

fall 2016

# yields



Ron Gonsalves

## Blue Bird of Scrappiness

Blue Bird, Inc. and its members continue to overcome challenges as they invest in new technologies to meet customer demand.



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Nearly 200 members strong, the men and women of Blue Bird have always looked to the future, changing with the times. In June 2015 their new, \$12 million cherry line was up and running.

Programmers were fine-tuning codes, workers were learning the rhythms, cherries were thrumming through the line. Then suddenly, it all went up in flames.

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## *About Yields:*

Yields is produced for customer-members of Northwest FCS, an Agricultural Credit Association.

Comments and story ideas can be sent to the Marketing Team, c/o Northwest FCS, P.O. Box 2515, Spokane, Washington 99220-2515. website: northwestfcs.com

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Article quotes have been edited for content and appropriateness.

# Blue Bird of Scrappiness



From its beginning in 1913, Blue Bird, Inc. and its co-op members have overcome the odds. They've survived and thrived through downturns, depression and recessions, plummeting ag prices, escalating production costs, ever-changing consumer tastes and always-tightening regulations.



*"The tree is the only thing that stands still in our industry. We have to be ready for change. I believe software and technology will reset every three to five years. Someone is always applying technology to create faster and more accurate equipment with reduced labor."*

– Ron Gonsalves  
Blue Bird, Inc. President



The growers, the men and women of Blue Bird – now nearly 200 members strong – have always looked to the future, changing with the times. Strategic acquisitions deepened Blue Bird’s core of apple and pear tonnage, broadened its grower base with cherries and apricots, and heightened its standing in the retail market at home and abroad. The move to organic packing for its members and production in its company-owned

pear and apple orchards extended its appeal to discriminating consumers. Judicious adoption of technology, too, increased its competitiveness.

On May 29, 2015, cherry packing began on Blue Bird’s \$12-million, shiny new, state-of-the-art processing line. The operation hummed.

***Just 30 days later, it was all reduced to rubble.***



◀ Tom Howard  
Northwest FCS Relationship Manager

## Sunday Evening, June 28, 2015

At the Blue Bird, Inc. fruit packing plant in Wenatchee, 220 nightshift workers processed cherries on the co-op's brand-spanking-new, high-tech packing line.

A little after 9 p.m., Blue Bird President Ron Gonsalves and his wife were enjoying a quiet summer evening on their deck.

That's when the first text came in: A fire in Sleepy Hollow about seven miles from Wenatchee had reached town and was burning Northwest Wholesale, a co-op that sells ag chemicals and fertilizers, tools and packing supplies.

A few minutes later, another text: Stemilt's on fire. A family-owned fruit company, Stemilt's packing facility sits a stone's throw from Blue Bird.

Meanwhile, police evacuated the Blue Bird workers before the fire would come any closer. With a 100-foot wall of fire taking homes to the north and its path directed by a 40 mile-per-hour wind, the district's fire-fighting equipment and personnel were stretched beyond their ability to respond.

***"We trusted that Northwest Farm Credit would have our back," said Ron. "We appreciated Tom's understanding and his support while we sorted things out."***

## Ravaged by Ember Rain

Ron and his wife made it to Blue Bird around 9:30 p.m. By 11:20 p.m., cinders landed on Blue Bird's roof. By 4:40 a.m., flames engulfed the entire packing area – some 110,000 square feet chock-full of packing lines and equipment would be reduced to rubble within hours.



Although not consumed by the fire, the cold-storage area holding \$5 million of fruit waiting for market was ruined by smoke, water and loss of electricity. Its controlled atmosphere was no longer controlled.

*Despite the devastation, Ron vowed, "There will be no victims here," promising they would be ready for the start of the next cherry season, 11 months away.*

Everyone – management and employees, architects, contractors, electricians, plumbers, construction workers, equipment vendor MAF, Northwest FCS and others – stepped up to the challenge "110 percent," Ron said. "We went back to the same contractors who'd just finished the new line. It wasn't hard to convince them. They said, 'yeah, let's go!'"

Northwest FCS Relationship Manager Tom Howard, who's worked closely with Blue Bird for 10 years, knew they had a big job ahead, and remained confident they would bounce back stronger than ever. "We stayed out of their way while they were figuring out what they needed to do," said Tom. "But we were ready to step up as soon as they needed us."

### Down to the Gravel, Up from the Ground

Ron and his team spent the first two weeks with insurance adjusters documenting what they lost, which was essentially everything. Demolition started in mid-July. Crumbled concrete, twisted metal, molten wire, sodden insulation, charred equipment, gutted forklifts and even the building's floor slab had to go. By Nov. 1 the lot was down to gravel. Construction could begin.

The new \$50 million facility rose from a footprint almost identical to the old, which had been constructed in three phases. In the old building, concrete walls separated the cold and controlled-atmosphere storage, the cherry lines and the organic apple/pear lines. The new design created 10,000 more interior square feet by adding a mezzanine in the middle, providing space for storing and assembling packing supplies for both the cherry and apple sides.

