Phytelligence, A New Tree-fruit Nursery

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A new company, Phytelligence, has developed new technology to break the apple rootstock availability bottleneck. Many growers know the long wait necessary to get the new Geneva rootstocks. It has taken up to eight years with traditional propagation techniques to generate enough apple rootstocks to plant stool beds that grow the rootstocks for the nurseries to propagate finished trees. Dr. Amit Dhingra and his company, Phytelligence, have been able to solve this problem.

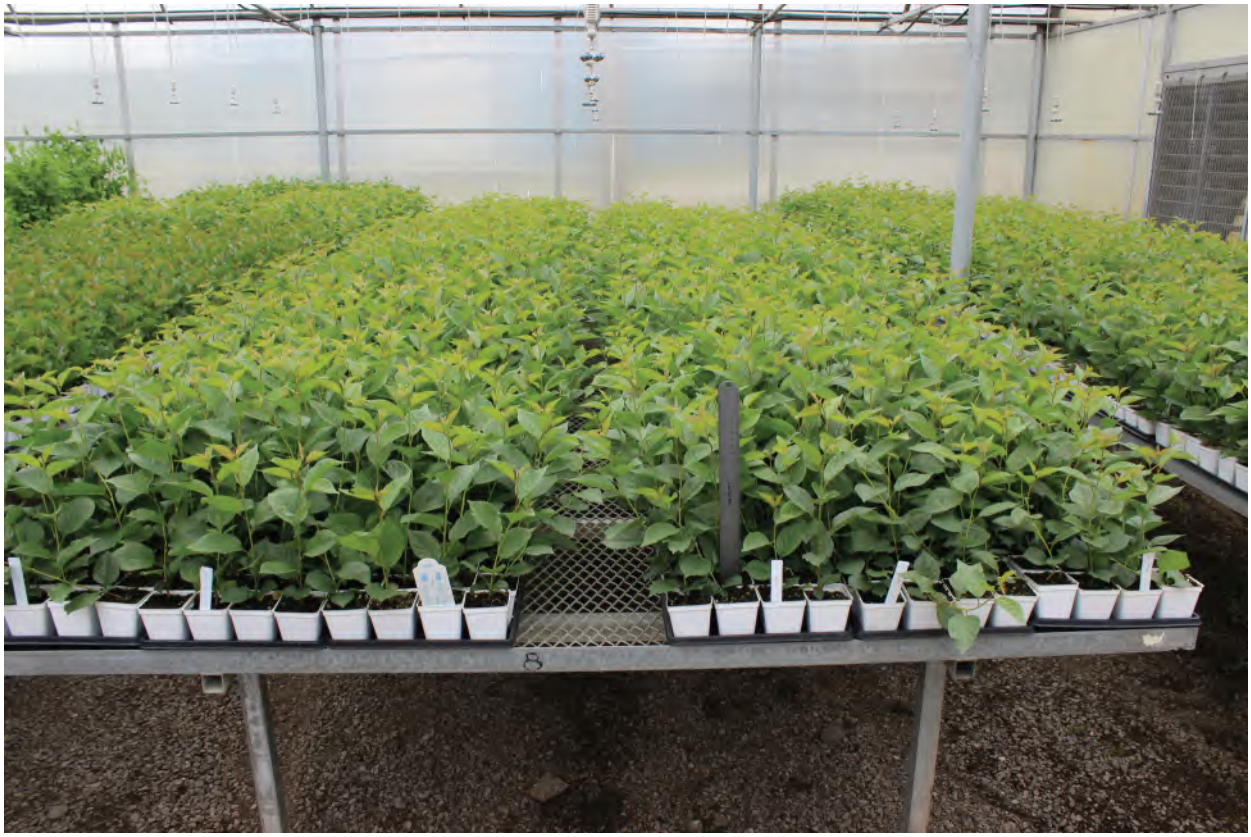
Phytelligence is a spin-off company from Washington State University (WSU), located in Pullman, Washington. WSU Research Foundation owns the inventions and is licensing the intellectual property to Phytelligence. The university will receive royalties on sales as well as maintain an ownership stake. Dhingra and his students are co-owners of Phytelligence.

The commercial fruit industry has been a strong supporter of Phytellience. The company has raised funds from fruit growers and nurseries to get started along with strong support from commercial tree-fruit nurseries. Four major nurseries that form the North American group of the International New Varieties Network (INN) have made a significant investment in Phyetelligence.

Phytelligence has focused their efforts to propagate rootstocks from tissue culture and also provide ge-

Tim Obrien, VP Marketing Phytelligence, Dr. Amit Dhingra in a collection of new pear rootstocks. Photo credit: Win Cowgill.

Rooting in augar at Phytelligence.



Giesla 12 six months after micro propagation in soiless media.

Finshed dormant G6 rootsock in Phyetelligence Seatle Greenhouse.

netic analysis to growers and nurseries. Bringing these rootstocks to market is just ramping up, with 350,000 apple, cherry, and pear rootstocks spoken for in 2016 and the ability to produce up to three million rootstocks in 2017.

Utilizing the technology developed by Dr. Amit Dhingra in micropropagation techniques, apple and other tree-fruit rootstocks can be propagated rapidly and true to type. This is a big step forward in the rootstock business.

Over the past two months, I have gotten to know Dr. Amit Dingra. He is full of energy and has a passion for his work, helping growers solve problems. In visiting Amit's lab in December, nine enthusiastic graduate students showed us their work. Projects ranging from pear rootstock breeding, fruit ripening compounds, tissue culture enhancements, and advances in genomic testing were all displayed. As Amit and I communicated, we realized we know many of the same horticulturists all over the US. It is a small world in pomology.

A unique quality of Amit is his passion for working directly with farmers. He has the true heart of an Extension worker. He began his work at WSU by visiting with farmers to identify their needs. His goal was to help solve their problems. He said "working with the farmers to learn about their problems has been the best part of my job!" As he began to solve issues with fruit production, Amit indicated he was well supported by industry, not only farmers but packing houses and nurseries. As Phytelligence was started, individual investors have played a big role in getting the company off the ground. Amit has a strong passion for research and I could see his strong commitment to his students. He indicated to me "I am here to serve".

Amit began his University career at Rutgers University as a post doc at the Waksman Institute. He then spent 2 years at the University of Florida as a postdoc and then moved on to WSU as a faculty member in horticultural genomics and biotechnology. Besides micropropagation of tree-fruit rootstocks and genetic analysis, Phytelligence is working on many other projects including wine grapes, raspberry, blueberry, and hops propagation, all through microproagation.

Phytelligence has a great future as they ramp up their production of apple, cherry, peach, and pear rootstocks that are true to name and add their portfolio of services for growers and nurseries to their offerings. For more information on Phytelligence see: http://www.phytelligence.com.

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