

# *Indiana Horticultural Society, Inc.*

*Serving Indiana's fruit industry*

## NEWSLETTER

Vol. 58, No. 1

June 2010

Indiana Horticultural Society  
Summer Meeting  
Doud Orchard  
Countyline Orchard  
June 23-24, 2010

All are invited to attend the summer meeting of the Indiana Horticultural Society to be held June 23-24. Membership in the Society is encouraged but is not required.

Doud Orchard and Countyline Orchard are two of the oldest apple orchards in the state of Indiana. The two farms have been in the Doud family for over 150 years. They celebrated their orchard centennial in 1994, having started in the commercial orchard business in 1894 with a planting by Benson Doud. That original 10 acre orchard consisted of varieties such as Tulpehocken, Pewaukee, Rambo, Vandevere Pippin, Early Harvest and Strawberry. Lorenzo Doud, eldest son of Brenson, expanded the orchard to 20 acres and added cherries and peaches. Along with his brother Wilbert, the orchard was expanded to about 100 acres during the early 1930s. Lorenzo was one of the most progressive fruit growers in the state at the time, and was President of the Horticultural Society during the 60<sup>th</sup> annual meeting in 1920.

Lorne J. Doud, son of Lorenzo, assumed management of the orchard in 1967 after managing the other family orchard on County Line Road for two decades. Lorne was involved with orcharding and horticulture his entire life. In addition to his own orchard, he operated an apple nursery for many years. Lorne was one of the founding fathers of the Dwarf Fruit Tree Association (now called the International Fruit Tree Association), and travelled to Europe a number of times to study intensive fruit production and dwarfing rootstocks. He served as president of the Indiana Horticultural Society in 1964-65 and was a board member for 18 years. He was one of the early adopters of dwarfing rootstocks in the United States and was also one of the first nurserymen in America, beginning in 1940, to produce apple trees on the East Malling dwarfing rootstocks. It is hard to overstate the benefits these rootstocks have brought to the fruit industry across the country. In 1977 he received the Indiana Horticultural Society Distinguished Service Award. He and his wife received 2 Hoosier Homestead Awards for having 2 farms in the same family for 100 years or more.

**Doud Orchard:** Operated by Steve and Connie Doud, Doud Orchard grows over 100 cultivars of apples. Recently, Steve has removed trees of some older cultivars such as Red Delicious, Mutsu, Golden Delicious, Jonathan, Empire, and Chieftan. These have been replaced with newer more in-demand cultivars like Honeycrisp, Grand Gala, Auvil Early Fuji, etc. He also has a number of scab resistant varieties (GoldRush, Pixie Crunch, Crimson Crisp, Red Free, William's Pride, Scarlet Ohara, Nova Mac, Nova Spy) but a small amount of scab is starting to show up on these. During the tour we will discuss the status of the breakdown of apple scab resistance and strategies for managing once resistant cultivars. Steve Doud has been interested in red-fleshed apples for some time and has trees of Hidden Rose, Pink Pearl and Pink Parfait. He also has trees of a number of antique apple cultivars and some European cider varieties. His older apple plantings are on M.7, M.26, and MM.106, whereas newer plantings are predominantly on B.9, M.7 and M.26 rootstocks.

The orchard also grows peaches, and we will visit an older planting (planted 1998) and another planting that was established last year. Crops are heavy and thinning is a challenge. About 10 pear cultivars are also grown, mostly European types.

The orchard features a roadside market, where about half the apples are sold. About 20,000 gallons of cider is made each year. The operation won the state cider contest the first 3 times it was held. Given the low population base around the orchard location, the ability to expand the market is limited and other markets have been developed in recent years, especially supplying heirloom and specialty fruit to Whole Food Markets.

Steve has been active in the industry for many years and is a member of the Midwest Apple Improvement Association (MAIA). He currently has MAIA seedling populations growing which he is evaluating.

**Countyline Orchard:** David, with his wife Valerie, established Countyline Orchard on family land about 25 years ago. During the early planting years of 1988-93, many of the plantings consisted of commodity cultivars. On our visit we will see that David has been moving away from these commodity-type apple cultivars and moving more towards modern and specialist cultivars. Some orchards are being removed and replanted, while others are being top-worked to more desirable cultivars.

