

People & Places

Thinking differently with pears

Rudy Prey Jr. goes high density, getting more fruit from smaller trees

By DAN WHEAT
Capital Press

PESHASTIN, Wash. — When people in the Wenatchee Valley think of Prey's Fruit Barn and Orchard they think of its huge U.S. flag that dwarfs everything around it.

It's been a tourist attraction and conversation piece for almost 30 years. It was put up in the early 1990s by the late Rudy Prey Sr. in honor of his receiving U.S. citizenship after he and his family immigrated from West Germany in 1975.

What fewer people realize is that beyond the over-sized, 30-by-50-foot flag, Prey, who died in 2003, and more so his son, Rudy Prey Jr. have been pear industry innovators.

Their orchard is one of the few high-density pear orchards in the Pacific Northwest, and with its own twist. Rudy Prey Jr. ties the tops of pear trees together with twine to form archways over the rows between trees, allowing more sunlight to reach fruit, hastening early yield and sizing of fruit.

"There's less input costs and higher returns, but it's hard to calculate how much higher because of so many variables like weather and variety," Prey said. "The startup costs to plant are higher but they are recovered quicker. So over time it's definitely higher returns."

Keeping trees to no more than 12 feet tall allows the use of shorter ladders and less time on ladders for workers, cutting pruning time in half and increasing picking efficiency. He figures costs are reduced by \$50 per bin while yields increase about 30 percent.

The Preys moved to Peshastin from Kiel, West Germany, when the younger Prey was 10 years old. They had been here on vacation and decided to make it their home.

"At age 42, my dad changed countries, languages and careers. In West Germany, he did cattle and pigs and then built elevators. He came here and took up orcharding because that was the thing to do here," Prey said.

Kiel is flatter country but Peshastin and Leavenworth reminded the Preys of Bavaria.

Higher density

Initially, the orchard was just 30 acres of 125 that was mostly wooded and on moderate to steep hillsides ranging up to a 20 percent grade.



Rudy Prey Jr. in a row of Red d'Anjou pear trees at his Peshastin, Wash., orchard, where he's tied tree tops together for better light interception for the fruit.

Photos by Dan Wheat/Capital Press



A 30-by-50-foot flag flies above Prey's Fruit Barn along U.S. Highway 2, near Peshastin, a couple miles east of Leavenworth, Wash. His father began flying the flag after gaining U.S. citizenship.



Rows of pear trees have their tops tied together for maximum light interception on the fruit in Prey's Orchard, Peshastin, Wash., June 28.

Now there's 75 acres of orchard with 55 to 60 percent high-density, 20 to 25 percent moderate-density and 20 percent low-density.

In 1975, the Preys planted 20-by-10-foot spacing — 20 feet between rows and 10 feet between tree trunks in a row. That was 220 trees per acre, which was double the standards of the time of 20-by-20 and 110 trees per acre or 24-by-24 with 80 per acre.

The Preys tightened their grid with each new block of orchard, getting to 14-by-6 before Prey took over management from his father in 1996.

The younger Prey continued the effort, maxing out at 14-by-1.5 feet and 2,000 trees per acre. Now he's backed off to 14-by-2 or 14-by-2.5 for 1,000 to 1,500 trees per acre because he's found little improvement in yields beyond that to warrant the extra expense of more trees.

Lack of rootstock

Most growers in the valley now plant at 14-by-4 or 14-by-6 for 400 to 800 trees per

acre, Prey said. Movement to high-density has been hampered by the lack of a winter-hardy, dwarfing rootstock for pears.

Dwarfing rootstock would keep trees more compact, decreasing vegetative growth and increasing fruiting wood. Prey tries to do the same, but not quite as well, by fertilizing and pruning less but increasing tree training and bending tops.

Researchers are working on it but as of yet just haven't found the right dwarfing rootstock, said Tim Smith, Washington State University tree fruit specialist emeritus in Wenatchee.

Pears are inherently harder to grow in compact form than apples, Smith said.

Tying tree tops

Prey began tying tree tops together in late 1990s. It was his idea, an adaptation of the V-trellis system used in apples but saving the cost of trellis posts and wire.

At first, he planted trees at 30-degree angles to help form the archway. Stronger-rooted than apple trees and in heavy

soil, the pear trees didn't need trellises for support.

But snow, up to 100 inches a year, flattened the young trees, so now he plants them upright but still ties the tops together.

