

There's Power in Numbers with Optyx®



Two heads are better than one. What if the old adage was expanded to more than two? That idea was the catalyst that created the West Michigan Processing Co-op in Holland, Michigan.

The co-op brought together a number of independent blueberry farmers who pooled their resources to purchase the new, compact [Optyx® Sorter](#) from [Key Technology](#). Now they can achieve the high quality standards for uniformity that their customers demand.

The old method of sorting was simple but labor intensive. The fruit was dumped into a water tank and transferred onto an inspection belt. Sugar

content caused the ripened berries to sink and the green berries floated to the top. Workers stood on each side of the belt and picked out the rejects by hand.

This method was very limiting in terms of production capacities, according to Thomas Pascoe, general manager at the co-op. "The (speed of the) belt, by the nature of the fruit, had to accommodate the pickers' ability to clean the green out of it. So you couldn't speed up the process."

Limited production capacity wasn't the only problem this sorting method presented. Because of the velocity of the inspection belt, a large quantity of ripened berries floated to the top along with the unripened ones. The blueberry producers were throwing out good product, therefore decreasing profit their margins.

Additionally, if a packing plant cleaned the grower's fruit, the good fruit that

was erroneously rejected became the packer's fruit. They literally gave the packer fruit that could be processed and sold as their own after the sorting was done.

Although they knew that an optical inspection sorter was the solution to their problem, no one grower could afford to make the investment. This was compounded by the fact that blueberry processing encompasses a very short season, usually six-weeks.

Key's Optyx Sorter makes optical inspection practical for lower volume applications where automated inspection historically has not been economical. Optyx provides excellent color-and shape-sorting in a compact, versatile unit. Lower capital costs, reduced labor, improved product quality and enhanced product recovery make payback fast and easy.

Pascoe recalls, "Most of the growers had done cleaning before — they had individual shifts at their farms. They were familiar with the general way things were cleaned before and they knew that there were advances taking place in the marketplace, such as Key's color sorter. But none of them had the financial wherewithal. Rather than going out and buying a color sorter for X dollars 12 times," the co-op was formed and the Optyx was purchased.

Optyx was the first optical sorter considered, Pascoe reports. An early production-unit of the Optyx was quickly put into operation so the co-op owners could observe its capabilities first hand. "I was just taken aback by the way the color sorter worked. I mean, it was just

"We can look at a particular shift running a particular volume of fruit and compare it to the machine's performance. If we get 2200 pounds more an hour down the Key line and use two fewer people - it's dollars and cents. Plus the Optyx will always be here. It doesn't call in sick."

*-- Thomas Pascoe,
General Manager*

amazing," Pascoe recalls. But some growers were still hesitant about the investment because of the short processing season and surprisingly, because of the high degree of accuracy Optyx provided. "Some of the group considered it to be a bit of overkill for our needs." So to prove that the co-op would reap benefits from the Optyx, Key placed it on a test basis.

The results? "The machine proved to the growers that they do have the ability to pay for it," Pascoe says. "When you sit down and consider how much food it saves you, its cost-effective labor factor and the volume of food it will run per hour, you find out that the machine is not that expensive."

The co-op primarily cleans fruit for its 23 founding members. Their fruit is pooled and inspected together. Farmers outside the co-op also can contract the co-op and take advantage of Optyx's technology.

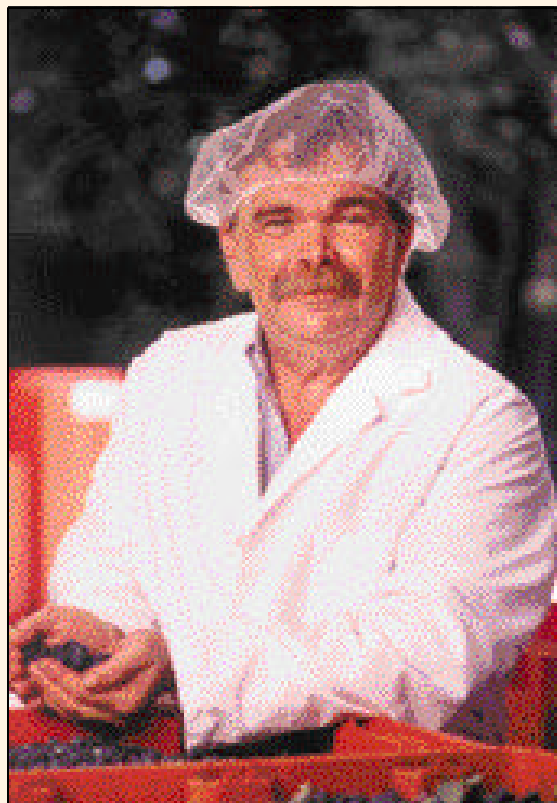
Labor and output statistics are used to evaluate Optyx's performance against other cleaning methods such as manual inspection. "We can look at a particular shift running a particular volume of fruit and compare it to the machine's performance. If we get 2200 pounds more an hour down the Key line and use two fewer people – it's dollars and cents. Plus the Optyx will always be here. It doesn't call in sick."

Optyx has significantly improved the quality of fruit the co-op delivers to its customers. The obvious improvement is the sorter's ability to distinguish between the ripened berries and detritus. This category includes green berries, ones that are red because they are not quite ripened and berries that are multi-colored.

Another critical quality issue Optyx resolves is distinguishing between blueberries and the dark Japanese beetle, a common pest in blueberry crops.

"Our customers obviously have zero tolerance for the beetle," Pascoe reports. "They don't want blueberries with legs. Optyx has a greater ability than almost any other color sorter on the market to remove that defect." Ease of sanitation is another benefit Pascoe points out. "From my perspective, one of the great attributes of the machine is its self cleaning. I think you have to dust off the camera occasionally. But it's not like you have to tear it to shreds and power-wash it. It is not the type of machine that crunches things up and gets real dirty."

Optyx is designed for simple wash down, with food-grade stainless steel construction, self-cleaning belt and a sealed optics/electronics enclosure. With smooth lines and no horizontal surfaces to collect debris, Optyx does not require frequent cleaning.



The Optyx also has proven to be user-friendly. Because blueberry sorting is labor-intensive, the co-op often hires younger, inexperienced workers. But according to Pascoe, almost anyone can run the machine. "It's not the type of machine you have to be afraid of. It's user-friendly in my opinion."

The multilingual graphical interface is easy to learn and use. Sorting criteria can be easily set, adjusted, stored and retrieved for fast product changeover. The narrow, self-contained unit – with no separate control module – slips easily into the processing line.

Pascoe uses an analogy to summarize his feelings about the Optyx sorter. "Take a Chevy and a Cadillac. Both will get you from point A to point B. But, if the objective is to get from A to B in a certain amount of time, then if a guy has a Ferrari, he's going to be there before you. Well, you're talking about the Ferrari of color sorters with Optyx. You may as well get to the finish line first."

Pascoe reports that the co-op is looking at others ways to get the most out of their investment. Because of Optyx's versatility, they are considering marketing it for use in other industries. "These machines are so versatile you could tweak them into sorting plastic gears for the automotive industry in the off-season. They're tweaked to pick out defects. So, if the defect is no teeth on the gear, you blow it out."

Do the co-op founders think they are getting their money's worth? "The machine does what it's touted to be able to do and we've seen that firsthand," says Pascoe. "If you're going to clean fruit in volume, the investment in the Key Optyx sorter is money well spent."