http://ipm.osu.edu/fruit/index.html

THE OHIO STATE UNIVERSITY Newsletter Extension

Fruit ICM News

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Calendar

Nov. 12-13: Berry Symposium at The Ohio State University, at University Plaza Hotel and Conference Center, Olentangy River Road, Columbus. Speakers from numerous universities and USDA branches will address four areas: Berry Production and Plant Breeding, Berry Composition, Health Effects, and Marketing and Product Development. The main emphasis will be on the health effects of berries and the recent research that has been done utilizing berries for chemoprevention and other health benefits. Registration for the conference is $50 per day. For more information e-mail Sandy Kuhn at kuhn.37@osu.edu or Melissa Fitzpatrick at fitzpatrick.73@osu.edu or call the OSU South Centers at 800-297-2072.

Jan. 15-17, 2003: Ohio Fruit & Vegetable Growers Congress & Ohio Roadside Marketing Conference, Toledo SeaGate Convention Centre and Radisson Hotel. Contact Jennifer Hungerford at 614-249-2424 for more information.

Jan. 27-29, 2003: Indiana Horticultural Congress; Planning is currently underway for next year's Hort Congress, which will be held January 27-29, 2003 at the Adams Mark Hotel in Indianapolis.

Feb. 7-8, 2003: North American Bramble Growers' Association will meet in Leesburg Virginia. The meeting will be held at the Holiday Inn at the Historic Carradoc Hall. Contact Jason Murray, Commercial Horticulture Agent, for further information, at jamurray@vt.edu or 703-737-8978. You can

view the program at http://www.ento.vt.edu/Fruitfiles/NABGAProgram03.pdf

Betty Hackenbracht

Source: Peg Caudill, FGMA Assistant Manager via Tom Sachs - Executive Director, OFGS

John and Betty Hackenbracht of Tastee Apple were involved in an automobile accident, October 10, 2002, in which Betty was tragically killed. John sustained only minor injuries and was released from the hospital. The funeral was held Monday, October 14th at 2:00 P.M. Cards may be sent to John and his family at 59956 CR 9, Newcomerstown, Ohio 43832. Our sympathy goes out to the entire Hackenbracht family.

Cabrio Registration for Berry Crops

Source: Mike Ellis, Ohio State University Extension Plant Pathologist

Cabrio 20 EG fungicide (pyraclostrobin) was recently registered for use on blueberry, brambles (blackberry and raspberry), and strawberry. It is registered for control of Alternaria leaf spot and fruit rot, powdery mildew, anthracnose fruit rot, Phomopsis leaf blight and twig blight, and suppression of mummy berry and Botrytis gray mold on blueberry. On brambles, it is registered for control of anthranose, septoria leaf spot, raspberry leaf spot, powdery mildew, rust diseases and spur blight, and suppression of Botrytis gray mold. On strawberry, it is registered for control of anthracnose fruit rot, powdery mildew and leaf spot, and suppression of Botrytis gray mold. Cabrio is an excellent material and provides good to excellent control of all these diseases. This is a very important product on brambles, largely due to the current lack of registered fungicides on brambles.

Cabrio is a strobilurin fungicide. This is the same class of chemistry as Quadris and Abound. Quadris is currently registered for us on strawberry, and Abound is currently registered for use on blueberry and grape. For purposes of fungicide resistance management, only 4 applications of Cabrio can be applied per crop per season on blueberry and brambles and no more than 5 applications can be made per season on strawberry. In addition, no more than 2 sequential applications can be made before switching to a fungicide with another type of chemistry. Cabrio cannot be alternated with Quadris or Abound as a fungicide resistance management strategy.

Cabrio has a 0-day preharvest interval on all registered berry crops; however, the re-entry interval is 24 hours. **Remember:** Always read the label.

Tilling the Soil of Opportunity Scholarship

Source: Laura Ann Bergman, Executive Director, Innovative Farmers of Ohio, via Tom Sachs, OFGS

Innovative Farmers of Ohio is proud to announce the availability of $100 scholarships for fruit and

vegetable producers to participate in "Tilling the Soil of Opportunity", a 10-week class beginning on October 15 in six locations throughout the state: Wooster, Piketon, Athens, Caldwell, Hillsboro, and Bowling Green. These workshops are being conducted through the Small Business Development Center and OSU Centers at Piketon. (Although this notice is given after the first class, you may still enroll). Scholarship preference is given to the Wooster location.

