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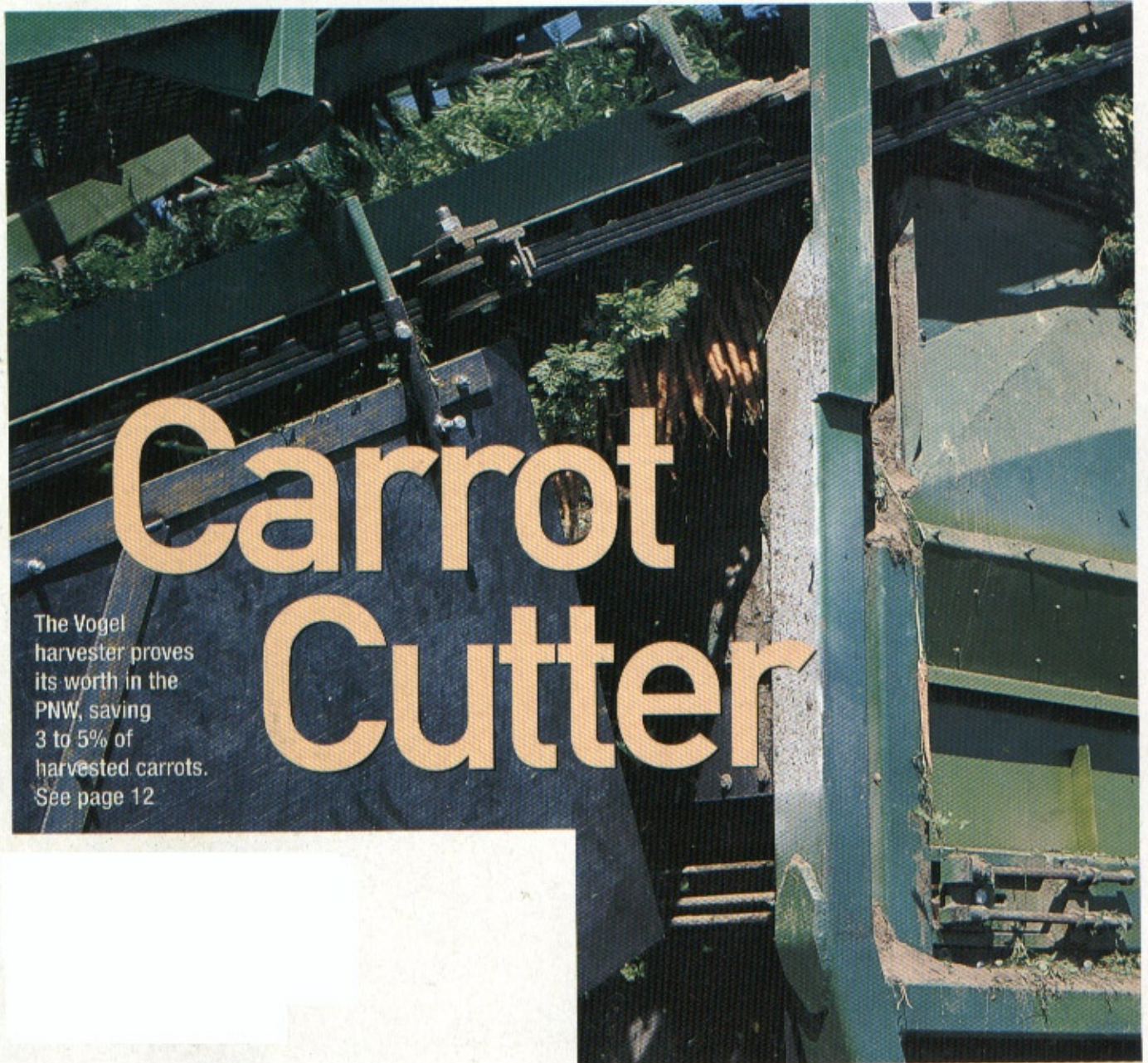
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COVER STORY

Carrot Cutter

The Vogel harvester proves its worth in the PNW, saving 3 to 5% of harvested carrots.

■ *By Meghan Sapp*

A good piece of machinery is much more than speed, but it really attracts your attention when you're standing a quarter mile away in a field, and you realize you have to run to get out of the way of a carrot harvester.