The orchard comprises about 15 acres of apples, 3 acres of pears, 3 acres of peaches and 3 acres of strawberries. Deer damage has been a major challenge to the establishment of new orchards, and a concern with B.9 rootstock is that it may not withstand the level of deer browsing present. In the spirit of his father, David is propagating most of own apple trees. Asian pear varieties include Korean Giant, Kosui, Shenko and Ya Li.

A small amount of the apples are sold on-farm, and some wholesale but the majority is sold through a number of farmers' markets David visits throughout September, October and November. David is the current president of the Indiana Horticultural

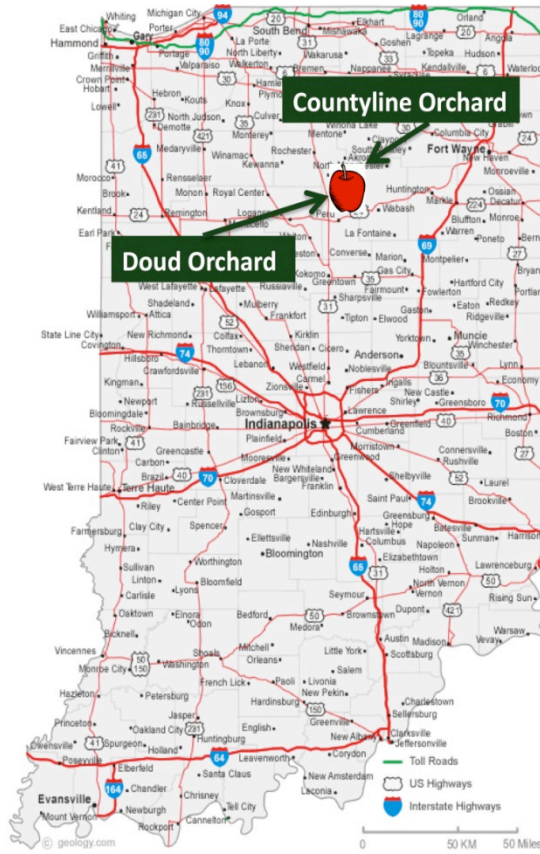
Society and is a board member of the Midwest Apple Improvement Association (MAIA). He has plantings of advanced selections of MAIA material and is excited about the prospects of some of these selections. He conducts tastings of these new selections at Farmers' Markets.