This training is for aspiring and existing Ohio farmers interested in investigating new alternatives in agriculture! The course is aimed at those individuals who have started or are thinking about starting an agricultural-based venture that is not tied to large scale, commodity-style production.

For further information on "Tilling the Soil" scholarships, contact: Laura Ann Bergman, Executive Director, Innovative Farmers of Ohio 740-368-8552, foh@aol.com, http://www.ag.ohio-state.edu/~tilling or contact: Bill Smeltzer, SBDC and OSU South Centers, 740-289-3727, or smeltzer.17@osu.edu

Congress Peach Workshop in Toledo

Source: Richard C. Funt, Department of Horticulture & Crop Science

Ohio peaches have been plentiful for the past few years. Annual peach production increased 40 percent from 1998 to 2001. Prices for peaches in Ohio have also increased from $0.42 to 0.49 per pound during the same time. In 1930, there were 3.8 million peach trees in Ohio, but between 1950 and 1980 the number of acres and growers declined dramatically. In 1970 there were 4,000 acres and the estimated acreage in 2001 was about 1,200 acres. Reports indicate new plantings have been added in recent years and plans for new acreage in 2003 are being discussed.

An in-depth peach workshop at the Ohio Fruit and Vegetable Congress will be held on Friday morning, January 17, 2003 in Toledo, Ohio. All major topics of managing a peach enterprise, including estimated costs and returns will be presented in a four hour session. Research gleaned from 1979 to 2002 will provide the base for the workshop. Growers will provide additional comments as to their experiences with cultural and marketing practices. Drs. Dick Funt, Mike Ellis, and Stephen Myers from Ohio State University, Howard Siegrist and Ted Gastier, Ohio State University Extension (OSU Fruit Team members), and Dr. Randy Beaudry, Michigan State University, will provide information and leadership to the workshop. For more information contact: Tom Sachs, Two Nationwide Plaza, P.O. Box 182383, Columbus, OH 43218-2383 or tsachs@ofbf.org. You may also reach him by phone at 614-249-3056.

Food Safety Grant

Source: John Wargowsky, MAAHS Executive Director

Mid American Ag and Hort Services, Inc., (MAAHS), received a $53,000 grant to increase awareness and adoption of Good Agricultural Practices (GAP) by specialty crop producers in Ohio. John Wargowsky, executive director of MAAHS and Mary Donnell, OSU Extension Agent and Ohio's collaborator for GAP, wrote the grant to help fresh fruit and vegetable growers increase the safety of the food they produce. As a result of the grant, Ohio growers will have the opportunity to learn about Good

Agricultural Practices through on-farm consultations, food safety workshops, and a variety of educational materials. GAP education increases awareness of methods of production, harvesting, and post-harvest handling that increase the safety of fresh fruits and vegetables.

MAAHS will work with the Center for Innovative Food Technology (CIFT), Ohio State University Extension ABE Center, in consultation with the Ohio Department of Agriculture Division of Food Safety in delivering the GAP teaching materials to producers.

The Ohio Specialty Crop Food Safety Initiative will help increase the awareness and adoption of Good Agricultural Practices, increase ratings on third-party audit inspections, and increase recognition by produce buyers throughout the United States of Ohio's high standards of food safety and good agricultural practices. This program will be featured at the upcoming Ohio Fruit and Vegetable Growers Congress in a general session and at the trade show.

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. For more information on the Ohio Specialty Crop Food Safety Initiative, contact John Wargowsky at 614-246-8286 or jwargows@ofbf.org, or Mary Donnell at 419-354-6916 or donnell.8@osu.edu.

Dry Weather Boosting Apple Quality

By Candace Pollock, OSU News, Source: Dick Funt, OSU Horticulturalist

The growing season's dry weather may have hurt some crops, like corn and soybeans, but has done wonders for Ohio's apples. The drought may have been a factor in reduced apple production (80 million pounds as of Oct. 1 compared to 103 million pounds last year), but has produced a crop of exceptional quality and taste, driving up demand as well as the commodity price.

"Dry weather cut down on fungal diseases, so the quality of the apples is good. And the taste is just exceptional. The fruit is much sweeter tasting," said Tom Sachs, executive director of the Ohio Fruit Growers Society. "So the result is strong demand from consumers and a little bit more in the pockets of producers."

