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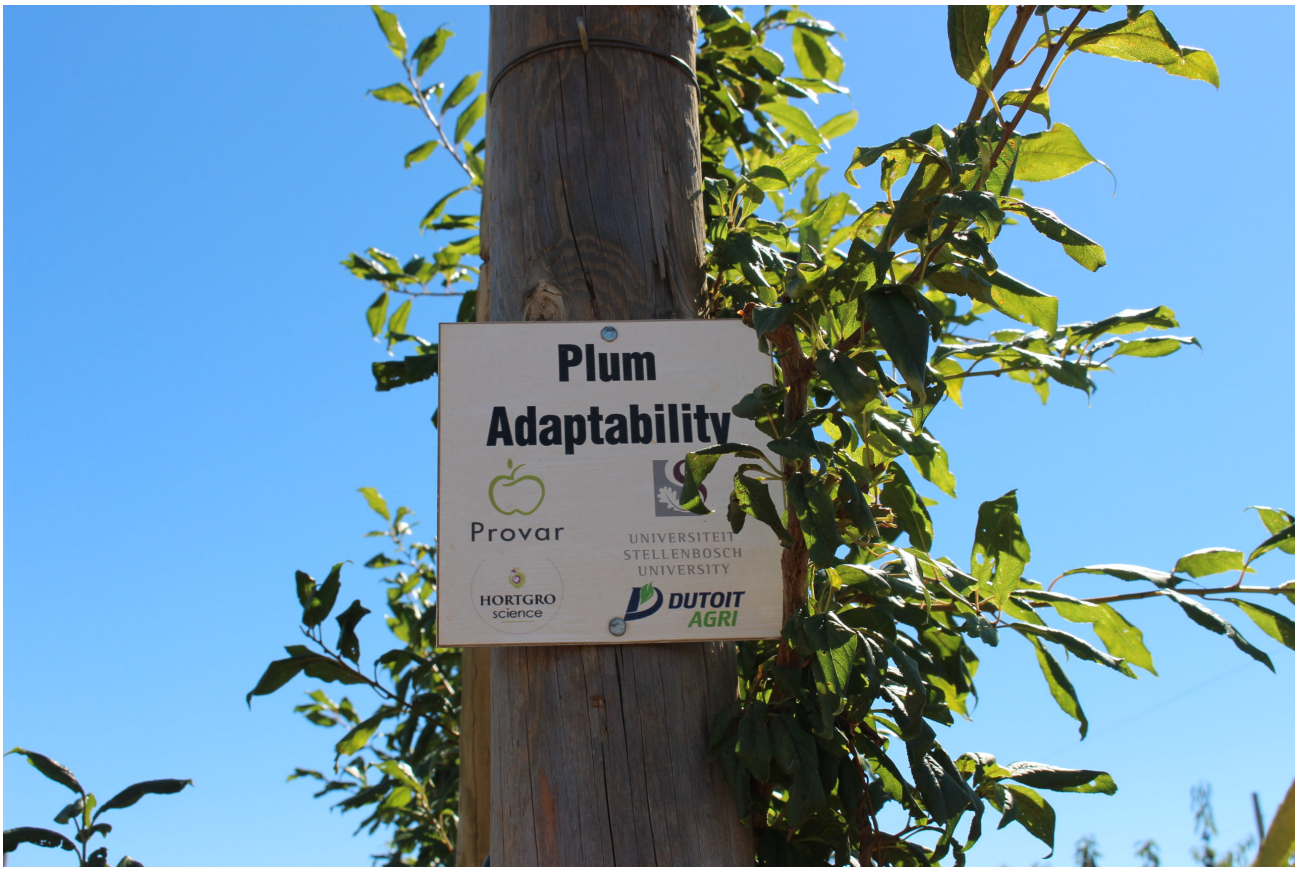

LICENSE TO DO RESEARCH

29 April, 2021 Elise-Marie Steenkamp Industry News, Industry Newsletters

By Elise-Marie Steenkamp

The Pro-Hort programme and the future of the deciduous fruit industry

In March this year, Hortgro and Provar, launched “Fruit tasting in the orchard” exhibitions in Ceres and Grabouw to give producers a chance to taste and experience new cultivars that are currently being evaluated by Provar.

The future success of the deciduous fruit industry lies, among other things, in the planting of new and adapted cultivars, says Dr Iwan Labuschagne from Provar. “Therefore, we must be prepared to present producers with objective and relevant data and information on new cultivars.”

