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Photo/Vicky Boyd

Macadamia nut farmer Dan Hecko, manager of the Gold Crown Macadamia Association in San Diego County, inspects macadamias before they go into a low-heat dryer for moisture removal.

Macadamia nut farmers aided by South State co-op

By Vicky Boyd

Tom Rastle and his wife, Bobbi, happened upon macadamia nuts serendipitously when deciding what to plant on ground they purchased near Escondido in San Diego County that had grown lemons and, before that, avocados.

"This property was originally in avocados, and they root rotted out," Tom Rastle said. "Then they put in lemons, and they fungused out. I thought about planting eucalyptus for firewood, but what happens if I got 500 trees and they got ahead of me?"

Not only do the evergreen macadamia trees produce an in-demand crop, but they also provide the Rastles with solitude.

"It's nice in that for me, much of my life is doing what other people want on their time lines. Practicing medicine is very demanding," said Tom Rastle, a family physician. "The grove is serene. It's very peaceful and good for my soul, and it's part of my exercise routine."

Dan Hecko, who grows macadamias near Escondido, had a similar experience and also chose nuts over eucalyptus. Originally, he was considering avocados, but a chance encounter at a county fair where the California Macadamia Society had a booth changed his mind.

The Rastles and Hecko are among the Southern California growers producing macadamia nuts for niche markets. While they're more likely to talk about their plantings

in terms of tree numbers rather than acres, they nonetheless share a passion for the tropical crop.

Many of the producers market their crop through the Escondido-based Gold Crown Macadamia Association, a grower-owned cooperative with members from Santa Barbara south to the Mexican border. The organization was founded in 1971, and Hecko stepped in to run it in the mid-1990s when the previous manager left.

The co-op does no processing and sells everything in the shell. Members send in their husked, air-dried inshell nuts, which are about 20% moisture, and Hecko dries them to between 1% and 5% moisture using dryer systems and flow-through racks he built.

The process takes about 48 hours, and Hecko monitors the temperature, trying to keep it at about 102 degrees Fahrenheit.

"What we do is take over from what Mother Nature started, and we continue to dry with low heat, just like Mother Nature would do, to the point where they won't go bad," he said. "Overdrying isn't an issue; cooking is an issue."

As long as the nuts remain in their shells, they can be stored for a couple of years in a cool, dry place without loss of quality.

The co-op has its own set of quality standards. Before drying a shipment, Hecko

See NUTS, Page 8

Nuts

Continued from Page 7

takes a sample of 20 nuts, weighs them and shells them to determine crack-out percentage. Most macadamia nuts average about 35% kernel and 65% shell, but he's seen as high as a 44% crack-out. Hecko said he won't take anything less than 28% kernel.

In addition, drying allows the nuts to be marketed throughout the year. Hecko credits Mirna Solis, who handles all sales, with developing a strong customer base throughout the United States and into Canada.

"We sell inshell nuts that people want because of the flavor and the nutrition," Hecko said. "People have written about macadamia nuts being heart healthy. That's where we get most of our sales."

As a result, he said co-op members receive significantly more for their inshell crop than Hawaiian and South African growers receive for their shelled kernels.

Three species of macadamias are grown commercially for edible nuts, with *Macadamia tetraphylla* primarily cultivated in California because of its slightly better cold tolerance.

Records show macadamia trees have been planted in California as far back as the late 1880s. But they weren't commercialized until the 1940s when



Photos/Vicky Boyd

a Vista nursery began promoting them as replacements for avocados that had succumbed to phytophthora root rot.

Of the available cultivars, Cate is the most widely planted in the state because of its thin shell, coveted flavor and tough compact tree.

As tropical species, macadamia trees require about as much water as avocados. That, and the hand labor involved in harvesting, husking and drying the nuts, may limit potential industry expansion, said Gary Bender, University of California Cooperative

Extension farm advisor emeritus for San Diego County.

"Especially here in San Diego County, water is expensive," he said. "When you start looking at the cost of water and all of the hand labor that's involved, that's what limits it. I always wanted it to be a bigger industry."

Rastle said he went with the Cate variety because it is smaller than Beaumont, another variety. In addition, Cate has a four-month harvest window whereas Beaumont nuts mature year-round. With wide-ranging nut maturity, shaking macadamia trees like they harvest walnuts and almonds would remove immature nuts that had yet to fill as well as mature ones.

Instead, macadamia growers let mature nuts drop to the orchard floor. The Rastles harvest fallen nuts using a Bag-A-Nut, which is similar to implements used to pick up golf balls on the practice range.

They then remove the exterior hull or husk using a small machine and place

Macadamia nuts, produced on evergreen trees, drop to the orchard floor when mature. The nuts have tough shells. It takes about 800 pounds of pressure per square inch to crack one open.



the nuts—which resemble malted milk balls—on shaded racks to air dry for two to three weeks to about 20% moisture. As members of Gold Crown, the Rastles have the co-op further dry and market the crop.

Bender said other growers dry and market their crop themselves. Some even crack the nuts, selling the kernels or using them as a confection ingredient.

Hecko said Gold Crown enjoys strong demand for California-grown macadamia nuts. But the association is still struggling to recover from the pandemic, which halted walk-in customers.

In addition, Hecko said he remains concerned about the future of the industry.

As producers age or sell their groves, he said he worries whether new owners will keep growing macadamias—or subdivide the ground for houses. He is rooting for the macadamias to continue thriving long into the future.

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