Tying tree tops together over the rows complements high-density for higher yields.

"When you plant close together, you try to utilize all the space in the orchard you can to intercept light for fruit and foliage," Prey said. "You want to minimize areas shading each other."

He ties tops together when trees are three to four years old, tying back onto two-year-old wood that is stronger than one-year-old and less likely to break.

Prey does it with all his varieties: Concorde, Bartlett, Red and Green d'Anjou, Bosc and Starkrimson. The Concorde variety is a little stiffer and harder to work with. Bartlett is easier.

What others say

"I think he's come up with a pretty good way of growing pears on his property. They sculpted the hillsides



Western Innovator

Rudy Prey Jr.

Age: 52

Born: Kiel, West Germany. Raised there and Peshastin, Wash.

Family: Single

Education: Cascade High School, Leavenworth, Wash., 1984; Wenatchee Valley College, tree fruit program, 1986.

Occupation: Peshastin pear grower and fruit stand owner since 1996.

Work History: After college, worked short time in an Oregon tree fruit nursery and six months in apple orchards in New Zealand.

to make them more plantable and navigable and that's made areas where the trees tend to grow smaller and less vigorously, naturally," Smith said.

It's innovative but growers are not likely to tear out older orchards and replace them with high-density without dwarfing rootstocks, Smith said.

A few miles from Prey's orchard, grower Josh Koempel, 41, has followed Prey's lead of tying tree tops together in high-density plantings for the past eight years.

Koempel is using 10-by-4 or 12-by-4 density, depending on slope. He plants trees upright and in their fourth year ties their tops over in early spring after irrigation loosens the ground. It curves the trees but then the tree tilts, creating a "V".

"Guys love picking in it. It's way more efficient. It's easier to spray," Koempel said. "The tree is only 2.5 feet in width and depth. It creates a fruiting wall like is being done in apples."

There's potential for more bins of fruit per acre with smaller trees, he said. A few growers in Cashmere, Yakima and Wapato are planting high density without tying over tops, he said.

"I'm trying to build on everything Rudy has done. He's the trailblazer on this thing. He's the guy who's made it all happen," Koempel said. "I've spotted a good system for the genetics we have and he's been willing to teach us. He's a heck of a smart guy."

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Correction

The name of Zippy Duvall, president of the American Farm Bureau Federation, was incorrect in a story in last week's print editions of the Capital Press.

The Capital Press regrets the error.

Correction policy

Accuracy is important to Capital Press staff and to our readers.

If you see a misstatement, omission or factual error in a headline, story or photo caption, please call the Capital Press news department at 503-364-4431, or send email to newsroom@capitalpress.com.

We want to publish corrections to set the record straight.

Calendar

To submit an event go to the Community Events calendar on the home page of our website at www.capitalpress.com and click on "Submit an Event." Calendar items can also be mailed to Capital Press, 1400 Broadway St. NE, Salem, OR 97301 or emailed to newsroom@capitalpress.com.

Through Sunday July 30

California State Fair. 10 a.m.-10 p.m. Cal Expo Center, 1600 Exposition Blvd., Sacramento, Calif. Website: www.castatefair.org/

Saturday, July 15

Washington State Sheep Producers Ram and Ewe Sale. 1:30-6 p.m. Grant County Fairgrounds, 3953 Airway Drive NE, Moses Lake, Wash. For questions, call 509-200-2112. Email: wssp@gmx.com

Farm to Table Dinner and Auction. 5:30-9 p.m. Oregon Garden, 879 W. Main St., Silverton, Ore. Guests to this event will savor the flavors of the season with food donated from local farmers picked at the peak of ripeness and prepared by Chef Daryl Gossack at Loustic Catering. Tickets are on sale now at our website or by phone. Through June 17 tickets are \$85 per and \$95 after June 18. The event is presented by Bonaventure Senior Living and all proceeds will feed people in our community through Marion-Polk Food Share. Website: http://bit.ly/2qth9a1

Wednesday, July 19

Community Open House. 4-7

p.m. North Willamette Research and Extension Center, 15210 Mileway Road, Aurora, Ore. Website: http://oregonstate.edu/dept/NWREC/

Tuesday, July 25

Dairy Sheep and Goat Workshop. 9 a.m.-5 p.m. Gooding County Fairgrounds, 203 Lucy Lane, Gooding, Idaho. University of Idaho Extension workshop. Lunch included. The workshop is \$30 with pre-registration until July 21 and \$40 after that.

