



SPOTLIGHT ON... NORPAC

AT A GLANCE

Norpac Foods Inc.
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Norpac produces about a half billion pounds of canned and frozen products each year. The company's six plants operate seven days a week, 22 hours per day. This means Norpac's focus on the environment makes a big impact. Norpac green practices include:

Energy use: Sustainable practices and efficient equipment will help the company reach its goal of reducing energy use by 25 percent over 10 years.

Water conservation: Norpac's plants now use 30 percent less water than they did 30 years ago to process their vegetables.

Reuse: Norpac's reuse program has eliminated both garbage waste and recycling material. For example, dry beans from the Midwest are shipped in one ton Super Sacks, which can be opened at the bottom and returned to the growers for more beans.

Recycle: In addition to cardboard, paper, metal and plastic, Norpac recycles its vegetable waste. All the corn husks, bean leaves and snips, beet peels and onion skins add up to about 400 million pounds of vegetable byproducts each year that go primarily to cattle farmers.

Purchase in bulk: Huge tanks on top of the Stayton plant hold sugar, vinegar and sanitation chemicals.

EarthWISE: All of Norpac's plants in Marion County were certified in 2008.



Mark Steele is Norpac's energy and environment engineer.

Inside Norpac's Stayton plant, chopped celery whizzes toward a freezing tunnel, onions roll into razor-sharp knives, and winter squash is pumped through steam and chilled water systems to be pasteurized prior to packaging. It's a mindboggling maze of pipes, machines, fork lifts, conveyor belts, and people preparing vegetables for canning or freezing.

The appearance of chaos is deceiving, however. The process is a fine-tuned system that not only preps the veggies, but also conserves energy, saves water and reuses every last bit of vegetable.

For energy use alone, Norpac has an ambitious goal. In partnership with Northwest Food Processors Association, the company is attempting to reduce energy use at all six plants by 25 percent over 10 years. This is an especially ambitious goal considering that in the last 10 years, Norpac has already reduced energy use by 27 percent.

One way Norpac has been able to conserve energy is by ensuring that the job is done correctly the first time. Running beans or corn through the processing line again because they didn't get done right the first time expends twice the energy necessary.

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All the corn husks, bean leaves and snips, beet peels and onion skins add up to about 400 million pounds of vegetable byproducts each year that go primarily to cattle farmers. Trucks loaded with the food at Norpac's Stayton plant wait for excess water to drain from the truck bed before heading to the farms.

In cold storage warehouse areas, Norpac has invested in automatic high-speed roll-up doors so forklifts can easily move frozen products in and out without the cold air escaping.

Mark Steele, Norpac's energy and environment engineer, is experimenting with super-efficient LED (light-emitting diode) lights. He has purchased the lights from five different suppliers and installed them in cold storage rooms. Once he determines which brand is the best, and that it saves enough money to justify the expense, LED lights will be phased in to the company's plants.

"We've been doing capital projects for years," Steele said. "For years, I've installed heat recovery systems, variable frequency drives, efficient lighting and more. Those things are there working now and we're focusing on operating the equipment efficiently, and turning it on only when needed."

Workers are continually trained in conservation techniques: opening the water valve just enough to

wash the vegetables and not have excess pouring on the floor; turning off a freezer tunnel if there are no veggies needing to be frozen for a few hours, and shutting off the equipment during worker breaks.

Processing vegetables is not just energy intensive: the process also uses plenty of water.

Norpac's plants now use 30 percent less water than they did 30 years ago to process their vegetables. That works out to a corporate savings of 450 million gallons per year. Workers have been able to make such significant conservation gains by doing things like recirculating water within equipment, reusing water from cooling the vegetables for washing them as they come into the plant, and training sanitation people to use squeegees more and hoses less. And Steele says, "When we get done using that water, most of it goes back on the land to irrigate our farmers' next crops." The most visible example of that is the 700 acres of pastures at the Brooks plant next to Interstate 5.

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(ABOVE) Bulk cardboard boxes are used on average seven times to store products in cold storage units before being sold to a re-used box distributor.



(RIGHT) NORPAC products go from harvest in the field, through processing and freezing, to packaging in one of five state-of-the-art processing plants in Oregon – all in less than four hours!

Vegetable waste is another obvious byproduct of Norpac's business. All the corn husks, bean leaves and snips, beet peels and onion skins add up to about 400 million pounds of vegetable byproducts each year that go primarily to cattle farmers.

As the old saying goes, one's waste is another's treasure, and that is certainly true at Norpac. For example, some of the sweet corn packed by Norpac is very high in sugar content. This material finds its way to cow barns. Compared to their normal diet of pasture grass and field corn, "Cows love it; it's cow candy!" said Steele, laughing.

The company's recycling efforts extend to all of the materials used at the plants. The company, which has six plants, recycled 5.7 million pounds of cardboard, plastic, metal and paper last year. Garbage has sharply declined at the same time: 31 percent since 2008.

But whether we are talking about water, energy, plastic, or the vegetables themselves, the company's sustainability strategy is actually to reduce and reuse before recycling. Norpac's reuse program has eliminated both garbage waste and recycling material. For example, dry beans from the Midwest are shipped in one ton Super Sacks, which can be

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opened at the bottom and returned to the growers for more beans. The Super Sacks eliminate the need for paper bags. Bulk cardboard boxes, called Gaylords, are used on average seven times to store products in cold storage units before being sold to a re-used box distributor.

Stainless totes on wheels also hold a ton of vegetables at the plants and allow workers to move huge quantities of produce to where it needs to be processed. They can be reused for many years.

Plus, materials that Norpac needs in huge quantities are purchased in bulk. This eliminates the need for any kind of container. For example, huge tanks on top of a building at the Stayton plant hold sugar, vinegar, and sanitation chemicals.

Steele says, "I see farming as the original sustainable industry. Farmers want to sustain their business and pass the farm on to their kids. In much the same way, Norpac wants to sustain their operations for the benefit of its future growers and employees. Farming began with Cain, the first man born on earth, and will continue as long as people want to eat."



Inside Norpac's Stayton plant, chopped celery whizzes toward a freezing tunnel. Processing vegetables is not just energy intensive: the process also uses plenty of water. Norpac's plants now use 30 percent less water than they did 30 years ago to process their vegetables. That works out to a corporate savings of 450 million gallons per year.



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EarthWISE Certification

Norpac is a grower-owned vegetable processing cooperative of 240 family farmers with plants in Stayton, Salem, and Brooks. All of their Marion County sites became EarthWISE certified in 2008.



WANT TO DO THIS AT YOUR BUSINESS?

Marion County's EarthWISE program can help. Visit mcEarthwise.net, call 503.365.3188 or email Earthwise@co.marion.or.us