According to the U.S. Department of Agriculture, Ohio apple growers were getting 33 cents per pound in September, three cents higher than the U.S. average and four to eight cents higher than other major apple-producing states like New York, Washington and Michigan. That's good news for an industry that has seen declines in planted acres and production and has only been averaging 23 cents per pound over the past decade, said Dick Funt, an Ohio State University Extension small fruit specialist.

"The market is strong in Ohio because 60 to 70 percent of apples produced are for the fresh market, whereas other states like Pennsylvania and Michigan produce the bulk of their apples for processing, which fetches a lower price," said Funt. "However, it's still good to see growers generating a bit of a profit. We like to see growers get 28 to 29 cents a pound for their apples. You can hardly produce apples and get them in boxes for market at 21 cents a pound."

One impact drought has on apple production is that the dry weather generates smaller fruit size, which has hurt some states like Washington and Michigan. However, said Funt, the smaller apples mean a

smaller area of concentrated sugars. The result is a sweeter fruit that keeps consumers coming back for more.

"During Farm Science Review in September, the Ohio Farm Bureau gave out 30 to 40 percent more apples to visitors than normal simply because consumers loved the way the apples tasted," said Sachs. Funt said that the majority of Ohio's 10-12 apple varieties are enjoying the sweet success of the season's warm, dry weather, with southern Ohio generating the most profitable yields. According to the USDA, Ohio is ranked 11th in the nation in apple production. Production was valued at $23.7 million in 2001.

Cold Acclimation in Strawberries: How Strawberries Get Ready For Winter

Source: Pam Fisher, OMAFRA, via Massachusetts Berry Notes, October 2002, Vol. 14, No. 17, http://www.umass.edu/fruitadvisor/berrynotes/index.html

The process of developing tolerance to cold temperatures is called acclimation. Cold acclimation in strawberries begins when days get shorter in late summer. Short days alone will trigger strawberries to develop tolerance to minus 2°C or minus 3°C. For further acclimation, plants must be subjected to cold temperatures, i.e. days of about 10°C and nights around 0°C. Photosynthesis is also required for cold acclimation to occur, so plants which are mulched before these conditions have been met will not be as winter-hardy.

Even when fully acclimated, or "hardened-off for winter," strawberry plants are not as tolerant of cold temperatures as other perennial fruit crops. Cold injury to crowns appears as browning of crown tissue. Crowns will be killed at temperatures of minus 12°C to minus 14°C in the crown, but even tissue temperatures of minus 6°C can lead to reduced leaf number, leaf distortion, and fewer flowers and fruit.

The extent of cold-temperature injury in strawberries is determined by many factors. These include the extent of cold acclimation, the cultivar, the part of the plant affected, the rate and duration of freezing, and cultural practices. Rapid freezes, when tissue temperatures drop 2-3 degrees per hour, are fatal. Although the duration of freeze also affects how much injury occurs, most injury occurs in the first 24 hours of damaging temperatures. Freeze/thaw/freeze cycles will also cause more injury than consistently cold temperatures, if the thaw lasts more than 2-3 days.

Nutrient and water status of strawberry plants also affects cold acclimation. Excess or deficient nitrogen will inhibit acclimation, while optimum levels of phosphorous promote acclimation. Plants acclimated under dry conditions fare better than plants that are not water-stressed. Mulching is also important to prevent cold-temperature injury. Raised beds can be 4 to 6°C colder than flat beds, but mulching overcomes most of this negative effect. (Source: The All Ontario Berry Grower, Volume #0.10 - October/2001)

What's New in Gooseberries and Currants

Source: Ed Mashburn, Northumberland BerryWorks, Northumberland, PA via Massachusetts Berry Notes, October 2002, Vol. 14, No. 17

Several years ago I spoke on gooseberries and currants for growers in this area. There have not been a great deal of new cultivars added since then, but there have been some new trials and there will be some new introductions in the near future. This is not because there is no interest in ribes, but the wheels turn slowly and development takes quite a while. I have about a dozen varieties that should be released from plant quarantine this year; they are some promising varieties from Europe. It takes about 4 to 5 years to "clear" imports from Europe.

Black Currants: The standard varieties for production at this time are Titania, Ben Sarek, and Ben Lomand.

