Market oriented research

Rina Kamenetsky was born in Kazakhstan and has been working at the Agricultural Research Organization (ARO), the Volcani Center Israel since 1994. At the International Horticultural Congress in Lisbon this summer she presented a plea for market oriented research as a strategic tool in ornamental science. FloraCulture International interviewed Prof. Kamenetsky to find out about market oriented research and where she thinks this approach has hailed its biggest success in Israel.

by Ron van der Ploeg

Rina Kamenetsky

"Market oriented" is a typical example of a key expression that is used very often in the flower industry. However, it remains for most industry professionals such as growers a vague term with a broad meaning…

"I agree. The term is rather vague when used in the flower industry. However, in my paper I relate to only one "market-oriented" issue: research. I want to make this message clear: in order to perform relevant applied research in horticulture, scientists must be open to market changes and demands. General studies of plant biology and developmental mechanisms are very important, but are not enough to provide the needed support for the industry. As for applied research, scientists can certainly contribute to the most crucial issues – and only the market and producers can tell us what these issues are."

How can growers benefit from market oriented research?

"First of all, we believe that the individual growers or the growers' organizations must help to identify the most important and urgent questions for research. In the case in which they follow the research and discuss the results with researchers and extension officers, the application from the laboratory to the field can be quite rapid."

You attach great importance to mentioning a group of market experts….

"The main approach in our market-oriented ornamental research is COLLABORATION. In my lecture(s) I use data obtained from market experts and special literature. I have collaborated with Mrs. Tal Shlomi and Mrs. Tsipi Freidkin of the Department for Market Research of the Israeli Ministry of Agriculture, as well as with Mr. Menni Shadmi and Mr. Nadav Pass of the Israeli company "Hishtil". I am learning from their experience and expertise about market directions, demands and tendencies."

Which countries will arise as new flower producers?

"It is difficult to determine per country, but, in general, the horticulture and floriculture industries are moving to warmer climates and to developing countries. Therefore, the thrust of research should include the development of new technologies for growth and transportation, as well as the study of plant adaptation to higher temperatures and irradiation, as well as water shortages."

Your market message is clear: "Think locally, act globally", stressing the importance of the new uses for traditional crops. Could you give an example in Israel?

"Israel is known for cut flower production. Nowadays, we are developing varieties and technologies for the same crops – but now for potted plants. Obviously the biological traits, growth technologies and means of transportation are different. Calla, Anemone, Ranunculus,

Today, Israel produces peonies over around 45 ha, in three different climatic zones; in the North (Galilee and Golan), the East (Jerusalem area) and the South (Negev) of Israel.

Ornithogalum, and even peonies are all excellent candidates."

You mention the productive collaboration between researchers, extension services, regional R&D stations, growers and export companies...

"Actually, peony is a perfect example of the fruitful collaboration between these different teams. Initially, the practical aspects were studied in the Northern R&D Center, under the leadership of Mr. Menashe Cohen. Academic support was provided by our research group. The extension service developed the agricultural means, while all the project teams kept close contact with the peony growers, including visits, seminars, working meetings, etc. At the following stage, two additional regional R&D units joined our efforts, and so the extent of the project expanded. Cut flower production increased, and market experts, export companies and salespeople became very valuable. Of course, the production increase brought about new problems – disease prevention and control, extending the flowering period, postharvest and transportation issues. At least 40-50 experts contributed their knowledge to this project, and we still foresee a further development of this crop in Israel.

The most interesting experience? In 2000 we performed an experiment on the flowering biology of peony under controlled conditions in the phytotron. In March, we invited the peony growers and extension officers to the phytotron to discuss the results. When our research team visited the growers in April, their greenhouses were already readjusted for the best temperature regime found in our trials. This was the fastest application of our research."

It is interesting to see how Israel works on early "Potennials". What is the main goal?

"This research focuses on semi-finished products: bare-rooted propagation units and potted plants. These are sophisticated and programmed products, which can be finished in Europe or North America, just prior to marketing. We are working on about 50 different crops, and our most promising candidates are Aquilegia, Delphinium, Digitalis, Gaura, Dicentra, Helleborus and others. This new technology is really knowledge-consuming: we have to combine expertise in plant physiology, growth technologies, post-harvest and storage, transportation, greenhouse forcing, and, of course, markets."

I found out that you have been doing research on Trillium as a pot plant...

"Unfortunately, it would be very difficult to work on Trillium in Israel. This beautiful flower is the provincial flower of Ontario and requires cold for flower development. I studied it during my sabbatical leave at the University of Guelph (ON, Canada) in 2004. We were able to obtain Trillium flowering for Valentine's Day (February 14) (see photo). Trillium is a rather variable genus, with a few nice species and many attractive forms. I am sure that if our strategy of developing new ornamentals will be applied, a new and attractive pot plant would be developed. Trillium undulatum and T. erectum are also very good candidates for such a program."

To conclude how do you see the future for the Israel flower industry?

"The future development of the flower industry depends on many factors. I am a researcher, and I feel that we have a good scientific basis to support the industry. We still have our climatic advantages, excellent infrastructure and, of course, ambition. The competition is great, and, for this reason, I think that the future of our industry belongs only to new, smart and sophisticated products. The development of such products requires much knowledge, initiative and creativity. Therefore, I believe that working in teams with differing fields of expertise and collaboration with private companies will lead us to new advantages."

Peonies in bloom in Israel.

Flowering Trillium in the snow.

Aquilegia is a promising "Potennial".