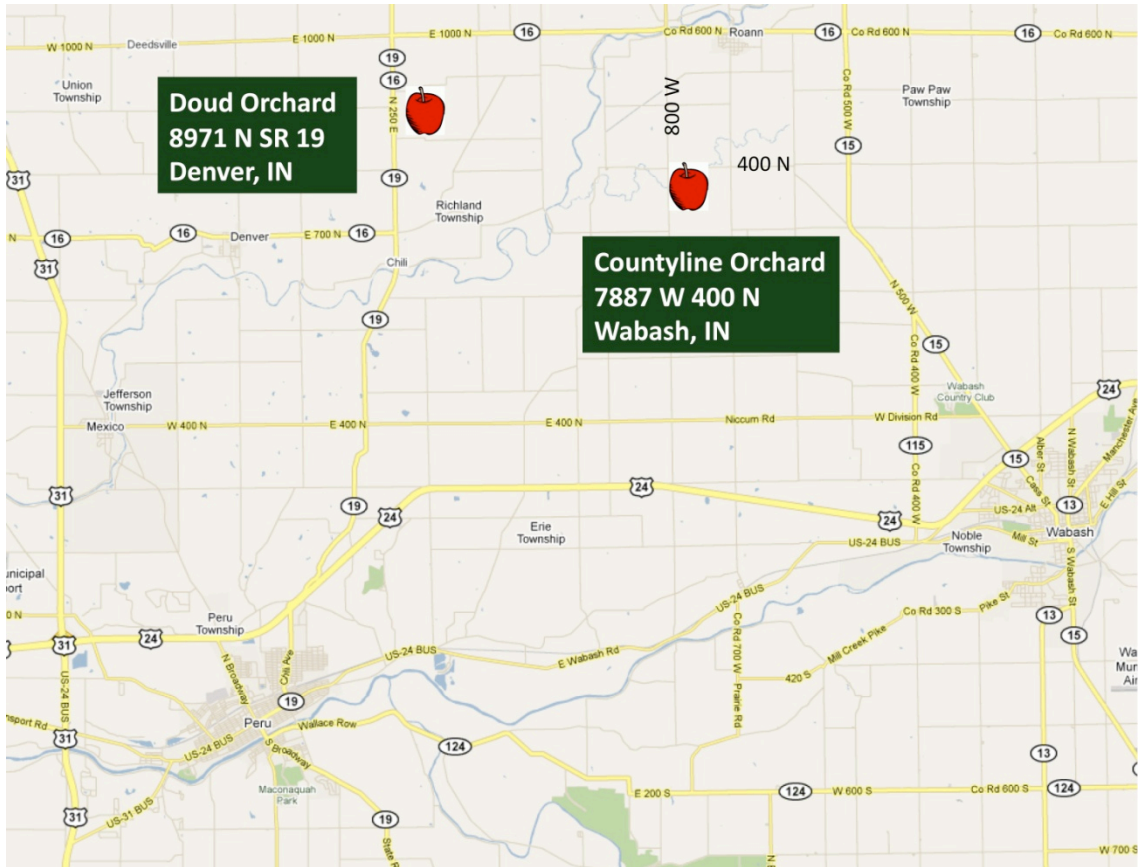
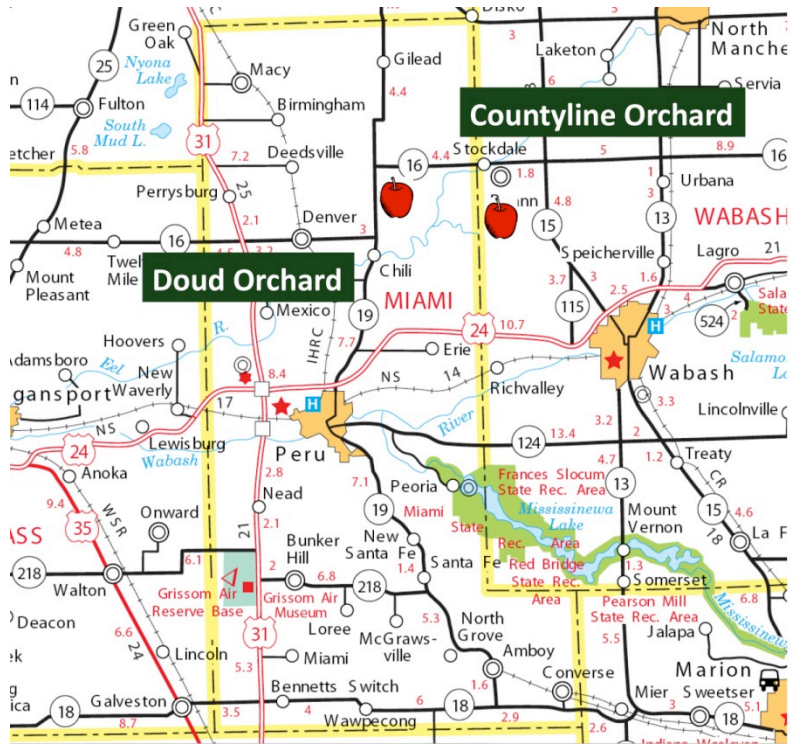
**Directions:**

Doud Orchard is located on SR 19 just north of Chili in Miami County. The address is: 8971 N SR 19, Denver, IN 46926

Countyline Orchard is located in Wabash County. The address is: 7877 W 400 N, Wabash, IN 46992

See maps for location.





## **Program Schedule:**

### Wednesday June 23 Doud Orchard, Denver, IN

12:30 pm Registration  
1:00 pm Welcome and introductions  
Tour of market  
Tour of facilities (packing line, cool storage, cider room)  
2:00 pm Field tour  
4:30 pm Conclude field tour  
Round table discussion  
5:30 pm Dinner – hog roast at Full Circle Farm

### Thursday June 24 Countyline Orchard, Wabash, IN

8:30 am Assemble at farm  
Coffee and registration  
9:00 am Introductions, overview of farm and operations  
9:30 am Field tour  
11:30 Conclude field tour  
Hort Society business meeting  
12:00 pm Lunch served at the farm  
1:00 pm Concluding remarks and adjourn

## **Lodging**

There are a number of options for lodging within easy driving distance of the farm. Some of the closer ones are:

Holiday Inn Express, 1311 North Cass Street, Wabash, IN. Phone 260-569-1189. \$95 + tax  
Knights Inn, 1950 S Wabash Street, Wabash, IN. Phone 260-563-7451. \$68 + tax  
Knights Inn, 2661 S Business 31, Peru, IN. Phone 765-472-3971. \$55 + tax

## **Registration and Meals**

Registration cost is \$5.00 per family  
Meals will be catered. Wednesday night we will enjoy a hog roast with all the trimmings at Full Circle Farm (close to Doud Orchard). Thursday lunch will consist of sandwiches at Countyline Orchard. Sign up and payment (nominal charge) is required at time of registration.

