Preface

The 10th International Conference on Precision Agriculture

It is a great pleasure to welcome all the presenters, exhibitors, sponsors and participants to the 10th International conference on Precision Agriculture (ICPA) in Denver, Colorado. This year's international conference is a landmark event in the history of ICPA. We are completing 20 years of existence and are morphing into a scientific and professional international society called International Society of Precision Agriculture (ISPA). Let's take a quick look into the history of ICPA.

The ICPA started as a small workshop in the early 1990s. The first conference (rather workshop) was held from April 14 to 16th at the Sheraton Airport Inn in Minneapolis, MN. It was called "Soil Specific Crop Management: A workshop on Research and Development Issues". There were a total of 43 presentations and 173 participants from six countries at the workshop (Table 1). It was clear that there was a strong interest in the new (at that time) discipline of Precision Agriculture. Under the leadership of Dr. Peirre Robert, who was the ICPA chairperson from 1992 to 2000, the conference grew to 203 presentations and 807 participants representing 19 countries by 1998. That was the highest number of participants ICPA has witnessed to date. Such an unprecedented increase in participants was a direct reflection of a new track that ICPA introduced in 1998 called "*Precision A to Z for Practitioners*". Interestingly, a majority (over 50%) of the participants in the 1998 conference were practitioners, crop advisors, consultants, agents, ag retailers, etc.

In the year 2000, the number of presentations saw an increase to 233 papers, highest in the history of the ICPA. However the number of participants observed a 12% drop to about 700 (Table 1).

Table 1. Historical snapshot of International Conference on Precision Agriculture

ICPA	Year	Chairperson	Presentations	Participants	Countries
1 st	1992	Dr. Pierre C. Robert	43	173	6
2^{nd}	1994	Dr. Pierre C. Robert	72	347	8
3^{rd}	1996	Dr. Pierre C. Robert	147	570	12
4^{th}	1998	Dr. Pierre C. Robert	203	807	27
5 th	2000*	Dr. Pierre C. Robert	233	714	18
6^{th}	2002	Dr. David Mulla	199	523	25
7^{th}	2004	Dr. David Mulla	176	455	25
8^{th}	2006	Dr. David Mulla	136	300	NA
9 th	2008	Dr. Rajiv Khosla	231	488	43
10^{th}	2010	Dr. Rajiv Khosla	258	>400	42**

^{*} Precision A to Z Track for Practitioners was introduced this year

NA: not available

^{**} At the time of publishing the CD-Rom Proceedings

With the sudden passage of Dr. Peirre Robert, the ICPA responsibilities were directed upon Dr. David Mulla, who was the ICPA Chairperson from 2002 to 2006. The loss of Dr. Pierre Robert took a toll on the conference. The ICPA went into a downward trajectory till 2006, the 8th ICPA, when there were only 136 presentations and about 300 participants. Prior to 2008, the conference was hosted by the University of Minnesota. It was time for a change, change of location, leadership, organizing committee, programming and more.

After the culmination of the 8th ICPA in Minnesota, ICPA embarked upon a new journey. I was appointed as the 3rd Chairperson of the ICPA and I accepted the task with great respect. It was an opportunity to rejuvenate the conference and to implement creative changes. With the input and advice from the national NCERA-180 Precision Agriculture group in the USA and several members of the international precision agricultural community, I implemented several changes. They were:

- (i) Location of the conference was changed to Denver, Colorado.
- (ii) An event organizing company was hired to assist with the conference logistics.
- (iii) P.C. Robert Precision Agriculture Senior and Young Scientists Awards were instituted.
- (iv) Precision Agriculture Outstanding Graduate student awards for 10 graduate students were instituted.
- (v) Symposia style, theme based "Thematic Sessions" were initiated in the conference. Thematic sessions such as "Precision Conservation" and several others provided an opportunity and platform to invite scientists and professionals who other wise may not attend the conference.
- (vi) The 2010 conference will host seven thematic sessions. Among the seven thematic sessions, Precision Carbon Management, and Precision Livestock Management are being organized for the first time in the history of ICPA. Thematic sessions have broadened the scope of the conference and have attracted more non-traditional scientists/professionals and other participants to the conference.

The 9th ICPA conference saw an increase in the number of presentations to 231, a level similar to the year 2000. The number of registrants and countries represented increased significantly compared to the 8th ICPA (Table 1).

The 10th ICPA conference attracted more than 300 paper submissions. At the time of publishing the CD-Rom proceedings, there were 258 confirmed presentations with over 400 participants representing over 40 countries from around the world. This is the highest number of papers ever presented in the history of the ICPA. It is unfortunate that a significant number of our foreign delegates had to withdraw their papers due to delay in visa processing in their respective countries.