Friday, July 28

Forest Insect and Disease Field Day. 8 a.m.-5 p.m. Benewah County Fairgrounds, 2330-2398 St. Maries Ave., St. Maries, Idaho. The event will give participants first-hand exposure to a wide range of organisms that impair the growth of trees and forests in Northern Idaho including: Douglas-fir beetle and other bark beetles; Armillaria and other root diseases; white pine blister rust; indian paint fungus, pini rot and other stem decays; and dwarf mistletoes. Experts will help participants identify insect and disease symptoms and discuss practical long- and short-term methods of dealing with them. Those wishing to participate should pre-register at the University of Idaho Extension Office in Benewah County by July 21. A \$10 registration fee covers resource materials and refreshments.

Saturday-Sunday July 29-30

47th Annual Great Oregon Steam-Up. 7 a.m.-6 p.m. Powerland Heritage Park, 3995 Brooklake Road

NE, Brooks, Ore. Packed with vintage power, this annual event celebrates the steam power, machines and people who drove Oregon agriculture, logging, transportation and more from the 1800s through early 1900s. Get up close to the power farm machinery, vintage trucks, antique cars, logging gear and a working steam sawmill. Kids of all ages will enjoy train and trolley rides, daily parade, huge flea market, traditional tractor pulling, machinery demos, threshing and quilt show. This year the featured makes are Aultman-Taylor and Rumely. General admission \$12, children under 12 are free. Website: http://www.antiquepowerland.com/html/steam-up.html

Tuesday-Friday, Aug. 1-4

7th World Congress on Conservation Agriculture. Rosario, Argentina. A world meeting presented by the American Confederation of Farmers Organizations for a Sustainable Agriculture, which began with associations of farmers that promoted the no till system and are currently working to promote sustainable production systems. Website: http://congre-soaapresid.org.ar/

Friday, Aug. 4

9th Annual Friends of Agriculture Golf Tournament. Chehalem Glenn Golf Course, 4501 E. Fernwood Road, Newberg, Ore. The tournament benefits Oregon Aglink, which is dedicated to growing agriculture in Oregon through education and promotion and bridging the gap between urban and rural Oregonians. Contact Mallory Phelan at 503-595-9121 or mallory@aglink.org. Website: www.aglink.org

Left Coast's Run for the Oaks, 8 a.m.-1 p.m. Left Coast Cellars, 4225 N Pacific Highway W, Rickreall, Ore. The course will predominantly be on gravel roads or off-road with trail and paved road segments. The run will meander throughout the Left Coast Cellars estate and runners will pass oak forests, vineyards and gardens with spectacular views of the Willamette Valley. All proceeds from the race, food and wine sales for the day will be devoted to the Oak Savanna Restoration Project. 10K Trail Run: \$60 Start time 9 a.m. 5K Trail Run/Walk: \$50 Start time 9:15 a.m. Registration includes complimentary wine tasting; free Patagonia Capilene T-shirts; finishers receive a GoVino wine glass; music, awards and snacks. Left Coast Cellars has over 100 acres of ecological compensation areas and 70 acres of old growth oak forest. Through time the forest has become populated with invasive species and our goal is to restore the forest to a native oak savanna. We have partnered with the U.S. Fish and Wildlife Service. Website: http://leftcoastcellars.com/

green transportation and natural health. Cost: \$15-50. Website: http://www.motherearthnewsfair.com/oregon/

Wednesday-Saturday Aug. 9-12

Skagit County Fair. 10 a.m.-10 p.m. Skagit County Fairgrounds, 479 W. Taylor St., Mount Vernon, Wash. Website: https://www.skagitcounty.net/Departments/Fair/main.htm

Saturday-Sunday Aug. 5-6

Mother Earth News Fair. 9 a.m.-6 p.m. Linn County Expo, 3700 Knox Bluff Road E., Albany, Ore. The Mother Earth News Fairs are fun-filled, family-oriented sustainable lifestyle events that feature dozens of practical, hands-on demonstrations and workshops from the leading authorities on renewable energy, small-scale agriculture, gardening, green building,

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Friday, Aug. 18-Sunday, Aug. 27

Western Idaho Fair, noon-11 p.m. Western Idaho Fairgrounds, 5610 Glenwood St., Garden City, Idaho. Website: http://www.idaho-fair.com/