

Researching the Green Edge

Maria Racota is behind many patents for green paint technologies

As research and development manager at Norjohn Emulsion Ltd, a division of Walker Industries, in Niagara Falls, ON, Maria Racota oversees all departmental research and development projects. She is also in charge of programs related to cost reduction, process improvements, new product/process development and commercialization, applying advanced knowledge in emulsion technology.

But her first Canadian work experience over a decade ago was just a little intimidating for her. "I was online troubleshooting with one of Norjohn Emulsion Ltd's most important customers, a metal file cabinets manufacturing company, after having worked only two weeks in Canada," she recalls. "I started the day by driving on the highway—with no previous highway-driving experience—and then assisting the customer with the overall finish of a coating using only my Romanian expertise."

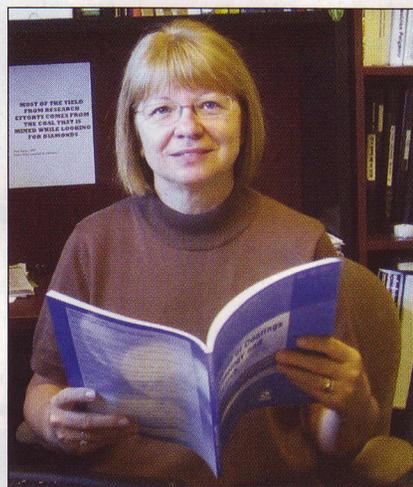
Fortunately, she continues, "a few changes in the formulation made the trick, and we ended the day with a successful trial, which led to a long-lasting business relationship." Having been employed by a well-known paint company in Romania which specialized in automotive paints, and obtaining a Master of Science degree in chemical engineering at the Technical University in Romania, Racota had the professional knowledge to complete the task but her Canadian experience was yet to come.

Starting her employment with Norjohn Emulsion Ltd in 1995, Racota has spent her entire career responsible for "formulating reasonably priced and high quality products for industrial applications," she says.

"I love my job; research is a never-ending learning process, a process of success and failure," Racota says passionately. "As I read not too long ago, Most of the yield from research efforts comes from the coal that is mined while looking for diamonds. It is a continuous process."

Prior to her tenure at Norjohn

Emulsion Ltd, Racota worked for several chemical companies as a product development chemist. "I have hands-on experience in quality control, development and implementing quality policies in the laboratory."



MARIA RACOTA
*Research and Development Manager,
Norjohn Emulsion Ltd*

However, to stay current in the coatings industry, she has "re-invented" herself, personally and professionally, in Canada for the past decade and a half. One way she has done this is by researching, creating and receiving patents for several coatings and household chemicals. The inventions she authored include an additive used in waterborne primer; a formulation for a waterborne primer; a water-based emulsion for automotive coatings; a rust-preventative product for metal surfaces; and vegetable-and-animal-oils-based wax emulsions for industrial applications.

Regarding the last patent application, says Racota, the challenge was to make products using waxes from renewable resources; products with water-repellent properties applicable in gypsum boards, engineered wood products, fiberglass, and paper products.

New bio-based products will lead customers to greener operations, explains Racota. The vegetable-and-animal-oil-

based wax emulsions are made from renewable resources and they are not dependent on the unpredictable and rising petroleum market, she adds.

It is important to Racota to be aware of all aspects of the industry and, as such, she is a member of a number of associations, including the Federation of Societies for Coatings Technology, the American Chemical Society, the Technical Association of the Pulp and Paper Industry, the National Petrochemical and Refiners Association and the Southwestern Ontario Bioproducts Innovation Network (SOBIN). SOBIN, which she says is an environmentally progressive association, and is a recently-established, not-for-profit organization dedicated to advancing new bioproducts and finding new uses for biobased feedstock in the manufacturing for the automotive, chemical and energy industries.

"During my first year in Canada, I applied to join the Toronto Society for Coatings and Technology," says Racota. Participating in seminars and expos, she utilized the opportunity to network and made several contacts in the coatings industry. "I would recommend any newcomer to Canada to join associations within their market and participate in industry events to familiarize themselves with important people and trends."

Although Racota's first professional Canadian experience, having just come from Romania, was a little nerve-racking, she overcame the challenge and never shied away from other worldly encounters. On the contrary, not only is she stronger for that experience, she explains, "one of my favourite things to do is to organize independent, worldwide tours and travel with my family and friends."

Married 25 years next year, Racota and husband Dorin have a 21-year-old daughter who recently finished studying political science and is pursuing a law degree in Ottawa. **CM**

Trisha Richards is a freelance writer based in Toronto.