There are a number of good carrot harvesters on the market, most of which are foreign made. But when asked who makes the best harvester for the money, the answer is almost always "Wayne Vogel." It was the Vogel machine that nearly ran me down in the field.

Since 1989, Vogel Engineering of Holton, Mich. has made the only self-propelled carrot harvesters in the United States. Vogel attributes the true genius of the harvester to William Eurschels, who created the first beet harvester in the 1930's and adapted it to harvest carrots. He made the first production carrot harvester that included the roller bar, which takes the carrot tops off during harvesting.

"We all just borrow from his invention," Vogel says, but those who use his machines religiously think that's an understatement. "We're into building quality products for the top farmers in the United States. We care about quality, not price," he says.

Most of the machines he makes are custom hydraulic modifications to ex-

Mercer Ranches in Alderdale, Wash., owns two of Wayne Vogel's custom-made carrot harvesters. Most machines in operation have been in operation for more than 50,000 hours and operate like new.



isting machines for the ag packing industry as well as for the large building and equipment industry.

"Quality hydraulics are engineered to do a specific job, and putting a lot of hydraulics into machines is a result of a lot of years of tinkering," Vogel says. "Hydraulics took the carrot-harvesting industry into the next stage by being able to transmit all of the power into small places with gears and belts."

The purpose of the machine is simple: An operator drives the cab that has an outstretched arm, which goes underneath the soil to push the carrots up. The machine grabs the carrot tops that run up a conveyor belt. At the top of the belt, the tops are cut off and the carrots fall into the truck behind the cab.

Vogel says he builds these machines for serious farmers who need the heavier built, faster machines that can go out and get the job done without many problems. Of his machines working in fields countrywide, most have more than 50,000 hours on them and are still ready to go.

"The smaller, foreign-built machines are better for garden farmers. If

you put a foreign harvester in the heavy soil out here, they bust right up," he says.

The machines are available in three sizes, one with two-row harvesting capability at the small end and the larger machine with six-row capabilities. Small harvesters cost about \$200,000, while the six-row unit cost about \$440,000.

PNW PROVEN

Both Mercer Ranches in Alderdale, Wash., and Oregon Fresh Farms in Hermiston, Ore., have relied only on Vogel's harvester for more than five years and feel the investment is well worth the price.

Mercer has two of the four-row harvesters that dig two beds at a time, or 16 lines of carrots. Having changed over from Dixon Y harvesters to Vogel's machines in 1995, they found amazing differences and bought another in 1997. The Dixon Y only dug one bed at a time, but they are designed to go down the middle aisle, harvesting a half bed on one side and a half bed on the other.

According to Karl McBride of

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Carrots travel up a series of belts to the top of the harvester where the tops are cut off and fall onto a conveyor belt that drops the carrot into the truck.



Vogel Engineering has built more than 50 carrot harvesters. These custom-built machines are in use all over the country.

Ranch town

When looking to expand a business, the first thing people are looking for is a strong, willing workforce to draw from. In rural communities, commuting 45 minutes to a job is almost more than one can ask. How do you fix this problem? In Alderdale, Wash., Mercer Ranches is building its own community just for its workers.

A majority of the workers at Mercer Ranches, both year-round as well as seasonal, are Hispanics who commute from the Yakima Valley, about 45 minutes north of Alderdale. With average households of four to five people per family, it makes sense to put them all in one community. The new town-in-progress is already nearing 3,000 people and is the second largest community center in the county.

NEW ALDERDALE

More than 50 years ago, before the Columbia River Dam system, the community of Alderdale was close to the river and a thriving area. However, once the dams went in, the residents moved elsewhere and the community is now under water. About 15 miles north of the original town center is the new Alderdale, which is growing due to the need for more than 500 workers at Mercer Ranches.

"With a place like Alderdale," says Dana Peck, the Klickitat County resource development director, "you can start with a real philosophy and grow from there. Think about the kinds of elements that are going to go in there, such as the needs of an ag-based industry and people living there rather than in a commuting work force."