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## **Indiana Horticultural Congress**

The Hort Congress will be held January 18-20 at the Wyndham Hotel in Indianapolis. If you have a particular topic you would like to be addressed, please let us know so we can tailor the program to fit industry needs. Please contact Peter Hirst ([hirst@purdue.edu](mailto:hirst@purdue.edu), 765-494-1323) with your program ideas.

### **Hort Society dues**

If you haven't paid your dues to the Hort Society for the year, the Society secretary (Peter Hirst) or treasurer (Glen Grabow) would be pleased to accept them at the summer meeting. Dues for the year are \$30.00.

### **Workshop provides hands-on crop diagnostic training**

Purdue University's Mid-Season Diagnostic workshop will help grain farmers identify potential yield-reducing problems in their own fields this growing season.

The workshop will be July 13 at the Purdue Agronomy Center for Research and Education in West Lafayette.

"The workshop is entirely hands-on," said Purdue University agronomist, Corey Gerber. "We will actually be in the fields, getting dirty and showing samples of plant problems and pests so that farmers will retain the information better and not just sit through lectures and look at photos."

The training workshop will help farmers identify insects, weeds and plant diseases in corn, soybeans, forages and small grains, as well as soil fertility and herbicide injury issues. The workshop also will provide ways to deal with these problems and evaluate new and alternative management strategies.

All workshop participants will be awarded Continuing Education Units for certified crop advisers and/or Continuing Certification Hours for Indiana Commercial Pesticide Applicators.

Enrollment is limited to 60 people per day. The cost is \$100 per person and includes lunch. In the event of over enrollment, priority will be given to paid registrants.

Registration begins at 8 a.m. and the program will conclude by 4:30 p.m. For more information, contact Corey Gerber at 765-494-3755, [gerberc@purdue.edu](mailto:gerberc@purdue.edu).

The Purdue Agronomy Center for Research and Education is at 4540 U.S. 52 West.

## **Washington Expected to Ship 13 to 14 Million Boxes of Cherries**

Between 13 and 14 million boxes will likely ship from Washington this season, said B.J. Thurlby, president of the Wenatchee, Wash.-based Northwest Cherry Growers.

That's down from initial estimates of 16 to 18 million boxes, but Thurlby still characterizes the 2010 deal as a full crop.

"We've got two-and-a-half months of cherries to pick," he said. "There's a good crop on the trees."

Eric Patrick, Yakima, Wash.-based marketing director for Grant J. Hunt Co., Oakland, Calif., agreed with the 13 to 14 million box forecast.

Bob Mast, vice president of marketing for Columbia Marketing International Corp., Wenatchee, put the industry estimate slightly lower, at 12.5 to 13 million boxes.

With temperatures finally starting to climb the week of June 7, the crop was catching up, and the expected June 26 peak will be only two days later than normal, Thurlby said.

On June 15, the U.S. Department of Agriculture reported prices of \$36-40 for 18-pound cartons of 10-row-size bing cherries from California, comparable to last year at the same time.

Bings would likely peak between June 24 or June 25 and rainiers the first week of July for Columbia Marketing, Mast said. That means that unlike last year, when fruit was late, growers should be able to cash in fully on Fourth of July pull.

"We're looking forward to a good year, one that works for both retailers and growers," he said. "Last year growers had a tough year."

Patrick also was optimistic about cashing in on holiday sales this year, and said demand was strong in mid-June.

By mid-June, movement was brisk, as retailers planning on California product for their ads found themselves looking to Washington instead, Mast said.

"There's pretty strong demand right out of the gate," he said. "Retailers are looking north earlier than usual. California is not panning out as many had hoped."

California's late start had Washington growers worried about overlap, but by early June it looked like the Golden State would wrap up by June 20, almost a full week before Washington hits its peak, Thurlby said.

Despite the cool, wet May, Mast reported good quality June 14, with sizes likely to peak on 10s and 10 1/2s on bings.

