a)).
5-log reduction may include measures taken during farming, harvesting, or processing over which the processor has control and which are effective (Small Entity Compliance Guide).	5-log reduction and final packaging should occur under one firm's control and within a single production facility. Any reduction of pathogens based upon the application of GAPs and CGMPs in farming and harvesting is encouraged, but should not be counted towards 5-log reduction (see 21 CFR 120.24(b) and (c)). Once the juice HACCP rule is effective, juice processors subject to the rule must perform 5-log reduction treatments in the final packaging facility (juice HACCP rule, 21 CFR 120.24(b) and (c)).
5-log reduction may be cumulative (Small Entity Compliance Guide).	No change (preamble to the juice HACCP final rule).
No prior guidance	5-log reduction should use treatments that directly contact all pathogens that may be present. For citrus fruit, surface treatment may be counted toward 5-log reduction following cleaning and culling. For non-citrus fruit, treatment should be applied to the expressed juice (see 21 CFR 120.24(b)).

Once the juice HACCP rule is effective, juice processors subject to the rule must use a treatment that directly contacts all pathogens (juice HACCP rule, 21 CFR 120.24(b)).

References:

1. FDA, DHHS, "Guidance for Industry: Warning Notice Statement: Labeling of Juice Products Small Entity Compliance Guide," September 18, 1998.
2. FSIS, USDA, "National Advisory Committee on Microbiological Criteria for Food," 64 FR 63281-63282, November 19, 1999.
3. NACMCF, "National Advisory Committee on Microbiological Criteria for Food, Meeting on Fresh Citrus Juice; Transcript of Proceedings," December 8 to 9, 1999, public meeting.

Raspberry Production Increasing in Ohio

By Candace Pollock, News & Media Relations, College of Food, Agriculture, & Environmental Sciences, OSU

Source: Sandy Kuhn, Berry Coordinator, Piketon Research & Extension Center, OSU

Raspberry production is on the rise in Ohio, according to a series of surveys conducted by Ohio State University and Ohio Agricultural Statistics Service researchers. The surveys, conducted last summer, show that 360 acres of black, summer red, and fall red raspberries were harvested in 2001, yielding 303,000 pounds of berries. The production was an increase over the 1997 Ohio Census of Agriculture report of 245 acres of raspberries, which yielded 291,000 pounds of berries.

"The surveys are a good indicator that interest in growing raspberries in Ohio is steadily increasing," said Sandy Kuhn, berry coordinator of the university's South Centers at Piketon. "But even what farmers are growing in the state may not be enough to meet consumer demand. Raspberries that were provided to a farmer's market in Athens this past summer, for example, sold out in less than 20 minutes."

The series of surveys, which included a pre-season survey in June, weekly in-season surveys in July and August, and an end-of-the-season survey in October, were designed to determine how many acres of raspberries are being grown in Ohio, where producers market their crop, what type of raspberry dominates the market, how producers sell their crop, and at what price. Kuhn will present the results of the survey and explain what it all means to farmers at the Ohio Fruit and Vegetable Growers Congress and Ohio Roadside Marketing Conference, February 6-8 in Toledo, Ohio.

Black raspberries accounted for 63 percent of production, followed by 23 percent of summer red raspberries, and nearly 13 percent of fall red raspberries. Other types of raspberries, such as purple and golden, made up less than one percent of production. Approximately 190 growers were surveyed. Most preferred to sell their berries mainly through pick-your-own operations.

"The biggest result of the surveys that surprised us was the discrepancy in price the growers were charging for berries," said Kuhn. "We found that price was dependent on the type of raspberry sold, the type of market in which the berry was sold, and in what region of the state the sale occurred. It's clear

that markets closer to large cities fetched higher prices."

Growers were averaging about \$2.04 per pound of raspberries. Purple, golden, and red summer raspberries fetched the highest prices on average, ranging from \$2.47 to nearly \$3.00 a pound. Black and fall red raspberries closed out the group, averaging nearly \$2.00 a pound. In pick-your-own operations, growers were averaging \$1.56 a pound for their berries, followed by fresh-picked berries at \$2.75 a pound and berries sold at farmers markets for \$3.25 a pound.

"The next step is to potentially work with some grocery chains to see what needs to be done to give growers a little bit more of a competitive edge. Where are these chains buying their berries, how much are they paying for them, and what do they look for in quality?" said Kuhn. "Berries sold at produce auctions and wholesale markets were commanding prices comparable to those sold retail on the farm. That in itself is a strong indicator that there is still room for more berries to be sold through both fresh and wholesale markets."

The sale of raspberries in Ohio totaled more than \$615,000 last year. Survey participants indicated they plan to increase their acreage by 15 percent this year. If this is realized, planted acreage will increase to approximately 415 acres.

The Ohio Fruit and Vegetable Growers Congress and Ohio Roadside Marketing Conference is designed to provide fruit and vegetable growers the latest in research information, food safety and labor regulations, and economic opportunities. The conference is sponsored by The Ohio State University, Ohio Vegetable and Potato Growers Association, Ohio Fruit Growers Society, and the Direct Agricultural Marketing Association of Ohio. For more information on the conference, contact the Ohio Fruit and Vegetable Growers office at 614-249-2424, e-mail growohio@ofbf.org, or log on to <http://www.ohiofruit.org> or <http://www.ohiovegetables.org>.

Preliminary Monthly Climatological Data for Selected Ohio Locations December 2001

Weather Station Location	Monthly Precip	Normal Monthly Precip	Year-to-Date Precip	Normal Year-to-Date Precip	Average High	Normal High	Average Low	Normal Low	Mean Temp.	Normal Mean
Akron-Canton	2.34	2.95	32.90	36.82	42.2	37.7	29.1	23.6	35.6	30.7
Cincinnati	4.08	3.15	46.58	41.33	47.1	41.5	31.5	25.3	39.3	33.4
Cleveland	2.53	3.09	34.36	36.63	43.2	37.4	30.9	24.5	37.1	30.9
Columbus	3.01	2.86	36.87	38.09	44.9	39.2	31.8	24.6	38.4	31.9
Dayton	3.66	2.93	42.20	36.64	43.9	39.1	30.6	24.0	37.3	31.5
Fremont	2.03	2.72	32.50	34.69	44.8	36.7	27.5	21.8	36.1	29.2
Mansfield	2.52	3.07	33.99	39.66	41.5	36.8	28.6	22.7	35.1	29.8
Norwalk	2.29	2.77	32.04	35.64	42.9	37.0	29.5	21.8	36.2	29.4

Piketon	1.89	3.30	27.06	42.10	49.1	43.2	30.7	23.8	39.9	33.5
Toledo	2.01	2.93	33.90	32.97	43.6	35.2	30.4	20.5	37.0	27.8
Wooster	2.29	2.62	29.02	36.19	44.2	37.5	29.4	22.5	36.8	30.0
Youngstown	2.03	2.93	29.40	37.32	42.4	36.0	29.0	22.9	35.7	29.5

Temperatures in degrees F, Precipitation in inches

Record highs set: Dec. 5th; Akron-Canton 69, Cincinnati 70, Cleveland 71, Columbus 70, Dayton 68, Fremont 69, Mansfield 68,

Piketon 75, Toledo 70, Wooster 72, and Youngstown 71

Table Created by Ted W. Gastier, OSU Extension from National Weather Service, OARDC, & Local Data

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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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