

South Africa-based agricultural group Agri Technovation has launched a new product that monitors a fruit tree's carbohydrate status, allowing for timely corrective action to ensure an optimal harvest.

The technology called Itest Carbohydrates is said to be especially effective in addressing alternate bearing by helping to establish a greater equilibrium between crops, leading to increased yields over time.

According to Erik de Vries, [Agri Technovation](#)'s joint chief executive, the new tool has already proved successful among citrus growers.

The technology was recently extended to the avocado industry and will soon be launched for apples as well as macadamias, almonds, pecan nuts, vineyards and mangoes.

"We are looking at almost 20 different crops and have made good progress on about 14 of them," de Vries said.

"Over the last two years, the technology has been successfully implemented in the South African citrus industry and the analysis program has already been developed up to cultivar level. The citrus program is also being refined to become area-specific, which takes into consideration different climates."

Countries that have already sent avocado samples to Agri Technovation's analytical facility include the U.S., Australia, New Zealand, Argentina, Peru, Morocco, Zambia and Zimbabwe.

Mexico, Chile and Spain have also shown interest, and planning for the receipt of their samples has started, the company said.

Effectively, the Itest Carbohydrates analysis program monitors and compares sugars and starch concentration in leaves and roots at critical phenological stages throughout the season.

Any variance from the norm allows for the timely development of management practices, such as pruning, orchard manipulation and nutrition programs.

"I am convinced that this is a revolutionary breakthrough for agriculture," de Vries said.

"Over time, it will ensure a more constant supply of produce to the market, which is not only good for the consumer but has massive risk-mitigating advantages, especially for producers," he said.

According to Corné Liebenberg, marketing director at partner firm Laeveld Agrochem, the introduction of the analysis program to South Africa's citrus industry has been "hugely successful and has surpassed all expectations".

"This is a game-changer for the agricultural industry. Up to now, there was no way of really addressing on-and-off seasons," Liebenberg said.

Instead of responding reactively to what has happened in the past, Agri Technovation's IP allows fruit producers to look into the future to how their fruit and nut trees will produce and then respond proactively to ensure a productive harvest in the next season, he said.