Early Chelans were peaking on 10s and 10 1/2s, with more 9 1/2s than usual, Patrick said. He expected to see continued larger sizing on Bings shipping in June. (from The Packer Daily)

## **Food prices up 69% over last 8 years**

Although international prices of many key food staples have dropped during the first five months of 2010, prices in the meat sector have risen sharply, primarily due to declines in production while consumption is increasing, according to the latest edition of the Food and Agriculture Organization of the United Nation's (F.A.O.'s) biannual Food Outlook report just released.

The F.A.O. Food Price Index averaged 164 points in May, down from 174 points in January and substantially less than its peak of 214 in the spring of 2008, the report states. A decrease in international prices of cereals and sugar were among the main drivers behind this decline. Sugar prices have decreased by half from their peak at the beginning of the year under prospects of significant production increases.

But the cost of the typical food commodity basket around the world today is approximately 69% higher than in 2002-04.

Despite price decreases, the global cost of imported foodstuffs is set to reach \$921 billion in 2010, some \$100 billion — or 11% more than in 2009 — but still short of the record mark of \$1 trillion set in 2008, when the food price crisis was at its peak. Much of the anticipated increase will be fuelled by higher expenditures on non-cereal products, which could rise by as much as 17%, to \$650 billion, or around two-thirds of global food import expenditures, according to the F.A.O.

Dairy products, vegetable oils and sugar are among the foodstuffs expected to drive bills higher, through a combination of higher import volumes and prices. Expenditures on these imported commodities are forecast to surpass or near the record levels witnessed in 2008.

Rising freight costs are another factor spurring food import bills, according to the Food Outlook report. Indicators of freight rate movements are running around 75% higher so far this year compared to 2009.

Sugar prices have plummeted by half from their peak at the beginning of the year — they reached a 30-year high average of \$583/tonne in January — under prospects of significant production increases. The drop for cereals has been more modest, around 10%, but the expectation of another good season ahead could put further downward pressure on prices.

Oilseed prices have so far resisted a major downturn, as demand remains strong and supply somewhat tighter than in the case of cereals. But early indications suggest that oilseed prices may decline in the coming months as supply responds to high prices to ease the current tightness.

The fish sector is benefiting from some revival in demand, but, especially, of limitations on supplies. The market for Atlantic salmon remains particularly tight because of unfavorable supply developments in Chile resulting from disease outbreaks in that country's aquaculture sector.

Poor prospects for milk production in important dairy exporting countries, against a backdrop of brisk import demand, are underpinning firm international dairy prices, the report concluded. (Source: FAO Report)

## **Polyphenols from fruit juices absorbed into blood stream**

Polyphenols can be absorbed into the blood stream when consumed from a beverage, showing the potential to deliver the antioxidants via a juice, says a new study from Coca-Cola.

Compounds from a range of sources, including green tea, apples, grapes, and citrus were absorbed in both the small and large intestine when consumed by human volunteers, according to findings published in *Molecular Nutrition & Food Research*.

Interestingly, there was no evidence of any major interactions between the various polyphenols, said the researchers, showing that the results are “*transferable to other specific combinations in beverages, allowing us to conclude that polyphenol-rich drinks may, in principle, be explored as a convenient vehicle to deliver a blend of potentially protective polyphenols and flavonoids into the diet without major changes in eating habits*”, wrote the researchers. (Source: CAST)

## **Study questions safety of UV-treated, HFCS-sweetened juices**

Scientists have questioned the safety of UV-treated fruit juices containing high fructose syrup (HFCS) in a newly published study.

Writing in *Food Chemistry*, scientists at the Illinois Institute of Technology sought to evaluate the safety of fruit juices that have been subjected to ultra violet light (UV-C) disinfection.

They were particularly concerned that UV-treatment of juices containing HFCS may lead to the formation of furan – a volatile aromatic compound and suspected carcinogen.

A previous study indicating that furan formation during UV-treatment arose from fructose, and not from glucose or sucrose, sparked the concern about the use of HFCS as an additive.

To further explore these findings, the scientists examined specially prepared juices containing different sugars and two real commercial juices – an apple juice and an apple cider.

In line with the conclusions of the previous study, the Illinois scientists found that fructose is the main constituent of fruit juice that is responsible for furan formation.

In simulated juices prepared using HFCS, the scientists recorded significant levels of furan although the results varied significantly depending on the pH.

