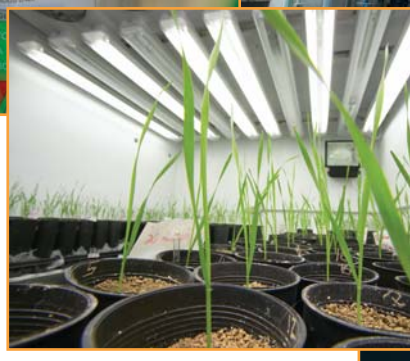
ILSA: Growth through Research

The Italian company ILSA finds its roots in 1957, when it was known as Piona Fertilizzanti. Its first factory was in Custoza and produced nitrogen and organic fertilizers. After a series of acquisitions, mergers and consolidations during which the product Fertorganico was launched and has since then remained one of its most popular products, the company changed its name to ILSA and moved its headquarters to Arzignano during the eighties. The year 2000 marked several milestones for ILSA. It built new headquarters in Arzignano and a new factory in southern Italy, located in the new industrial area of Molfetta, close to the harbor and main highways. It also launched a new company, ILSA Mediterraneo SpA. Over the years, ILSA has steadily increased its investments and its range of products. Today, ILSA SpA is in particular a leading producer of slow-release organic nitrogen fertilizers. The company and its 60 employees use exclusive advanced processing technologies, which have a low environmental impact, and invest close to 10% of its sales turnover in research programmes. While the Italian market still represents the large majority of the business, exports have started to pick up. New Ag International met for an interview with ILSA's President Paolo Girelli.



The keyword in the company's history, in particular during the last 20 years, is hydrolysis. In 1986, ILSA developed an exclusive industrial process of thermal hydrolysis to transform collagen. The technology involved in the process itself is unique. In 1987, ILSA expanded its production lines to include fertilizer pellets, which have high nitrogen content and a slow, natural release.

In 1993, ILSA went a step further and developed the technology to obtain enzymatic hydrolysis of plant- and animal-derived organic matter and it began the production of liquid and water-soluble fertilizers for fertigation and liquid fertilization.

ENZYMATIC HYDROLYSIS AT THE HEART OF THE PRODUCTION SYSTEM

More recently, ILSA has designed and fine-tuned two new industrial processes called FCH® (Fully Controlled Hydrolysis) and FCEH® (Fully Controlled Enzymatic Hydrolysis). FCH® involves thermal hydrolysis in a dynamic autoclave, with three different temperatures coming in sequence to break down the protein chains of collagen. The product of the FCH® process is jelly-like and goes through a further dehydrating process at low temperature (less than 100°C).

The FCEH® process consists of sequences of enzymatic hydrolysis that take place in one or more bioreactors at low temperature (not higher than 55-60°C). The pools of selected enzymes break down the long proteins of collagen into shorter parts--peptides, polypeptides and amino acids--in a controlled process. The pools act stereo-selectively and minimize the amino acid racemiza-

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tion. At the end of the process, the biological reactions are stopped and the product is stabilized by means of vacuum concentration.The final products have a high content of L-amino acids. As liquid fertilizers, therefore, they act as bio-stimulants and carriers.

A PRODUCTION CLOSE TO 100,000 MT OF SPECIALTY FERTILIZERS AND SALES CLOSE TO 20 MILLION EUROS

Today ILSA produces close to 100,000 mt of solid and liquid fertilizers per year, of which close to 15,000 mt of the Azoslow slow release nitrogen. Its factories, in Arzignano and Molfetta, cover close to 6 hectares.

The production is organized in four departments: solid fertilizers, organic and organo-mineral fertilizers, gelatin fertilizers (AGROGEL®), and liquid and water-soluble fertilizers.

The company holds a leading position in the Italian market. Exports have grown over the years to Europe, Africa, the Middle East and Asia. In 2004, some of ILSA's fertilizers were also registered for sale in USA. Altogether exports however represent less than 15% of the sales and are set to grow, with part of the demand driven by the increasing need for growers to comply with stricter environment friendly production techniques and by the growing demand for organically produced food.

Sales have steadily grown over the years, with an impressive acceleration since the turn of the century. Total sales were Euros 9 million in 1999. They have reached the 20 million level in 2006, of which close to 5 million generated by the subsidiary company ILSA Mediterraneo created in year 2000.

CLOSE TO 10% OF TURNOVER INVESTED IN RESEARCH: A UNIQUE CASE IN THE PLANT NUTRITION WORLD!

