

# SCN 2003 Report from University of Toronto

**Name:** Levente L. Diosady

**Organization:** University of Toronto

**Position:** Professor

**Email Address:** Diosady@chem-eng.toronto.edu

## **1. Fortification - Research**

We have an extensive program, supported by the Micronutrient Initiative, for the development of technology for iron and iodine double fortification of salt. We have developed a process that is based on microencapsulation, and provides 1mg iron in the form of encapsulated ferrous fumarate per gram of salt, added to the salt as a pre-mix representing 1% of the salt by weight.

We have produced the pre-mix on a pilot scale, and can readily produce batches sufficient for 1000 tons of salt, at a cost that will add some 2.5¢/kg salt. With UNICEF and MI we recently completed a field stability test in 4 locations in Africa, indicating that the iodine and iron are retained over more than 3 months in the field. We have completed preliminary sensory tests. MI is now planning a large scale field test with some 250,000 subjects.

Work is ongoing with technology improvements, inclusion of other micronutrients (e.g. vitamin A) and some work on triple fortification of edible oil.

### **What partners or organizations have helped make your projects successful?**

Micronutrient Initiative, PATH, UNICEF

### **Future plans and goals:**

We would like to expand our program to developing other micronutrient delivery technologies for fortification of other staples, such as rice and oils, as well as further technology development for the field testing, and in plant quality control technologies suitable for use in unsophisticated plants

### **What else do you need? Is there any specific information that would be useful?**

Financial support for research, and maintenance of a stable level of staffing/students