

Chile is developing new varieties for various fruits and expects to have the first apple and citrus cultivars ready for 2022, with trials currently underway.



The public and private projects - which also involve stonefruit, table grapes and cherries - are aimed at providing Chilean growers with a boost in both domestic and international markets.

Johanna Mártiz, an associate professor of Agronomy and Forestry Engineering at the Catholic University of Chile, works in a breeding program that is developing seedless citrus varieties.

She told Fresh Fruit Portal that the project was born from the problems growers were experiencing in the market with seeded lemon and mandarin varieties.

"It is estimated that 35% of the fruit receives lower prices because of the seeds ... and that is where this breeding program came from," she said, adding the program is largely focused on irradiating buds.

Trials are underway for seedless mandarin and lemon varieties, and a spineless Limonero Fino 49 tree has also been developed. Mártiz expects that within four years the first varieties will be ready for their commercial launch.

The new clementine variety is a cross between a clemenules and a oronules, while the mandarin variety has W. Murcott and Fortune parentage, and the lemon cross is between Eureka Frost and Fino 49.

Expectations are highest for the mandarin variety, she said.

"These selections are under final trials to move to the pre-commercial stage, where we will begin to evaluate all their agronomic characteristics to see how productive they are, if they

meet the industry's standards, among other things," she said.

She emphasized that the key to the breeding programs was that they develop varieties that keep the Chilean fruit industry relevant at the international level.

Apples

Pablo Grau, who heads up research institute INIA's apple breeding program, in collaboration with the Fruit Exporters' Association (Asoex) and the Catholic University, also expected to see an apple launch within four years.

It is currently in the second stage of development, having started in 2013 and is due to finish in January 2022. By that time at least one Chilean-bred apple variety is expected to be ready.

"We are currently doing the cross and evaluating the material under the conditions that we have," he said.

He explained resistance to the Venturia fungus, which causes apple scab disease, would be an important characteristic of the new variety.

He said this would cut down on production costs, given that in some cases growers have to carry out 18 fumigations for the fruit to be commercially acceptable.

Grau explained that while there were Venturia-resistant varieties available in the market, they not did have the other key characteristics necessary for new apple varieties.

"A good appearance, color, shape and international quality ... are what the market is looking for, as well as juiciness and taste etcetera," he said.