Tariff retention, mechanical harvesting seminars hit home at Citrus Expo

By Ernie Neff

Citrus Expo planners smiled Aug. 27 when Expo speaker Tristan Chapman, a Florida citrus commissioner, summed up the key issues facing Florida’s citrus industry. “Second only to maintaining the tariff, effective mechanical harvesting is our most important program to guarantee the future of Florida citrus,” said Chapman, vice president and general manager of Southern Gardens Citrus Processing.

Chapman confirmed what the planners banked on when establishing the Expo program — that tariff retention and mechanical harvesting were giant issues for Florida growers. As usual, Program Committee Chairman Norman Todd and his cohorts had their fingers squarely on the pulse of the Florida industry.

This year’s Expo lived up to expectations, according to Mariann Holland, chair of the Expo Steering Committee and publisher of Citrus Industry Magazine. “Our 12th Citrus Expo upheld the tradition of being the premier event for citrus growers,” Holland said. “The trade show featured more exhibitors than ever, and the seminars had a clear focus on improving citrus production in the future. Our banquet speaker, Congressman Adam Putnam, made a call for unity in the fight to retain the tariff. He reminded us there may not be a future, otherwise.”

Brief summaries of the Citrus Expo presentations on the fight to retain the tariff and mechanical harvesting follow.

Share unity and never let up in the fight to retain the tariff on imported citrus products, Expo speakers urged growers.

Congressman Adam Putnam, addressing the Gulf Citrus Expo Banquet Aug. 27, asked growers to make sure all fellow citrus producers are helping fund the tariff retention battle.

Others carried the tariff retention flag into the Expo Seminar Hall the next day. Bill Paxon, senior advisor with the Washington-based Akin Gump firm hired by the Florida industry to lead the tariff fight, also exhorted growers to stand united. “The forces that be in Washington will take advantage of any fracturing of that unity,” the former congressman declared.

Paxon said growers can greatly help the tariff retention battle by constantly telling the news media and others about the need for the tariff. “If the tariff goes, the industry goes; let’s say it again and again. Eventually the message will be received.” Paxon said even grower quotes in weekly newspapers in Florida wind up on the desks of those negotiating tariffs during international trade talks.

Paxon asked growers to repeatedly thank the politicians who make tariff retention a key issue. “There’s 100 people coming to them every day with things for them to do,” he explained.

Andy LaVigne, CEO of Florida Citrus Mutual, said everyone with a stake in the citrus industry must push for and help fund the tariff retention effort. “Growers and allied businesses must support and commit to the tariff fight,” he said.

Think you’ve ‘seen it all’ when it comes to mechanical harvesting of citrus?

According to experts who’ve studied the development of harvesting devices for other crops, you probably haven’t.

“What you see today is not where you’re going to be 10-15 years from now,” Jim Thompson told a Citrus Expo audience. Thompson, with the Biological Agricultural Engineering Department at the University of California-Davis, talked about changes in the mechanical harvesting of California processed tomatoes.

In 1950, California researchers began work on a mechanical harvester and a new breed of tomato that would work well with the device. Thompson said. A harvester was developed by 1960 and mechanical harvesting was dominant in tomato fields by the late 1960s. The harvester picks up the plant and tomatoes and shakes the tomatoes off.

More changes were made. “The development took about 30 years,” Thompson said. Benefits of mechanical harvesting include the ability to harvest 24 hours a day and improved tomato quality because the fruit gets to the processing plant more quickly. Harvest labor costs dropped from 50 percent of production costs to 12 percent, and...
the amount of labor time required for harvest was cut more than 90 percent.

Thompson said mechanical harvesting also has been good for workers because machine operators make 20-40 percent more per hour than field laborers, who on average earn $7,000 a year.

Since the beginning of mechanical harvesting of California tomatoes, the number of growers has dropped from 1,000 in the 1960s to 250 now, Thompson added. During the same time, average tomato farm acreage rose from 65 to 600.

Tomato production costs have decreased significantly and allowed the California tomato industry to remain globally competitive, Thompson said. "Without mechanical harvesting, I don't believe that would be the case."

Thompson said if Florida citrus follows the California tomato model, in the year 2020 it will be a competitive, more efficient industry with fewer growers and larger groves.

**CHERRIES**

Mechanical harvesting of tart and sweet cherries in Michigan began with limb shakers in the early 1960s, said Jim Nugent, district horticulturist at Michigan State University. Nugent, also coordinator of the Northwest Michigan Horticultural Research Station, said trunk shakers replaced the limb shakers in the 1970s.

Cherry growers removed the lower limbs from their trees and developed taller trunks to accommodate the trunk shakers, Nugent said. Similar measures are recommended for the use of trunk shakers in Florida citrus.

According to Nugent, early trunk shakers damaged tree bark. Borers and insects moved into the trees where the injury occurred, cutting orchard life from 35 years to 25 years. Today's longer tree trunks and improved shaker design have almost eliminated the problem, he said. Average tree life has risen to 30 years, and Nugent said trees planted since the mid-1980s will likely have a 35-year life expectancy, like in the old days.

Over the short term, yields were reduced because of the removal of lower tree limbs, but growers soon got record cherry yields, Nugent reported.

**PICKING CITRUS**

Like cherry trees, Florida citrus trees with skirts pruned to accommodate trunk shaker harvesting devices have initial yield reductions that rebound in following years, a Florida harvester reported. Will Elliott, general manager of Coe-Collier Citrus Harvesting, LLP at Immokalee, said over time, yields have been virtually the same whether groves are hand harvested or harvested with trunk shakers.

Elliott said his company looked at yields in several blocks each of Hamilins and Valencias harvested conventionally and with trunk shakers over five years. "From 1998 through 2003 there is no statistical difference in yields between either harvesting method," Elliott said. "Trunk shakers had no effect on yield after five consecutive seasons." He said Florida Gulf Coast University conducted an independent statistical analysis of his company's data.

Processors like mechanical harvesting because it is efficient and keeps fruit off the ground, said Tristan Chapman, vice president and general manager of Southern Gardens Citrus Processing at Clewiston. "There are things on the ground that are undesirable from a food safety standpoint," he declared. "Food safety is a huge issue today in the United States."

Chapman said growers can increase their yields by getting harvested fruit to a processing plant more quickly. "Nothing good happens to the orange from the time it is picked to the time it is processed," he said. He said juice yields can decline several percent if picked fruit sits for 24 hours before processing; even more if it sits 48 hours.

University of Florida agricultural economist Tom Spreen said smaller citrus growers may have difficulty gaining access to mechanical harvesting services. Spreen, chair of the UF-IFAS Food and Resource Economics Department, suggested that harvesting cooperatives may evolve to provide harvesting services for those small producers.

Spreen also envisioned the use of in-grove extractors that would work with mechanical harvesting systems. Such systems might process up to 12 trailers of oranges a day, he said. Money would be saved on transportation because juice, not oranges, would be hauled from the grove to the processing plant. He said such a system might be viable only for large growers with at least a million boxes of fruit, or for a collection of smaller growers.

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