

## Foreword to this EJS special edition on the Congress of Agro Informatics (CAI)

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Argentina is widely recognized as an international leader in the technological development of its agro-industrial sector, which in recent years has exploited the innumerable opportunities that the explosion of Information and Communication Technologies has offered it. This situation is clearly reflected in the growing offer of national competitions aimed at stimulating "AgTech" entrepreneurship proposals.

Therefore, it is relevant to highlight different scientific and technological groups from different institutions in our country led by INTA, which have been contributing silently and without pause to the subject by generating technological capacities, articulating financing and interdisciplinary actions in a creative way that provide the current national capacities to imagine "Agtech" developments such as those mentioned. In this edition it is intended to rescue the testimonies of these valuable group contributions in the form of "position papers", for which we made a broad call, and from those interested in the proposal, progress was made with the development and peer evaluation of the articles that constitute this document.

Having already reached the 11th Edition of the Congress of Agro Informatics (CAI), it seems relevant to us to briefly rescue its origin. The first idea of its creation arose during the 36 JAIIO held in Mar del Plata in August 2007, jointly by SADIO and the Universities FASTA and CAECE. The JAIIO already worked in multi-event mode bringing together a number of disciplinary symposia, technological meetings and a student contest. The president of SADIO at that time, Dr. Alan March, Chair and organizer of the Symposium on Informatics and Health, was

convinced of the importance of "vertical symposia" as an "applied" complement that balanced the disciplinary tradition of the congresses, and convinced in turn Eng. Agr. and Systems Analyst Marcelo Bosch (INTA) of the need to add to the set an event related to the agricultural sector, since there was no academic-technological space in the agro-computer interface until now. It is necessary to highlight the gratitude to the SADIO authorities of the moment and of more recent times, who always bet on the idea, among them Alan March, Rosita Wachenchauser and José Carlini.

INTA had already been applying a growing number of computer technologies since the 80s. The events closest to this idea were the Precision Agriculture Conference organized by INTA at the Manfredi Agricultural Experimental Station and the Brazilian Congress of Agroinformatics organized by the Brazilian Society of Agroinformatics. With these ideas and background, Eng. Bosch transferred the concern to the INTA authorities and obtained the necessary institutional support to involve technicians and researchers. The difficulties were many, given the lack of recognition of the "hybrid" space that was proposed and the lack of academic background of INTA's computer scientists. Thus begins a long path of professional growth, where the role of the Congress (CAI) would be fundamental, by the contacts, the confluences of disciplines and technologies, the relationship with the other symposia and congresses within the JAIIO and by the institutional and international relations. An additional difficulty was to assemble a set of reviewers who were able to handle the hybrid applications presented in the papers and posters; it was necessary to have the double look, which quickly led to a double agronomic-computer review.

The coordination experience of the early years was both exhausting and fascinating, the result of an explosion of interactions with disciplines and researchers so far removed and diverse from classical agronomic issues. Topics such as neural networks, fuzzy logic, artificial intelligence, telecommunications, networks, satellites, positioning, bioinformatics, image recognition, signals and robotics, appeared in field work of the most varied, covering numerous crops and livestock activities. The world of agriculture and ICTs had collided and a kind of technological big-bang began before the young researchers who have made possible the current expansion.

Thus, over the years and the editions of the JAIIO, the CAI was installed as that meeting space for those who are specifically dedicated to that technological interface, but also for the most restless agronomists and producers who were already anticipating what was later called the AgTech, in search of innovative technologies that would exploit the growing flow of data, computing capacity and the expansion of communications networks. Different editors of the successive CAI were added in order to consolidate the space that revolved around different regions capitalizing on robust capacities of the interior of the country, incorporating in the last editions the look of diversity and inclusion in the congress.

This document is composed of five (5) technical contributions and two evolutionary analysis of the 10 CAI congresses, one oriented to the geographical and inter-institutional contribution and finally a gender analysis on the same period.

1. Modern precision irrigation management tools based on electronic devices, computer programs and automatic control techniques. Flavio Capraro and Santiago Tosetti.
2. Agronomic Information for Precision Agriculture generated in the EEA Paraná of INTA. Alexandra Kemerer; Ricardo Melchiori; Susana Albarenque.
3. Exploration of innovations in meat production systems with simulation models: interdisciplinary experience and application opportunities in the Internet of Things paradigm. Claudio F. Machado; Mauricio Arroqui; Pablo Mangudo; Juan Rodriguez Alvarez; Cristian Mateos; Alejandro Zunino.
4. Harvesting Data. Developments for agriculture in the digital age Yanina Bellini Saibene; Juan Caldera; Lucas Ramos.
5. Electronics and Agroindustrial Systems - New techno-productive paradigm. Andres F. Moltoni; Luciana A. Moltoni; Nicolas Clemares.

6. Ten Years of the Argentine Congress of Agroinformatics: A Historical Analysis of Geographical Scope and Collaboration Networks. Sandro da Silva Camargo; Leonardo Bidese de Pinho; Marcelo Horacio Bosch; Claudio F. Machado; Yanina Bellini Saibene.
7. Analysis of women's participation in 10 years of the Agroinformatics Congress in Argentina. Yanina Bellini Saibene, Marina Cock; Anabella Lozza.

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