

Orchard Management Key to Top-Quality Pecans

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LAS CRUCES -- To the untrained eye, most of the entries on display for the International Pecan Show at the Las Cruces Hilton March 8-10 looked yummy. But the competition was tough in the 32nd Western Pecan Conference, with judges analyzing qualities important to the commercial industry.

The conference, which drew growers from Arizona, California and Texas as well as New Mexico, also featured the Pecan Food Fantasy baking competition, a pecan trade and equipment show and an educational program that focused on marketing pecans.

Growers participating in the pecan show were required to submit a 40-nut sample for each entry in one of five categories: Western Schley; Wichita; improved varieties other than Western Schley or Wichita; known hybrids; and seedlings and native pecans.

Judges scrutinized characteristics like color, uniformity and kernel percentage. For Western Schley pecans, the kernel should weigh at least 57 percent of the total weight if the sample is going to be a winner. Wichita's kernel weighs in a little heavier, sometimes more than 60 percent.

"The very first thing we look at is the kernel percent, which is the meat that you eat," said Esteban Herrera, pecan conference coordinator and a horticulture specialist with New Mexico State University's [Cooperative Extension Service](#). "We weigh the pecans and then we crack them, shell them, weigh the kernel and figure the percentage."

The judges also look for a golden color, which means good quality, Herrera said. "Then we consider uniformity of size, and of course, the pecans should be free of any blemishes from insects," he said.

This year's "Best of Show" was a sample of nicely colored Wichita pecans from Belding Farms in Fort Stockton, Texas, which tipped the scales at 63.42 percent kernel. Gerald and Mary Tibbs of Derry, N.M., took home grand champion and reserve champion honors in the Western and seedlings categories, respectively.

Pecan growers who strive for such quality must pay close attention to managing water, sunlight and soil nutrients like nitrogen and zinc in their orchards, Herrera said. "To ensure good pecan quality, growers need to conduct the best orchard management practices."

Researchers with NMSU's [Agricultural Experiment Station](#) are doing a number of orchard management studies.

"In one study, we are monitoring growers' actual management practices in 15 orchards in the Mesilla Valley," Herrera said. "We're comparing different soil types, tree densities and water management practices with leaf analysis, soil analysis and yields to see what program is most successful."

The scientists are also trying to develop pecan fertilizer recommendations for New Mexico by tracking a special marked nitrogen as it moves from the soil to the trees and nuts. "There is a debate about whether nitrogen applied this year is really used this year or if it is stored in the tree until next year," Herrera said. "We'll be able to figure this out by tracing where the nitrogen is going."

In another effort, Herrera said researchers are looking at how much sunlight reaches trees in pecan orchards. "We have seen that yields and quality go up with better sunlight penetration," he said.

One study is looking at sunlight penetration before and after removing 50 percent of the trees in an orchard, while another considers how far to prune trees to permit sunlight to reach their trunks.

Much of NMSU's pecan research is part of the Western Irrigated Pecan Initiative, funded by the U.S. Department of Agriculture.

As results from the studies emerge, NMSU scientists are hoping to help growers produce more prize-winning pecans.
