



FIERAGRICOLA
111th International Agricultural Technologies Show

Fieragricola: focus on the Council for Research and Experimentation in Agriculture (CRA)

AGRO-FOODS CULTURE STUDY WEEK CRA RE-LAUNCHES RESEARCH IN THE PRIMARY SECTOR

Interview with Prof. Giuseppe Alonzo, President of the Authority responsible for creating synergies for innovation to benefit the agricultural world. It was thanks to the CRA that the blue potato rich in anthocyanins was promoted as well as the latest generation food processing technologies, at the same time as studying an oil tracking system capable of unmasking the counterfeit Made in Italy products. But no GMO. "It's a pity," said the Professor, "since research into GMOs should in any case be carried forwards, even in Italy. Politics should make its choices on the basis of the science."

Verona, 30 January 2013. Fifteen centres and 32 research units for 437 research projects currently underway. These are just some of the numbers of the Council for Research and Experimentation in Agriculture (CRA), which reports to the Ministry for Agricultural, Food and Forestry Policies. Its president is **Professor Giuseppe Alonzo** who, in an interview with Fieragricola-Veronafiere, re-launched the idea of setting up a "Food Culture Week: an event not talking about cuisine but, rather, nutrition and health and other aspects concerning appropriate nutrition in order to encourage and promote correct educational models. We should not forget," Alonzo went on, "that 12% of children in Italy suffer from obesity, while an increasing number of youngsters are overweight, with worrying consequences for health".

The idea is to set up an appointment, scheduled in April or May, "when Universities and schools can be actively involved".

In the meantime, CRA continues its activities ("we conduct research with the aim of supporting agriculture through innovative processes and practical benefits," Alonzo pointed out), despite the cuts imposed by the spending review, which has reduced the Centre's staff 10%. In 2012, the CRA set aside "1.5 million euros to employ - through an open competition and for a period of two years - 36 research fellows," said the President. Unfortunately, a system blocking turnover at 20% of retirements was imposed on us - in other words, for every 10 retirements only two people are replaced. And this creates imbalances in the research team, since - when a project manager leaves - the entire working group is orphaned".

Through its departments, the CRA identifies tasks for steering, promoting and coordinating the scientific and technological activities of research centres into complex topics ranging from biology and plant production, to animal production, processing and development of agro-industrial products, agronomy, forestry and local areas.

Recent results include data published about the blue potato rich in anthocyanins. "It has always existed in nature," Prof. Alonzo pointed out, "but not in marketable sizes. Thanks to CRA research, we managed to obtain a marketable size of 120-130 grams." OGM-free, of course, although the President of the Council for Research and Experimentation in Agriculture openly expresses his position in this regard: "The scientific aspect never must be obstructed because science can help solve tomorrow's problems. This is why GMO research should be continued, whereas today Italian GMO research is at a standstill".

In the field of fruit-growing sector, the Caserta research centre is working to fight kiwi bacteriosis. "We have managed to decode the DNA of the bacteria in order to understand its geographical origin and fight it. We have a series of experiments that hopefully will produce their results by next Summer," Alonzo announced.

As for future projects, Alonzo believes that work must move towards "producing fruit that is increasingly popular with consumers - consequently, either with fewer seeds or by developing hybrids that blend the various properties of several more fruits into a single solution, combining the nutritional qualities of two different species."

CRA undertakes wide-ranging research that also covers engineering: the centre in Treviglio (Bergamo) tests tractors.

In animal farming terms, next March 21 will see headquarters of CRA-PCM in Monterotondo (Rome) host the presentation of a two-stage pilot plant designed and built in collaboration by CRA and Enea for the production of hydrogen and methane from livestock waste, particularly cattle and pig slurry mixed with scraps cheese processing waste," said **Riccardo Aleandri**, Director of the Department of Biology and Animal Production. CRA is also involved in the field of sustainability in animal farming, with research targeting the use of "mycorrhizae" in maize mono-cultures and pastures for forage production, the reduction of phosphorus in cattle feed as a way of limiting environmental impact, in the field of verification of new technologies for increasing the birth of females in the "bufalina" species. In addition, said Aleandri, "we are working to set up an international consortium involving research authorities and small-medium businesses in Austria, Belgium, Canada, Denmark, Germany, Great Britain, Italy, Poland, Rumania, Spain and South Africa. The goal is to perfect identification of microbial populations better suited to produce hydrogen and methane from livestock waste and use them in next-generation plant."

One of the activities to which the Department for Processing and Promotion of agro-industrial products directed by **Paolo Ranalli** is particularly committed concerns innovative food processing technologies, such as fourth and fifth range. "We are studying so-called mild technology as a way to retain the quality of the raw materials," said Ranalli, "and we have developed miniaturised machines that can process very small amounts of product and operate at single company level using solar energy."

Another of the Department's research frontiers is linked to product traceability through the identification and characterisation of metabolites associated with the origin of each product and the type of industrial or distribution processing involved in the sales process. This can be achieved through the application of recent innovations in the fields of genomics and metabolomics.

"Within the scope of the olive-olive oil value chain," Ranalli highlighted, "we are developing research into quality and traceability by studying alkyl-esters, a category of metabolites which make it possible to distinguish olive oil definitely of Italian origin from other olive oils that are not. This research will be very useful to police investigating adulterated produce and services responsible for preventing fraud and protecting produce *Made in Italy*."

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