International Society of Precision Agriculture (ISPA)

After assuming the position of the ICPA Chairperson in 2006, I had an opportunity to visit several countries (Canada, China, Greece, Germany, India, Mexico, Netherlands, Saudi Arabia, and others) as a part of my sabbatical leave from Colorado State University, and also in response to the invitations from international colleagues for potential research collaborations. In my travels and via personal interaction with international colleagues, I was repeatedly asked about Precision Agriculture and how it could be relevant for lesser developed countries. I experienced inquisitiveness and a strong desire to learn about Precision Agriculture among the international colleagues. I realized that we do not have a repository or an entity or a location from where one can acquire information about various aspects of precision agriculture from around the world. This thought process in my mind gave birth to an idea of creating an "International Society of Precision Agriculture" (ISPA). A society that will bridge the information gap among the members around the world.

In 2008, at the 9th ICPA conference, I shared the idea of organizing the ISPA with some my colleagues plus we asked the entire audience via conference evaluation questionnaire regarding their interest in an ISPA. There was an overwhelming response in support for creation the new society, "International Society of Precision Agriculture". In a formal meeting with scientists and colleagues representing six countries (Chili, Japan, India, Israel, Italy, and the USA) we together signed a "declaration of intent" for the creation of ISPA (See attached). I was appointed as the Interim Chairperson of the ISPA working group and was entrusted with the responsibility of furthering the establishment of the ISPA.

In the last two years, I have reached out to many of you with the intent to engage and seek your input for the creation of the ISPA. I also met several times with Springer© to institute a partnership with them and designate the International Journal of Precision Agriculture as the ISPA journal.

I am pleased to share with you that; (i) ISPA was officially registered as a society in June of 2010, (ii) Springer©, agreed to designate the Journal of Precision Agriculture as the society's journal, (iii) ISPA domain name has been purchased as www.internationalsocietyofprecisionagriculture.org, (iv) a preliminary web-page has been created, and (v) Dr. Dwayne Westfall, Professor, Colorado State University, assumed the responsibility of the Chair of the Nomination Committee to accept the nominations, conduct the officer elections, and establish the first set of ISPA board members consisting of the ISPA President, President Elect, Secretary and Treasurer. Officer elections will be conducted at the 10th ICPA conference and they will be installed at the first business meeting of the International Society of Precision Agriculture in Denver on July 21st, 2010.

This is an exciting time for the international precision agricultural community. I am optimistic that ISPA will connect members from near and far and the society will play

a vital role and have an indelible impact in meeting the grand challenges of our times, (i.e.) the environment, energy, global food security and the healthcare.

I look forward to seeing you at the 10^{th} International Conference on Precision Agriculture and at the first business meeting of the International Society of Precision Agriculture.

Rajiv Khosla Chairperson of the 10th International Conference on Precision Agriculture Professor of Precision Agriculture, Colorado State University, Fort Collins, CO, USA

July 2010

Declaration of Intent to Form the INTERNATIONAL SOCIETY OF PRECISION AGRICULTURE

July 23, 2008

WE, the undersigned, met as a group on July 23rd, 2008 at the 9th International Conference on Precision Agriculture (ICPA) meeting in Denver Colorado to discuss the opportunity and feasibility underlying the formation of an International Society of Precision Agriculture (ISPA). We agreed the mission of ISPA is to advance the science and practice of precision agriculture globally. To initiate this process of forming ISPA, we support the following immediate actions:

- 1. Create a Working Group under the auspices of the ICPA.
- 2. Authorize the current conference chair of ICPA, currently Dr. Rajiv Khosla to serve as the interim chair of the ISPA Working Group.
- 3. Pursue the identification of a supporting organization and/or the formation of a 501.C.3 organization that can facilitate the financial aspects of ISPA.
- 4. Engage the global precision agricultural community in the ISPA formation process.

John H. Grove

Jewell R. Kithe

David A Mula

Dr. Bruno Basso, Italy

Dr. David J. Bonfil, Israel

Dr. John H. Grove, United States

Dr. Rajiv Khosla, United States

Dr. Newell R. Kitchen, United States

Dr. David J. Mulla, United States

Dr. Rodrigo Ortega, Chili

Dr. V. C. Patil, India

Dr. Francis J. Pierce, United States

Dr. Sakae Shibusawa, Japan

Dr. Dwayne G. Westfall, United States