Titania - A very good variety that is fully resistant to White Pine Blister Rust and Powdery Mildew. It is a heavy yielding variety; berries are large but lack the full flavor that is generally found in the commercial juicing berries. It is very good for PYO and fresh market.

Ben Sarek - A compact growing plant that is moderately resistant to WPBR and Mildew. It is very high yielding and has very large berries. The flavor is full and this variety is used mainly for PYO and home use. It is not suitable for commercial juice production.

Ben Lomand - The "standard" for commercial juice production for many years. A large, robust plant that produces very high yields of large berries. This variety is fairly susceptible to WPBR and to Mildew. The berries and production are not greatly affected by these diseases and the fruit may be utilized for home use and commercial production of jam, jelly, juice, and fresh market sales.

At the present time, there is very little commercial production of juice in this country and most of the berries go to wine makers and to the fresh market. All the above are suitable for that. Black currants are generally used as a processed fruit and few are used raw from the plant. Most people are not attracted to the strong flavor of the raw berries.

In the past few years there have been several varieties of Russian origin that have been much more palatable and acceptable to fresh raw use. I have trialled several of these and will start increasing two or three selections this year. They have produced large berries that are sweeter and very palatable right off the bush. I think that there is a market for these berries as fresh fruit and they would be very good for home use and for small scale commercial production.

The Ribes breeding program from the University of Maryland has also produced some good selections that we will start increasing and trialling in some other locations. This program is in the 5th year and is going well.

There are a number of other varieties of Black Currants available to the market, but none that are generally in use for anything other than home use. The breeding of new varieties is controlled by commercial processors of juice in Europe and they do not make the varieties available to the general public that are not in contract production.

Red Currants: Production of Red Currants is much smaller and goes mostly to Jelly and to wine. There is not a great deal of difference in the varieties except in time of ripening and to some extent in yield. There are a couple newer varieties that have very high yields and are less prone to disease than the older varieties.

Rovada - This is a late season variety that is very good. It produces large berries and high yields and is resistant to most disease. This variety is a little slower coming into full fruit than other older verities and

the plant is a little smaller. It is an excellent variety for PYO and home use, it has large strigs of very good berries.

Detvan - A release from Slovakia that is a very large plant with very heavy production. The strigs are very long and well filled, the berries are large and mid-season. The berries are a little lighter color but still have that very beautiful red that is common to this fruit.

Tatran - A sister of Detvan, a very large plant, very heavy production and the berries are larger than any that I have seen on any variety of red currant. This is a very late season variety and will hold on the plant into late August. Both of the latter varieties are about one to two years later in coming into full production. There will be fair production two years after planting and full production in the 4th and 5th years. These varieties will probably out-produce any other variety at that time.

Most Red Currants are fairly susceptible to wind damage in the second and third year. The breeding program is not presently working on Red Currants but there are some plans to improve the taste and to reduce the size of the seeds. Seed size is a real problem with red currants, that is why most are made into jelly instead of jam.

Gooseberries: There is an increased interest in gooseberries everywhere. At the present time there are just a few varieties that are of real interest for commercial production.

Invicta - This is by far the best of the varieties for fresh table use at this time. It is a large sweet berry that has a very good flavor. The plant is very thorny but is resistant to Mildew and WPBR. It is a strong upright plant that can be grown without support. It is high yielding and fairly precocious, giving some production the year after planting. It is not real good for processing and for wine, as the flavor is diminished in the processing.

Hinomakki Red or **Lepaa Red** - This is a dual use berry that is resistant to Mildew and WPBR. It is a good red color and produces large amounts of berries. The fruit is somewhat smaller than Invicta and a riffle more tart, though they are pretty sweet when fully ripe. The berries can be processed when less than fully ripe and will retain good flavor. The plant tends to be a bit "weepy" in habit and is best supported on a wire trellis. **Amish Red** - Another dual purpose red fruited variety, resistant to WPBR and somewhat so to Mildew. A very productive variety with good flavor berries. These are pretty sweet and usable from the time that they color up and can be used for fresh or processing. This plant is best supported on wire also.

Pixwell - This is a variety that I have been reluctant to recommend for any use. The flavor, when ripe, is bland and there are not many redeeming features for this variety except that it makes very good wine. It needs to be harvested just a little under-ripe for that. The plants are erect and fairly strong and do not need support.

