

Pa. Vegetable Conference

(Continued from Page A1)

The vast majority of the research dollars go to Penn State University. In the past four years, the University has received approximately \$100,000 in checkoff monies to fund vegetable research. An additional \$10,000 to \$12,000 of checkoff funds went toward research at several out-of-state universities.

"A lot of things we do every day are results (of research)," Mason told growers attending the conference. "We really need everybody. We need your neighbors."

Association leaders believe the current checkoff is unpopular with growers. But when asked to offer an opinion about the program's merit or to ask questions, conference goers remained silent. They did, however, receive a questionnaire assessing their support for the program and requesting suggestions for improvement.

Later this year, growers will vote on whether or not to continue the checkoff program and will decide if they want to earmark some funds for promotion programs.

Among those campaigning for the checkoff program was Charles Krueger, associate director of the Pennsylvania Agricultural Experiment Station at Penn State University. The checkoff program is a key ingredient for funding vegetable research at the University and has allowed researchers there to initiate or continue 23 programs, he said.

Even so, the checkoff funds are just a drop in the bucket of research finances, representing just 6 percent of the total. The University receives the majority of its research funds from federal and state government grants.

But although they fund only a small percentage of the research, growers, through the advisory board, are able to determine the direction of research projects. To Krueger, this power, in addition to the research results, is the checkoff program's real benefit for large and small vegetable growers alike.

The conference also included numerous educational sessions for vegetable growers. Sharad Phatak, a horticulture professor at the University of Georgia, was among the experts presenting vegetable research results.

Phatak's research focused on the effect of different methods of preplant tillage on crop yield. The research showed that moldboard plow tillage provided the highest volume of non-compacted seedbed, while disc harrowing offered the least volume.

Soil compaction caused by preparing seedbeds with a disc created a lot of problems in plant

growth and development, Phatak said. To achieve the highest crop yields, he recommends that growers prepare seedbeds with the moldboard and avoid using a disc.

With optimum economic yields the objective of crop farmers, an effective fertilizer program is also important, Phatak said. The first step to an efficient program is a soil test, followed by using the right kinds of fertilizer in the right amount and at the right time. In short, a successful fertilizer program requires a lot of effort, he said.

Plant analysis to monitor nutrient levels in vegetable crops is another tool available to growers who want an efficient fertilizer program. Phatak's research used plant analysis to monitor nutrient levels in vegetable crops grown under center pivots and to study nutrient uptake following fertilizer applications through irrigation systems.

Researchers applied nitrogen, phosphorus and potassium through irrigation systems, with nitrogen and phosphorus applied in the first two weeks of planting and nitrogen and potassium administered during weeks three to six.

Plant analysis showed inadequate amounts of magnesium, sulfur and boron present in the vegetables, even though the nutrients were abundant in the soil. The results, Phatak said, indicated that the added nitrogen and potassium stimulated plant growth so much that the roots were unable to absorb enough of the other nutrients to keep up with the rapid growth rate.

Therefore, subsequent fertilizer programs included applications of magnesium, sulfur and boron, along with calcium for selected crops such as watermelons and tomatoes.

Phatak said success of the soil test and plant analysis monitoring was evident in the high yields of most vegetable crops grown under center pivots and other irrigated research plots.



Receiving awards at the Tomato Awards Luncheon held in Hershey this week were, from left, Dio Shetler, James Weaver, John Everitt (accepting award for John Lapp), Ronald Snyder and Larry Dotterer.

Five Pa. Tomato Growers Earn Production Awards

HERSHEY — Five Pennsylvania tomato growers were recognized for their high tomato production and record keeping practices during the annual tomato awards luncheon, held at the Hershey Convention Center this week in conjunction with the 1987 Pennsylvania Vegetable Conference.

Weaver Farms of Middleburg won the award for the highest tomato yield in machine harvest competition for growers with 50 to 74 acres. Weaver Farms harvested 1,302 tons of usable fruit for Furman Foods from 63.5 acres for a 20.5 ton per acre average yield.

Weaver Farms follows a five-year rotation, with tomatoes following an alfalfa-grass mixture and planted in the same field for two years. They applied lime at the rate of 1.5 ton per acre prior to planting and followed the lime with an application of liquid cow manure at a rate of 20 tons per

acre. The tomatoes were cultivated and sidedressed once with 300 pounds of either 8-24-8 or 10-20-10 according to soil test recommendations.

Larry Dotterer of Mill Hall topped the machine harvest competition for growers with 20 to 49 acres. Dotterer harvested 1,135 tons of usable fruit for Furman Foods from 43 acres for a 26.4 ton per acre average yield.

He planted transplants from May 5 to May 28 at a population of 8,400 plants per acre. Plants were spaced at 12 inches in the row and 5 feet between rows.