The researchers found that furan formation was promoted at acidic pH and suppressed in the presence of ascorbic acid.

In conclusion, the scientists said: “*Inclusion of HFCS in fruit juice induces formation of furan upon exposure to UV-C radiation and, as a result, HFCS is not a safe additive.*” (Source: [beveragedaily.com](http://beveragedaily.com))

## **Benefits of GMO crops 'substantial'**

"Genetic engineering could potentially be used in more crops, in novel ways beyond herbicide and insect resistance, for a greater diversity of purposes."

The widespread adoption of genetically engineered crops by U.S. farmers has brought "substantial net environmental and economic benefits compared to conventional crops," according to new report from the National Academies.

"Studies show that when best management practices are implemented, GE crops have been effective at reducing pest problems, with economic and environmental benefits to farmers," the Committee on the Impact of Biotechnology on Farm-Level Economics and Sustainability" concluded.

The National Academies, advisors to the nation on science, engineering, and medicine, includes the National Academy of Sciences, the National Academy of Engineering, the Institute of Medicine, and the National Research Council.

Further, the study, the first comprehensive assessment of the effects of the GE crops revolution on farmland sustainability in terms of environmental, economic, and social impacts on both farms that adopt the crops and those that do not, says, "Genetic engineering could potentially be used in more crops, in novel ways beyond herbicide and insect resistance, for a greater diversity of purposes. For example, GE crops could help address global food insecurity through the development of plants with improved nutritional qualities or resilience to a changing climate."

It details the challenges and opportunities for future GE crops and offers recommendations on how crop management practices and future research and development efforts can help to realize the full potential of genetic engineering.

Since their introduction in 1996, GE crops have been rapidly adopted by farmers in the U.S. and in 2009 accounted for more than 80 percent of soybean, corn, and cotton acres.

Despite persistent and noisy opposition to the new technology by various activist groups, evidence — scientific evidence — has continued to show the environmental benefits of GE crops over previous herbicide-dominant farming regimes.

The new report notes, "Given that runoff from agriculture is the largest source of water pollution in the U.S., this could represent the largest single environmental benefit."

Targeting specific pests with Bt toxins in corn and cotton "has been successful and insecticide use has decreased with the adoption of insect resistant crops," the report says. "More effective management of weeds and insects also means farmers may not have to apply insecticides or till for weeds as often, translating into lower expenditures for pesticides and less labor and fuel for equipment operations."

And, farmers and their employees not only face reduced exposure to the harsh chemicals found in earlier herbicides and insecticides, but "also spend less time in the field applying" the materials.

The chief concern raised in the report is that of increasing resistance of several weeds to

glyphosate, the herbicide widely used in GE crop production.

These crops could lose much of their effectiveness unless farmers also use other proven weed and insect management practices, the report says.

Public and private research institutions "should allocate sufficient resources" to monitor and assess the environmental, economic, and social effects of biotechnology on U.S. agriculture to facilitate informed decisions, the report says.

### **MANA, EPA Agree To Voluntary Plan On Endosulfan**

Following the EPA announcement that it is taking action to end all uses of the insecticide endosulfan in the U.S., Makhteshim Agan of North America (MANA), the manufacturer of endosulfan announced the reasons behind its voluntary participation in the plan to withdraw endosulfan over time.

"From a scientific standpoint, MANA continues to disagree fundamentally with EPA's conclusions regarding endosulfan and believes that key uses are still eligible for re-registration," said Scott Rawlins, MANA director of global governmental and industry relations. "The Agency has made a number of overly conservative and unrealistic assumptions about how endosulfan is used that do not reflect the best available science.

"However, given the fact that the endosulfan market is quite small and the cost of developing and submitting additional data high, we have decided to voluntarily negotiate an agreement with EPA that provides growers with an adequate time frame to find alternatives for the damaging insect pests currently controlled by endosulfan," Rawlins said.

MANA and EPA are currently working on details of a plan which will phase out the use of endosulfan over time while giving growers options for moving toward other pest control practices.

Endosulfan was first registered in the 1950s. MANA is the exclusive marketer of two formulations of endosulfan under the brand names Thionex 3EC and Thionex 50W and is used to control insect pests on vegetable, fruit, and cotton crops.

Details of the final timetable for Thionex will be announced to producer organizations and agricultural product retailers in the coming weeks.

(Source: MANA news release)