I think that there will be several new varieties of gooseberries on the market pretty soon. The problem with getting these at this time is that there is some dispute over marketing rights and who will be the propagators. Some of the new varieties are almost spineless and have large berries. Gooseberries are generally very susceptible to mildew and there is not much available (labeled) for that problem. I have about a dozen varieties that will become available to me this year and some will be used in the breeding program to induce resistance to mildew.

There has been a real increase in interest for homemade wine production, and there is a market for fresh fruit at this time. There are a number of other varieties that are used, but none that I would consider of

commercial potential at this time. (Source: Proceedings of the 2002 Mid-Atlantic Fruit & Vegetable Conference)

Terminal Market Wholesale Fruit Prices October 16, 2001

The intent of listing terminal market prices is to provide information available in the public domain. It is not intended for price setting, only to assist growers in evaluating the value of their crops. Producers need to remember that the prices listed are gross, and consideration must be given to marketing costs, including commission, handling charge, gate fees, and possible lumper fees.

Source: Chicago http://www.ams.usda.gov/mnreports/HX_FV010.txt
Detroit http://www.ams.usda.gov/mnreports/DU_FV010.txt
Pittsburgh http://www.ams.usda.gov/mnreports/PS_FV010.txt

	Chicago	Detroit	Pittsburgh
Apples, ctns trypk, U.S. ExFcy			**WV** 88s 21.75
Golden Delicious			100s 21.75
McIntosh Fancy Cortland	**WI** 64s, 72s, 80s 25-26 **WI** 72s 16.00		
Apples, ctns trypk, Comb U.S. ExFcy- U.S. Fancy G. Delicious Red Delicious			**WV** 125s 14.75 138s 14.75 **WV** 125s 13.75 138s 13.75
Apples, ctns celpk, U.S. ExFcy			
Empire		**NY** 100s 25-26.00 120s 21.00	
McIntosh	**NY** 80s 26.00	**NY** 100s 25-26.00 120s 20-21.00	
U.S. Fancy McIntosh	**NY** 80s 16.50-17.00 96s 26.00 100s 16.50-17.00		**NY** 80s 19-20.00 100s 19-20.00 120s 16.50
Apples, ctns celpk, Comb U.S. ExFcy- U.S. Fancy McIntosh		**MI** 96s 23.50-24.00	
Apples, cartons, 12 3-lb filmbags			
U.S. ExFcy Empire Ginger Gold Jonamac Jonathan		**MI** 2½" min 13.50-14 **MI** 2½" min 15-15.50	

McIntosh Red Delicious		**MI** 2½" min 14-14.50 **MI** 2½"min 16-16.50 **MI** 2½" min 15.00 **MI** 2½" min 16-16.50	
Apples, cartons, 12 3-lb filmbags			
U.S. Fancy - Empire		**MI** 2½" min 12.00	**WV** 2¼" min 13.75
Gala	**MI** 2½" up 16-16.50 2¼" min 15.00	**MI** 2½" up 15.75-16.25 **MI** 2¼" min 12.25-12.75	**PA** 2½" up 14-15.00 **WV** 2¼" min 13.75
Golden Delicious	**MI** 2½" up 15.00 **MI** 2¼" min 12.50	**MI** 2½" min 12.00 2¼" min 11.25-11.75	**WV** 2¼" min 13.75
Jonathan	**IL** 2½" min 15-16.00 **MI** 2¼" min 15.00	**MI** 2½" min 15.75- 16.25 2¼" min 11.75-11.75	
McIntosh		**MI** 2½" min 12-13.50 2¼" min 12.25-12.75 **NY** 2¼" min 16.00	**MI** 2½" min 15.00
Red Delicious	**IL** 2¼" up 15-15.50 **MI** 2 ¼" min 12.50	**MI** 2½" min 12-14.50 2¼" min 11.25-11.75	**WV** 2¼" min 13.75
Red Rome York Imperial			**WV** 2¼" min 13.75 **WV** 2¼" min 13.75
Apples, bu cartons, loose Empire Gala Golden Delicious Jonamac Jonathan Red Delicious	No Grade Marks **MI** 2½"min 16.00 2¼" min 13.00 **IL** 2¼" up 14-16.00 **MI** 2¼" min 12.00	U.S. Fancy **MI** 2¾" up 15.00 **MI** 2¾" up 15.00 **MI** 2¾" up 15.00 **MI** 2¾" up 15.00	<u>No Grade Marks</u> no size mark **WV** 13.75 **PA** 2½" up 13-14.50 no size mark **WV** 13.75 no size mark **WV**