Dotterer anticipates a four-year rotation and the tomatoes followed a corn crop in 1986. Following recommendations from Penn State soil tests, he applied no lime and 15,000 gallons per acre of liquid cattle manure and no fertilizer on one field. The other field received 100 pounds of nitrogen and 150

pounds per acre potassium broadcast and plowed down.

Dio Shetler, Turbotville, won the award for the highest tomato yield in hand harvest competition for growers with 25 to 49 acres. He harvested 720 tons of usable fruit for Furman Foods from 25.4 acres for a 28.3 ton per acre average yield.

He planted transplants from May 12 to June 3 at a population of 10,547 plants per acre. Plants were spaced at 9 inches in the row and 5.5 feet between rows.

Shetler followed a three-year rotation. Tomatoes follow a hay crop and are followed by wheat, then hay. His fields are located at a high elevation, have good drainage with no frost or fog pockets and are mainly shaley soils.

He applied lime at the rate of 1 ton per acre prior to planting and followed it with a broadcast application of 10-20-10 at a rate of 1,000 pounds per acre. The tomatoes were sidedressed twice for a total application of 350 pounds per acre of 11-22-22.

Ronald and Charles Snyder of Kempton topped the hand harvest competition for growers with 15 to 24 acres. The Snyders harvested 737 tons of tomatoes on 23 acres for a 32 ton per acre average yield.

They planted transplants from May 5 through June 5 at a population of 11,000 plants per acre. Yield of the later planting dates was lower due to persistent wet weather. Plants were spaced at 16 to 28 inches in the row and 34 inches between rows without beds.

The Snyders plant tomatoes in a three-year rotation following plowdown of a timothy-clover sod. Lime and fertilizer are applied according to soil tests. Their fields required no lime and 125 pounds of N-P-K prior to planting. Some manure was also applied.

John K. Lapp of Allenwood won the award for the highest tomato yield in hand harvest competition for growers with five to 14 acres. Lapp harvested 186 tons of tomatoes on 5 acres for a 37.2 ton per acre average yield.

Lapp planted transplants on May 16, 19 and 26 at a population of 7,800 plants per acre. Plant spacing was 19 inches in the row and 42 inches between rows.

Tomatoes are planted in a three-year rotation following field corn. In 1986, Lapp did not apply any lime, but prior to planting 10 tons per acre of cattle manure and 800 pounds per acre of 8-24-8 was broadcast and incorporated. In addition, Lapp made two foliar applications at 5 pounds per acre.

The State Champion Tomato Growers' Club is sponsored by Penn State University Cooperative Extension Service and Furman Foods, Northumberland.

Stored Corn Reaches 129.5 Million Bushels

HARRISBURG — Pennsylvania corn stored in all positions on Dec. 1, 1986 was 129.5 million bushels according to the Pennsylvania Agricultural Statistics Service. On-farm corn stocks amounted to 120 million bushels, while off-farm stocks were 9.5 million bushels. Wheat stored off-farms totaled 4.5 million bushels and soybeans stored off-farms totaled 400,000 bushels.

Pennsylvania's on-farm stocks of wheat and soybeans are no

longer published separately, but instead are included with an unallocated national total. The reference dates for grain stocks have been changed from Jan. 1, April 1, June 1 and Sept. 1 to Dec. 1, March 1, June 1 and Sept. 1.

On Dec. 1, 1986 there were 329 off-farm storage facilities (mills, elevators, warehouses, terminals and processors) with a total grain storage capacity of 34.4 million bushels.

The Agricultural Statistics Service publishes on-farm grain storage capacity data annually for selected states and the United States. The published data are indications computed directly from the survey and as such, are subject to sampling error fluctuations. On-farm grain storage capacity for Pennsylvania totaled 217.6 million bushels. Chances are two out of three that this capacity may fluctuate by as much as 5.5 percent.

Winter's Icy Touch Transforms A Stream



Photo By Barbara Miller

Intricate ice crystals, resembling a field of daisies in a summer meadow, add a touch of winter beauty to Beaver Run near Lairdsville, Lycoming County.

Potato Stocks

Drop 16 Percent

HARRISBURG — Total stocks of potatoes stored in Pennsylvania on January 1, 1987 were 2,800,000 hundredweight, 16 percent less than a year ago according to the Pennsylvania Agricultural Statistics Service. Of this amount, 915,000 cwt. was stored in processors' facilities, representing 33 percent of the total stocks.

Stocks are defined as the quantity remaining in storage for all purposes and uses, including shrinkage and waste and other losses that occur after the date of each report. Sales of fall potatoes for all purposes generally account for about 90 percent of the total fall production. Shrinkage, loss and home use account for the remaining ten percent.