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Crop Reports

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Northeast OH

Finding a combination of imported cabbage worm and diamond back moth larvae in cole crops in numbers high enough to treat. Flea beetles are also beginning to infest cole crops. The main problem that we have had in tomatoes up to this point has been heat. Whether it is in greenhouses where they wait to be planted or under row covers in the field, temperatures were getting high enough to cause either leaf curl, or in some instance complete death of the plant (under row cover).

Same thing for melons under row covers.

More sweet corn went into the ground during our few days of dry weather. Flea beetles have generally been found on less than 5% of the corn plants. Asparagus beetles were found on both spears and ferns. Bean leaf beetle is also in the area (although being found in alfalfa and emerged soybeans).

SOUTHWEST OH

Planting of bell and hot peppers and is in full swing. Planting of tomatoes, direct seeding squash and cukes continues. Plasticulture strawberry harvest is going into our second week. Cucumber beetles are beginning to make their presence known in vine crops. Cultivation and sidedressing of sweet corn. Spraying has begun for bean beetle on green beans and half runners. Scouting cabbage and collard and kale fields yesterday there has been some feeding damage on the oldest leaves, but no insects were observed, the grower had recently sprayed. Staking and tying of tomatoes continues with early planted tomatoes having their first clusters of tomatoes set. Planting of pumpkins had begun and planting of sweet corn continues. Rains have just come into the area since Monday night, lots of field work was accomplished in the past 10 days.

CENTRAL OH

Strawberry harvest began last weekend in a few locations. Regular berry harvest at many locations will begin in about 10 days if warm weather persists.

Early sweet corn plantings at several locations look good and some early plantings survived the several frosts. Plant stands in late April planted SE corn trials look nearly 100%. Plastic corn is about 2 feet high.

In the first few weeks of May there was widespread transplanting of tomatoes, pepper, muskmelons, watermelon and summer squash. With warm days and nights, plants have taken off rapidly and look good. Typical attacks from cucumber beetles have occurred but the usual protective measures have been effective.

#### Short Row for Biotech Vegetable Crops

[The following are selected excerpts from various articles: The New York Times, May 20, 2004 and California Agriculture. See the Source list at the end of the article, Bob Precheur]

David Tricoli used genetic engineering to create a virus resistant melon but the company, Seminis, dropped the melon project and most of its other work on biotech vegetables because of the high costs of obtaining regulatory approval and perceived consumer resistance. There are things growers need and want but are just too difficult to get them out said Mr. Tricoli.

Agricultural biotechnology continues to spread in the USA and worldwide but the extent biotechnology is growing is in a narrow range. Ninety nine percent of the crops are grown in just 6 countries and virtually all the worldwide acreage is devoted to only four crops: soybeans, corn, cotton and canola.

Recent attempts to move genetic engineering to other crops has met resistance or at least fear by food companies and farmers that consumers will balk. And experts say, the time and money involved in clearing regulatory hurdles make it uneconomical to apply biotechnology to any but the most widely grown crops.. The April-June 2004 issue of California Agriculture magazine laments a sharp falloff in efforts to develop genetically engineered fruits and vegetables. The number of field trials in the US involving biotech fruit and vegetables has plummeted to about 20 in 2003 from about 120 in 1999 said California Agriculture.

The difficulty that new gene altered crops have is that food companies and farmers are reluctant to risk losing even a little bit of market share or attracting protests. Virus resistant biotech potatoes were taken off the market by Monsanto after big potato processors and fast food companies told growers they did not want them. Lettuce growers in CA balked at the introduction of Roundup Ready lettuce said K. J. Bradford, vegetable crops professor at Davis. A. McHughen, a plant biotechnologist at the Univ. of CA says in California Agriculture that some companies budget \$50 million above what they spend on a conventional crop to bring biotech seed to market, given the health and environmental tests required. The entire market for Iceberg lettuce seeds is \$27 million a year, they write, which is why it may be difficult to develop transgenic lettuce.

Some experts say the biotechnology companies must develop crops that offer more for consumers and food companies and not just the farmer. Julian M. Alston writes in an article Horticultural biotechnology faces significant economic and market barriers in California Agriculture that the latest wave of technological change in agriculture is based in molecular biology. Will horticulture participate? High costs for research, development and regulatory approval combined with the small

acres planted and the diversity of varieties will limit the potential for profitable applications of biotechnology to many fruits and vegetables, tree fruits, nuts and nursery crops. In another research article, Despite benefits, commercialization of transgenic horticultural crops lags, David Clark et al points out that commercialization is stalled by market reluctance to accept biotech products, particularly in the absence of clear benefits to consumers. High regulatory costs and restricted access to intellectual property create additional hurdles for specialty crops.

Jennifer James in her article Consumer knowledge and acceptance of agricultural biotechnology vary comes to three main conclusions. First, consumers do not agree about whether biotech foods are good or bad. Second, a small group of people strongly oppose them. Third, the majority of consumers are uninformed about the technology and how food is produced. Small anti-groups are successful in influencing public opinion.

Sources:

Narrow Path for New Biotech Food Crops by Andrew M. Pollack. The New York Times. Thursday, May 20, 2004. pp C1, C6.

Fruits of biotechnology struggle to emerge. California Agriculture, April-June 2004. Volume 58, Number 2

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