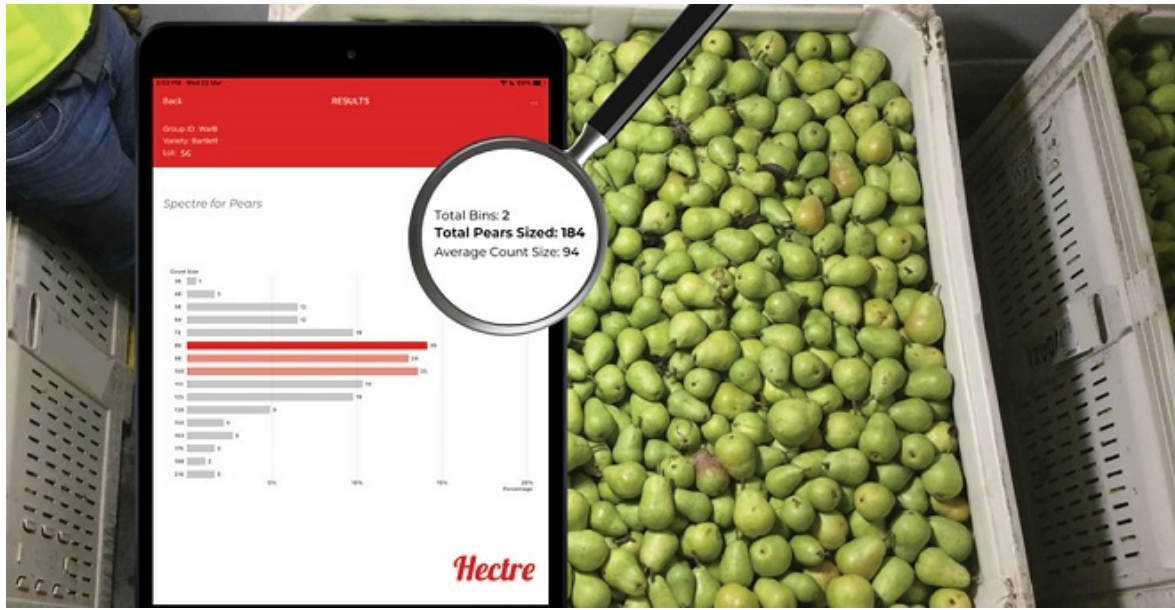


May 18, 2023

New AI: early size profile available for pears



The U.S. is one of the top three pear producers globally, and work is under way in many areas of the supply chain to ensure more pears make it to market. From rootstock research and modifications, growing structures, disease prevention and treatment, all the way through to controlled atmosphere developments.

And then there's artificial intelligence (AI), which is bringing solutions to fruit growers and packers that many would have considered nearly impossible 10 years ago. One of the newest AI innovations provides growers and packers access to pear size data. The information arrives earlier than ever before — as soon as the first bin of pears has been picked.

Ag tech company Hectre recently released the Spectre for Pears app. The app enables users to gain massive size samples from a photo taken on a standard iPad.

Applying AI technologies and a lot of gymnastics in the cloud, the app returns pear size data within seconds, and with no touch on the fruit.

Significant amounts of time are lost in packinghouses due to unnecessary line

stoppages, equating to costs in both labor and missed opportunities. Often, these stoppages are caused by the wrong size fruit entering the line, a sign that storage and production teams lack reliable size data at the very start of receiving.

Traditional manual early size sampling is time-consuming and produces such minimal size samples that don't reflect the fruit in the bin. Plus, because it's at that early stage, teams must make decisions around market fit, storage placement and duration. That same unreliable size data is provided to sales teams who are required to commit to orders for fruit they think they have, but when it comes time to run the pack, they discover the size profile is wrong.

With AI tools like Spectre for Pears, more than 80 pears per bin can be detected and sized almost instantly. With the app's speed and high detection rates, in just a few minutes growers could be looking at a sample size of 800 pears. This is touchless technology, which can be used right out in the orchard, or in the cool store or packinghouse, and operates in any weather conditions.

With large size samples, decisions for market fit, sales and storage become much stronger. Add in benefits for the packing line, and this level of early size data access can be a game-changer.

Sage Fruit, Yakima, Washington, has used Hectre's Spectre for Apples AI app since 2021.

"Having accurate size profile information ensures we don't end up with a reduction in throughput and means the packing line can run at full speed," said Shane McKinley, director of quality control at Sage Fruit.

Now with the tech available to the pear industry, similar benefits could be gained and more pears could make it to market.

— FGN staff

Photo: Spectre for Pears, an AI tool, sizes up bins of Bartlett pears, delivering large size samples in seconds to pear growers and packers. Photo courtesy Hectre.