



Ontario Centres of Excellence

Where Next Happens

Recycling Hydroponic "Soil"

"We have a product that meets an important need for the many greenhouse operators in Ontario and Canada. The Ontario Centres of Excellence have helped us nearly every step of the way in getting this product to market."

George Scott, President, SRI Petro Chemical

There are some rather amazing and delicious sweet orange peppers they still talk about from a greenhouse demonstration project at the University of Guelph – not just because they tasted so good but because they were grown in a new kind of hydroponic "soil" that will meet an important need for greenhouse operators in Ontario and Canada. The growth medium was developed by SRI Petro Chemical with research supported by the Ontario Centres of Excellence (OCE).

OCE is one of the few publicly funded

institutions that builds the bridges from university research to the marketplace. OCE helps provide what is needed for innovative science and technology to be transformed into profitable new businesses.

Greenhouse production represents a \$3 billion industry for growing food and ornamentals in Ontario, and hydroponic techniques are an important tool for growers. The traditional "soil" in hydroponic productions systems has been rockwool, but some of the problems with this medium are that it is costly to recycle and is undesirable as landfill. SRI Petro Chemical has developed a cellulose-based material that can be re-used several times and then recycled using conventional recycling technology.

"Our product could easily reduce grower costs, reduce freight by 50% and reduce landfill of rockwool by 1100 truckloads per year," says SRI Petro Chemical President George Scott. "In addition, it can reduce the occupational health and safety issues for greenhouse employees working with the current fibre format."

In order to verify its new product, SRI Petro Chemical was introduced by OCE to

researchers at the University of Guelph. Dr. Mike Dixon, Dr. Youbin Zheng and Masters of Science student Jeff Huber supervised the testing of the cellulose product under accepted testing protocols and proper comparison to the rockwool product. The research verified, in a greenhouse setting, that the product met its claims.

The Guelph-SRI partnership has been a good one for student Jeff Huber. A recipient of the Ontario Centres of Excellence First Job Fellowship, Jeff is now employed by SRI as their Field Scientist and will be providing customer support in the changeover to the new growth media. Along the way he will document case studies on each new customer to provide needed commercial documentation for marketing into the European market.

"We have a product that costs less at both the front and back end uses," says Mr. Scott. "We know our testing on growing cucumbers and tomatoes will be just as good, and feel that many greenhouse growers in Ontario and Canada will be pleased with the results." This product will also assist greenhouse growers in their efforts to comply with nutrient management legislation.