The fruit exhibitions are an attempt to support this need and will become an annual institution for the fruit producer to attend. According to Thea van Zyl, Hortgro’s events organizer, the fruit tastings were well attended with around 113 people taking the time to visit the exhibitions. A similar event will take place in the Langkloof on 18 May this year and a mid to late season pome fruit exhibition will be held in Ceres and Grabouw towards the end of May.

“What stood out for me during the recent fruit exhibitions was the great need of producers and stakeholders, including the licensees and owners of the cultivars, to be able to view and experience the new cultivars at an independent event, but also to socialize and stroll around in the evaluation orchards,” says Labuschagne.

Apart from the fruit tasting exhibitions, an eight-year research project is also well on its way at some of the Pro-Hort sites. According to Prof Wiehann Steyn, Hortgro Science General Manager, the project aims to develop an index to evaluate the adaptability of apples, plums and cherries. This initiative brings together Hortgro, Provar, academics and students from the department of horticultural science at Stellenbosch University (SU).

The drivers of adaptability for a range of cultivars will be investigated. To achieve the goal, the team will assess tree architecture and other traits to understand the interaction between cultivars and climate. The students will be measuring bud break, how long it takes from initial bud break until last bud break, tree architectural properties such as branch angles, thickness and distribution of branches, as well as fruit size, production volume, and ripeness variables.

Trees for each fruit kind were planted on three sites with variable cold units. Apples at Nooitgedacht, Oak Valley, and Klipboschslaagte. Plums at Nooitgedacht, Klipboschlaagte and Boland Landbouskool and Cherries at Nooitgedacht, Lushof and Klipboschlaagte. “A lot of data will be collated in order to establish which cultivars work best in which area. For instance, a cultivar may excel in one area, but prove disappointing in another area. Some cultivars are all-rounders and fare well in different areas.”

Labuschagne said that they are very excited about the project which will take eight years to complete. Large amounts of data are collected that will identify different characteristics, which will point out drivers for adaptability and stability. “The ultimate goal is to develop an index that will enable us to test adaptation of new cultivars in support of independent evaluation.”

According to Steyn, another project, the pheno-phase project, has been developed as an extension of the adaptability project. This will be run by Dr Esmé Louw from the department of horticultural science at SU. Louw will use the bud break data from the adaptability project and match that to various cold models that are currently available.

“Cold models have been developed all over the world,” says Steyn. “Most producers are familiar with the Utah model and the Daily positive chill model, while some might also know about the Dynamic model. Each model tries to improve on aspects of an older model that were not working, so the information Esmé and the team are going to collect can then, for example, tell them which model fits best with the rest-break data. The best-case model may, for example, correlate 70% with the rest-breaking results you get in our regions. This can then become the best cold model to use. Different models may also work better for different fruit types or in different areas. In addition, we might be able to further fine-tune the best model for our particular climates. The same sites are therefore used for dual purposes which unlock a lot of value,” he says.

Labuschagne said that a lot of science will go into both projects. “The students are in the orchards, come rain or sunshine.” It is also great exposure for the students who get to work on a project that will benefit the industry in the long run. “In the end, this is a team effort between Hortgro, Provar, and SU. We are looking forward to the next couple of years and the solutions the data will bring.”

- Watch a video of Wiehann and Iwan **here**.
- The Pro-Hort programme was launched in 2019 and is a collaboration between Hortgro and Provar. Pro-Hort aims to empower producers by generating independent and accurate information on which to base cultivar selection for commercial planting.
- Read more about the pheno-phase project in the **June edition of the Fresh Quarterly**.

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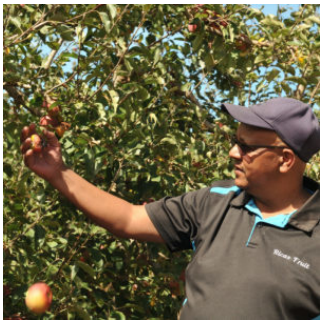

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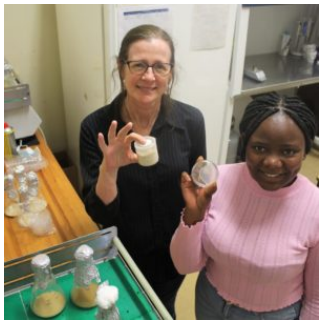

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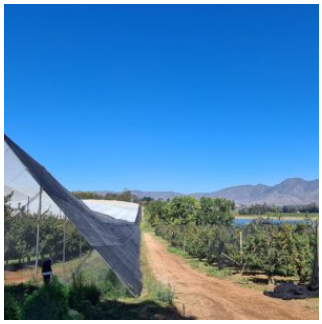

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