The sorts of things that community leaders are looking for are basic, but with a different slant. There needs to be proper roads, schools, a community center, downtown businesses, a gas station, grocery stores, parks and all of the basic elements that make a community. Peck's idea is to create a "walking community" where residents can walk to school or to the store or anywhere else in town.

"There is real potential to build energy conservation right into the sys-

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CARROT CUTTER

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Mercer Ranches, with the Dixon Ys, there had to be a "guess row" that wasn't always harvested completely or correctly, so a lot of carrots were left in the row. With the Vogel, which harvests two complete beds at once, McBride estimates they are saving between 3 and 5% of the product that would have been lost with the Dixon Y.

The pickup belts on the Vogel machines are synchronized with the ground speed of the digger that allows the carrots to feed in to the machines at the right time. As carrots come up the belts, everything is timed so that they don't drop or run over carrots.

"With the Dixon Y," McBride says, "it is all manual, and it becomes an issue of eye-hand coordination. If you speed up on the Dixon Y, you had to manually speed up the belts on the header." The headers on the Vogels are also much longer, which allow the product to be cleaned better. "You can remove more soil from the carrots and the extra length gives you more room to do that," McBride says.

Mercer, who harvests 3,500 acres of carrots per year, is able to pick about 30 tons of carrots every 20 minutes. They are able to pick as many carrots with two Vogel machines as they could with four Dixon Ys. McBride says that

RANCH TOWN

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tem from the start, like with solar, landfill gas fuel cells, and wind power. It can be a real experimental prototype for creating sustainable communities in rural areas," Peck says. He believes that there is potential to do "district heating" where the heat created from the Mercer's carrot plant is pumped into houses, reducing living and heating costs, very similar to what is being done in Iceland and Denmark. "It is possible to have all of these things tied together by design from the start."

ROAD ACCESS

Some of the basic elements are already underway for the development of what is becoming a 21st century Jamestown. The Klickitat County Road Department recently received a \$4 million federal grant to modernize and upgrade 18 miles of the Alderdale Road that will allow Mercer Ranch to have truck access year-round. During the construction, Sprint is upgrading the telephone and telecommunications systems in the area allowing for better Internet and phone access for the area.

"If 10,000 or 15,000 people are living in Alderdale within the next 10 years, it won't be by accident," Peck says. "It is because people who have lived in that area for a long time love where they live and they want to fully develop its potential." He says that building a town based on a commercial enterprise is an American tradition, especially in Southern states. The difference is that it hasn't happened often within the last 100 years. ♦

it can go faster, but 20 minutes is the average when including the time it takes to clean off the digger and do the paperwork that is required with every 30-ton truckload.

According to Bernie Clacagno, president of Oregon Fresh Farms, they are harvesting about 25 tons every 18 minutes. Oregon Fresh, who harvests about 700 acres of carrots per year, has been using their Vogel machine since 1992, and with nearly 50,000 hours on it, it is still going strong.

"The wear on the machine has a lot to do with the operator," he says. "I have an operator that in six months can tear a machine to shreds and another that can use it for two seasons and barely have any wear on it. I have not had any major problems with it yet, other than normal wear."

ACRE ECONOMICS

"It's like driving a Cadillac versus a Volkswagon," Clacagno says. He feels the only drawback to the machines is that it takes quite a

few acres of use to make the machines economical. "I used to think that it would take 800 to 1,000 acres to make purchasing the machine economical," he says, "but with the harvester, there is so much time saved that it would really only take 400 or 500 acres to make the machine pay for itself."

Clacagno recently toured the Vogel factory and he was quite impressed with the experience. "They have an excellent facility. The way they build them is not like an assembly line. One crew does each machine from start to finish. It's large enough that they can do that." Vogel figures he has made about 50 carrot harvesters with most clients owning one or two.

Mercer has harvested 55 sets of doubles, or 30 tons of carrots in a day, and the machine has been ready to go the next morning. The machine feels like it's going a lot faster than 4 1/2 mph when on the ground, but according to McBride, half the fun is driving it.

"It's quite exciting just to ride one," he says. "People from universities who come out on tours get really excited. We can put 25 people on it at once and they love to ride it because it's so fast." ♦

—Sapp is a writer in Goldendale,



Pulleys at the top of the harvester bring the carrots up from the surface, and rotating blades cut off the carrot