McIntosh Cortland	**IL** 2¼" up 14.00 **MI** 2½" up 15.00 2 ¼" up 12.00	2½" up 13.50	13.75 **PA** 2½" up 11-12.00 **PA** 2½"up 12-13.00
Apples, bins loose Empire, Golden Delicious, Red Delicious, Rome			**WV** $190 (each variety)

USDA OCTOBER 2002 APPLE CROP ESTIMATE (000 42-lb. units)

	2002		2002	October Estimate			
		5-Year	August	October	Compared To:		
	2001	Average2	Forecast	Forecast	August	5-Yr Avg	2001
New York	23,810	25,929	17,143	**15,476**	-10%	-40%	-35%
Pennsylvania	11,429	11,381	11,190	**9,286**	-17%	-18%	-19%
Virginia	7,381	7,333	5,952	**5,952**	NC	-19%	-19%
North Carolina	2,857	3,986	3,810	**3,571**	-6%	-10%	25%
West Virginia	2,738	2,690	2,381	**2,262**	-5%	-16%	-17%
Massachusetts	929	1,171	762	**762**	NC	-35%	-18%
Maine	1,119	1,269	1,143	**1,143**	NC	-10%	2%
New Jersey	1,310	1,262	952	**952**	NC	-25%	-27%
Maryland	971	920	762	**762**	NC	-17%	-22%
New Hampshire	714	795	548	**548**	NC	-31%	-23%
Vermont	976	1,069	786	**786**	NC	-27%	-20%
Connecticut	488	502	286	**286**	NC	-43%	-41%
South Carolina	143	776	333	**333**	NC	-57%	133%
Georgia	214	290	238	**238**	NC	-18%	11%
Delaware	NA	NA	NA	**NA**	NA	NA	NA
Rhode Island	43	66	83	**83**	NC	26%	94%
Total East	55,121	59,440	46,369	**42,440**	-8%	-29%	-23%
Michigan	20,952	23,238	13,095	**12,381**	-5%	-47%	-41%
Ohio	2,048	2,043	1,905	**1,905**	NC	-7%	-7%
Illinois	1,038	1,253	1,000	**1,000**	NC	-20%	-4%
Indiana	1,262	1,249	952	**952**	NC	-24%	-25%
Wisconsin	1,476	1,600	1,381	**1,381**	NC	-14%	-6%
Missouri	976	1,024	810	**810**	NC	-21%	-17%

Minnesota	571	547	524	**524**	NC	-4%	-8%
Kentucky	207	199	190	**190**	NC	-4%	-8%
Tennessee	214	240	190	**190**	NC	-21%	-11%
Kansas	95	111	107	**107**	NC	-3%	3%
Iowa	210	233	193	**193**	NC	-17%	-8%
Arkansas	131	142	131	**131**	NC	-8%	NC
Total Midwest	29,181	31,879	20,479	**19,764**	-3%	-38%	-32%
Total East/Midwest	84,302	91,319	66,848	**62,205**	-7%	-32%	-26%
Washington	121,429	133,333	130,952	**128,571**	-2%	-4%	6%
California	16,667	19,371	14,286	**14,286**	NC	-26%	-14%
Oregon	3,381	3,805	3,333	**3,333**	NC	-12%	-1%
Idaho	1,905	2,643	1,667	**1,667**	NC	-37%	-13%
Colorado	595	776	619	**619**	NC	-20%	4%
Utah	714	833	357	**357**	NC	-57%	-50%
Arizona	129	1,075	1,119	**1,119**	NC	4%	770%
New Mexico	143	148	NA	**NA**	NA	NA	NA
Total West	144,962	160,556	152,333	**149,952**	-2%	-7%	3%
Total U.S.	229,264	251,875	219,181	**212,157**	-3%	-16%	-7%

Source: USDA, National Agricultural Statistics Service, *Crop Production, Oct. 11, 2002.,* The forecasts for Delaware was discountined in 1997. 2 The 5-Year Average does not include data for Delaware. NC - No change or the change is less than one percent. NA - Not available. Note: USDA forecasts October apple production in Michigan, New York, North Carolina, Pennsylvania, Virginia, Washington and West Virginia. The forecasts for all other states are carried forward from the August 2002 production forecast.

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veteran status.

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