Research and innovation are the other two keywords in the company's "software". They are at every corner of every brochure, every interview but also more importantly at every corner of the company's daily's work and spending!

The research activity is twofold: The company has its proprietary industrial research programmes, not only on its core business of fertlizers but also on the development of the use of its production processes in other segments such as animal feed, the textile industry, plastics and also cosmetics.

The second part of the research is in the form of JV with public funding: the BIOVENUS programme, initiated in 2002 and concluded at the end of last year, was funded by the Ministry of industry, with ILSA investing about 2.6 million Euros of which 40% non subsidized . It aimed at designing the "fertilizers of the future" based on organic compost of natural origin (mostly from animal origin but also from plant residues). Another programme, called BIOFUL, is co-financed by the Veneto region and covers innovative technologies for the treatment of waste water. Within this project, the specific interest of ILSA is to develop from this raw material a new line of amendments and soil correctors high in protein, potentially usable in organic farming.

The future will tell whether all these investments were worth doing. One thing is for sure. ILSA has a vision and the company is using both its human and financial resources to develop in particular new products for organic and sustainable agriculture within a "total quality" policy. ■

AN INTERVIEW WITH

Paolo Girelli, President of ILSA

P. Girelli

Courtesy of P. Girelli

How long have you been in this position at ILSA and what is your professional & academic background?

My academic background covers 2 year of engineering, 3 years of business economics and a degree in communication sociology. I started to work for ILSA in 1982. From 1984 to 1986 I worked in the financial department. In 1986 I joined the board of Directors as sales manager. During the following years I spent my time in the development and the management of the company. Towards the half of the nineties I was nominated executive vice-president and since 2006 I am the president of the company.

You are investing more than Euros 2 million per year in research, i.e. close to 10% of your sales turnover. Isn't this almost "too much" for a company whose core business is plant nutrition or is part of this research serving future developments?

Since 1976, ILSA's emphasis on research, in cooperation with universities and other institutions in Italy and abroad, has enabled it to create exclusive technologies and a variety of new products that are innovative, efficient and environmentally safe. The investments in research and development have added to ILSA's reputation as a leader in the Italian market. Today we are ready to attack the international market in the field of organic farming and specialized agriculture. Only a small part of investments has been dedicated to the development of products in other fields such as cosmetics and zootechnics.

Exports represent only slightly above 10% of your sales, which is substantially below a number of other Italian companies in the same business. Is this because your products are difficult to export or because you have so far concentrated your efforts and finance more to research than to sales development?

Until today the demand of our domestic market has almost saturated our production capacity. With the recent building of a new factory in Bari and the launch of the new company ILSA Mediterraneo SpA that has a production capacity of 25.000 tons of solid fertilizers and 1million kg of liquid fertilizers, and with the development of the plants in Arzignano close to completion, we have now created the conditions to continue satisfying the demand in Italy and to support the growing demand in the international markets.

Which export markets do you regard as most promising for your products?

We are currently selling in 27 different countries all over the world; in the future the first objective will be to grow in these countries, developing the research and marketing activities to support our established distributors.

It looks like your propriétary process for thermal hydrolysis is the heart of the company. Doesn't such process open the door to launch other products than fertilizers, which could bring more cash revenue?

Actually, we are improving different processes of enzymatic and thermal hydrolysis to transform complex proteic substances into technical products suitable for different industrial applications. But our core business will remain bound to the nutrition and health of crops.

Which portion of your sales turnover is generated by professional sales to the broad acre and cash segments as comparred to the consumer and homegardeners sales?

Almost the entire production is sold in the field of professional agriculture. The consumer market doesn't represent more than 4-5% of our turnover.

You have joined the EU sanctioned Biovenus project in 2003. Where do you stand today with this project?

The Biovenus project ended at the end of last year. The overall investment was 2.6 million €. The research activity was focused on twenty three different organic raw materials of animal and vegetal origin. We developed nine new fertilizers that will be launched in the market during the next months . It was very important for us to develop new analysis methods to test the biostimulant activity of some hydrolyzed products.

Your turnover of about Euros 20 million positions ILSA as "big among the small companies" in this business around the world. Do you think you have the critical size to continue financing the global development on your own or will you be positively looking at partnerships, cross-shareholdings, etc?

Our activity doesn't go unnoticed. We have received interesting proposals from important Italian and international companies. With some of them, we have scheduled meetings during the next few months. We want to carry on along the way of growing by investing in the development of new technologies, new products and new markets. We will see in the next months if we will carry on alone or in good company!