Contractors and electricians slogged in the snow and mud to meet the building's compressed timeline, working 12 hours a day, six days a week. France-based produce equipment maker MAF designed and fabricated the eight-lane organic apple line and the three 14-lane cherry lines that could process 50 percent more fruit than the two "new" lines that were lost. MAF also engineered the catwalks and two "bridges," the control rooms that hold the servers, monitors and IT staff who direct and govern the line operations.

On May 25, 2016, only seven months after construction began, the cherry line was complete. Blue Bird would begin processing cherries a scant 14 hours later...the earliest start of a harvest in history.





◀ Ron Gonsalves  
Blue Bird, Inc. President

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## Next-Generation Technology

Inside each bridge, it's all about control; it's about the ability to conduct predictive maintenance, see and tackle stoppages, eliminate guesswork and save time. One monitor displays the line as a complete system, allowing the operator to drill down to areas as large as sections and as small as individual motors – 260 on the cherry side and 160 on the apple/pear side. They set the line speed and sorting parameters from variety to defect levels; they program the fruit drops, the box or bag type each piece goes to, the grower lot number and how the box is packed. Sent by in-line cameras, color and infrared images of each piece of fruit are displayed on monitors inside the bridge.

Ron compares the power of the new cherry line with the old new line. "The new servers are physically smaller than the ones we installed just last year, and process information three times faster," he said. "They're also more accurate."

*"At the end of the day, this is a much nicer facility than we had before the fire," Ron said. "We have a more efficient workflow and improved employee facilities. Plus, we're better equipped to deal with food safety issues."*

The lines themselves are 21st-century stainless-steel marvels engineered to move, sort, weigh, wash, dry, direct, label and pack each piece of fruit. Sixteen high-definition cameras take 20 pictures of each apple (or pear in



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Going beyond what the eye can detect, infrared cameras reveal internal bruising, browning and water content.

pear-packing season) to determine size, color and blemishes. Going beyond what the eye can detect, technology allows a look at internal qualities as well. Infrared cameras reveal internal bruising, browning and water content. Six cameras on each of the 42 lanes on the cherry line take a total of 60 images of each cherry for size, color, surface blemishes and internal firmness.

All this data is sent to the processor in its respective bridge, which instantaneously directs each piece of fruit to its place in the next stage of the line.

On the apple floor, technology begins at the robotics station, which can handle seven different types of bins. It performs a carefully choreographed dance among three sets of green robot “arms” maneuvering an endless stream of bar-coded bins. Each arm in turn lifts a bin brought in from the field and lowers it into a washer that rids the base of dirt, rocks and other contaminants. It then raises, tips and pours the fruit gently into a wide trough of water. The emptied bin is moved to a chamber where it’s pressure washed with a chlorine and water solution. Completing its cycle, the arm positions the bin and stacks it for delivery back to the fields. The robotic system is designed to handle 450 bins per shift. The system on the cherry side handles 30 tons of fruit per hour.

## Driving Technology: Safety First

Initially, technology was an answer to the rising cost of labor and labor shortages. Now, it’s an essential tool to enhance safety of the food supply and of the workers.

“Regarding food safety, we want to act more responsibly than anybody,” Ron said. “Sanitation is in everything we do.” He notes that Blue Bird packing operations closely follow SQF (Safe Quality of Food) safety standards. Blue Bird’s growers are all GLOBALG.A.P.-certified, assuring the fruit is free of chemical, biological and physical risks.

Food safety begins at the very first stage of processing with the robotic bin handlers, the first system in Washington state to wash bins in line. Electrical motors, fans and electronics are positioned above the lines, out of the way of cleansing solutions. Dryers and elongated brush beds that gently cradle the moving fruit are fabricated for easy sanitizing as well. Near the end of the line, technology tags every piece of fruit, making it traceable back to the orchard.



Apple processing begins with robotic bin handlers, the first system in Washington State to wash bins in line.



Programmers set line speed, sorting parameters, defect levels and packaging options.



Worker safety standards are tightening, which Blue Bird considered in its rebuild. Ceiling panels absorb 90 percent of the sound, protecting workers' hearing. White painted surfaces brighten the vast space; LED lights, solar tubes and large windows bring in natural light. Packaging components are staged and assembled on the mezzanine and delivered to the packers via a conveyor system, cutting trip-hazard clutter on the floor to zero. With the intricate conveyor system, no line worker lifts a packed box.

*"Our recovery took the efforts of many people," Ron says. "Now we have a 25-year asset and a modern facility that will serve as a model template for the fruit industry going forward."*

### The Pace of Change, the Price of Recovery

"The tree is the only thing that stands still in our industry," Ron said. "We have to be ready for change. I believe software and technology will reset every three to five years, and nothing out there says it will plateau. Someone is always applying technology to create a new piece of equipment that will be faster and more accurate with reduced labor."

For more than 100 years, Blue Bird has overcome adversity. Now, this scrappy co-op has been fire tested; risen from the ashes, and with the help of so many, Blue Bird is stronger and better positioned than ever.



Blue Bird provides customized packaging to meet retailer demand.



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With the intricate conveyor system, no line worker lifts a packed box.