

The Chilean Kiwifruit Committee's production commission has outlined yellow varieties as 'essential' for the industry's future.

Commission chief Matías Kulczewski says varieties such as Jintao, Enza Gold, Kiwi Kiss and Soreli present 'interesting' business opportunities for Chile, as the industry needs to differentiate its product offering to suit changing consumer tastes.

The country's first yellow variety arrived in 2003 with New Zealand's Zespri Gold, but a few years later almost all plantations were destroyed by fungal disease verticillium. It was a difficult learning experience for the industry but since then growers have been cautiously working on how new varieties could work in Chile and resist the disease.



In a release, the commission gave a summary of the different varieties and the momentum already under way with new kiwifruit opportunities.

## **Jintao**

The Jintao kiwifruit is well-advanced in Chile and is licensed to companies AMS, Frusan, Subsole and UPAC by Italian consortium Kiwi Gold, under the trade name Jingold. The variety fetches significantly better prices than Chile's mainstay [Hayward](#), except in the early years of production when a lack of post harvest knowledge tends to affect commercial results.

The fruit is uniform with minimal deformation levels and acquires brix grades before Hayward, but the yellow color of the pulp means farmers still need to wait before harvesting even after the right brix is reached. The Jintao is smaller than other yellow varieties so its yield is lower at around 35 metric tons (MT) per hectare.

As the Jintao's sprouting is less advanced than with Hayward it is less demanding in terms of frosts, which makes it appropriate for Chile's climate. The variety also has not suffered from the same hypersensitivity to verticillium as the Zespri Gold variety, while in Chile the Jintao hasn't had the same bacterial damages that has occurred with plantations in Italy.

It is expected there will be 1,000 hectares of Jintao kiwifruit planted in Chile by 2013.

## **Enza Gold**

The Enza Gold variety was [rejected by Kiwifruit New Zealand \(KNZ\)](#) as part of the country's

collaborative marketing provisions, but Chilean growers are confident in its potential. The variety is licensed by New Zealand company Enza and was developed by independent geneticist Don Skelton.

Due to fears for the effects of potential verticillium outbreaks, Chile started with small pilot plots of Enza Gold in Limache, San Fernando and Santiago. The variety developed well and so it will move forward in production this season.

Enza is working with Chilean plant pathologist Dr Jaime Auger from the Universidad de Chile to study the variety's susceptibility to verticillium, with preliminary results showing it is not too different in that regard to Zespri Gold (Hort 16 A). However, it has been found that agronomic management of plant roots and the soil can mitigate the effects of the fungus.

"Just this year it's being launched much stronger commercially, but always in small scales, because the Enza group does not want to make the same mistake that Zespri made with Hort 16 A," says Kulczewski.

The Enza Gold is highly productive in a way that is not too different to the Hayward variety, but due to the way it flowers there is less vulnerability to mechanical damage when compared with Zespri Gold. However, its taste is more acidic than the Zespri Gold and the Jintao.

It is expected 140 hectares will be planted for the variety's first commercialization stage.

#### **Kiwi Kiss**

The Kiwi Kiss was also created by Don Skelton but its exclusive license was bought by New Zealand businessman John Bostock, who is involved with Viconto (Greenvic) to plant the variety in Chile.

Kulczewski says the Viconto group has embarked on a 'bold and aggressive' campaign, doing everything possible professionally to develop the variety, and has signed contracts with growers to produce the fruit.

One difference of the Kiwi Kiss compared to other yellow varieties is that it has been grafted with Hayward orchards in Chile, with pilot projects in Maipo and Chimbarongo. It is thought that planting with the Hayward variety helps reduce the sensitivity to verticillium.

"Last year Viconto had one plant in production and three Hayward hectares grafted with

this variety as a pilot - now they have grafted 50 hectares in Maipo and 20 in Chimbarongo, together with various hectares on the properties of other producers, together with some new plantings," says Kulczewski.

The variety has a productivity of between 50 and 60 metric tons (MT) per hectare with the largest size for yellow kiwifruit on a commercial scale.

It is estimated that 600 hectares of Kiwi Kiss will be planted by 2014.

## **Soreli**

The Soreli kiwifruit belongs to the Udine University in Italy, where the Jintao was also originally evaluated. As an *Actinidia chinensis* cross, the variety was developed by professor Raffael Testolin and Dr. Guido Ciprianni.

The Italian experience shows the early variety can have good yellow pulp and be harvested three or four weeks before the Hayward. It has sweet and saturated yellow flesh and an average weight of 100 grams.

Jaime Auger says susceptibility to verticillium comes largely from the 'ploidy' of the variety, which means the number of sets of chromosomes in the biological cell. The more resistant Hayward variety is a hexaploid, meaning it has six sets of chromosomes, while the Zespri Gold is a diploid with two sets.

The Soreli is a tetraploid, meaning it has four sets of chromosomes and is somewhere between the other two.

The productive variety has higher yields than the Jintao due to its bigger size, with 300 hectares already planted in France, Italy and Greece. Biogold International bought the world license, excluding Europe and Turkey, and has embarked on a planting program that includes Chile, New Zealand, Australia, South Africa, China and the U.S.

Plants in Chile are currently distributed by nursery Bioctenia, with 200 hectares planned for the first stage by the end of 2016. Chile currently has 1000 Soreli kiwifruit plants and about 20 more are expected in 2012.

Biogold manager for South America Flavia Maldini, says the product has great potential but still needs technical validation.

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