

# Bioscience company is in the business of growing

by Heidi Riley

Bioscience / Agriculture

**Phytocultures Ltd.** is a small Charlottetown bioscience company with plans to introduce a brand new kind of berry to the Atlantic Canadian market.

“It’s not very often that you can come up with a new kind of berry,” says **Don Northcott**, owner of the company, which is located at the West Royalty Industrial Park. For the past few years, the company has been growing and testing different varieties of the Hascap berry. Phytocultures will begin selling Hascap bushes next spring.

Hascaps taste like a combination of blueberries and raspberries. These dark blue rectangular berries have twice the antioxidants of wild blueberries. They are well adapted to cold climates and thrive without the use of chemical sprays. Hascaps ripen before strawberries, and can extend the harvest season and provide a new crop for farmers.

The company also produces disease-free seed potatoes called mini-tubers. It has branched out into selling seedlings of many varieties of plants, including strawberries, African violets, orchids, blueberries, and sweet potatoes. It also sells kits that simplify the process of producing cloned plants. The kits have found markets with farmers and greenhouse owners in 25 countries all over the world.

## Plant tissue culture

Phytocultures does not produce plants by growing seeds. To get the large number of plants that this company sells, using seeds would be too time consuming and prone to disease. As well, the results can be quite different from the parent plant - just like children can look very different from their parents.

“Plant tissue culture is like using a photocopier,” says Don. “You can create hundreds of thousands of identical copies or clones of one plant.”

To create clones, small cuttings are taken from a plant and placed in a sterile environment in test tubes. As the pieces grow, they can be divided again. Using this method, it is possible to start with one plant and create as many as 250,000 identical plants in less than a year.



**Marie Sullivan has been with Phytocultures Ltd. for the past 16 years. She started as a seasonal plant propagator and worked her way to full-time employment as the lab manager.**

**She has a farming background, trained on site, and has taken short courses at the Nova Scotia Agricultural College in Truro to brush up her skills. “I love this job because of the fact that this is a small company, and I do a little bit of everything. I work in the lab, in the greenhouse, and in the office.”**

## Staff

The staff at Phytocultures include a **lab manager** and a **production coordinator** who work year-round. As production gears up in the spring, seven or eight **workers** are hired to do the work of producing new plants and then transferring them to the greenhouse. In the fall, they harvest the plants, which are grown in Clyde River.

“Seasonal workers do not need any prior tissue culture experience,” says Don. “We provide our own in-house training. They need to be willing to do detailed, repetitive work to produce between 2,000 and 4,000 new cuttings per day.”

## Beginnings

Don graduated with a **Bachelor of Science** from **Memorial University** in Newfoundland. “At that time, plant tissue culture was going beyond the research stage and becoming commercialized,” says Don. “I have always had an interest in agriculture, and I saw a real opportunity in plant tissue culture. My business started when I built a lab in my parents’ basement and experimented with this new way of growing plants.”

Phytocultures Ltd. is a member of the Prince Edward Island BioAlliance, a not-for-profit organization dedicated to building the bioscience-based economic sector in PEI, with an emphasis on collaborative initiatives in research, business, education and supporting infrastructure.

For more information about the PEI Bio Alliance, call **367-4403** or visit **www.peibioalliance.com**