ISPA Newsletter 12(7): 16th ICPA Thank You, ISPA Board, CR Report, Jobs, Events and more

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ISPA

International Society of Precision Agriculture

MONTHLY NEWSLETTER

16th ICPA Thank You

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ISPA Board of Directors

Thank you to our ISPA members who voted in the 2024 ISPA Board Election. The results were announced at the 16th International Conference on Precision Agriculture Closing Session. Learn more about our 2024 ISPA Board here.

2024 ISPA Board of Directors

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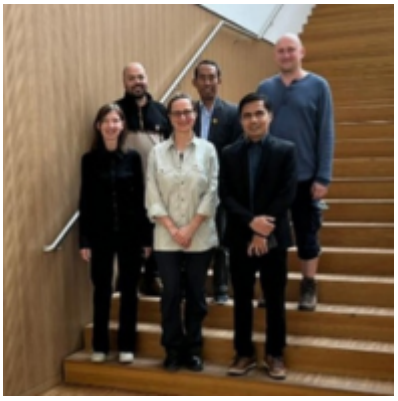
Strengthening Smallholder Farmers: Indonesia and Germany's Precision Agriculture Partnership




Authors:

1. Prof. Bayu Taruna Widjaja Putra (ISPA, Country Representative of Indonesia)
2. Dr. Manuela Zude-Sasse (ISPA, Country Representative of Germany)

"Indonesia has extraordinary natural wealth potential, but on the other hand, we also face major challenges in the form of reduced agricultural land and climate change which have the potential to reduce the productivity of the agro-industrial sector. This requires innovative and efficient solutions to ensure food security and agricultural sustainability in the future. One answer to this target is the application of precision agriculture based on advanced information and communication technology (ICT) to gain and transmit plant data to the farmer. Plant data can form the basis for field adjusted management in plantations, especially under varying environmental conditions that we face with global warming. The insitu plant data can support decision making based on the actual requests in the field. By means of adjusted agricultural management we want to follow the common goal of optimizing the use of natural resources, increase efficiency, and reduce food waste. "In this way, we can not only increase productivity but also maintain the sustainability of the agricultural sector in the future." said Prof. Bayu Taruna Widjaja Putra, Professor in the field of precision agriculture from the Department of Agricultural Engineering, University of Jember (UNEJ), who is also the Country Representative from Indonesia in the International Association of Precision Agriculture (ISPAG).

Currently, precision agriculture in Indonesia is still in the research and development stage, with its implementation being more dominant in large companies. This is due to the high cost of the sophisticated equipment required which makes this technology difficult for small farmers to access. Apart from that, limited technical capabilities among small farmers are also a major obstacle in the adoption of precision agricultural technology. As a result, the application of precision agriculture is not evenly distributed and is still concentrated in segments of the agricultural industry that have more resources. Small farmers, who are the majority in Indonesia, still rely on conventional, mostly subjective methods. Therefore, initiatives to expand the use of precision technology among small farmers are very important in increasing the productivity and sustainability of the agricultural sector in

Indonesia.

In developed countries in Europe, precision farming has developed rapidly and become part of modern agricultural practices. The choice to use ICT in the agricultural sector has become common place. Thanks to the support of good technological infrastructure and easier access to funding and training, farmers in European countries are able to adopt precision agricultural technology. However, validation of plant sensor technologies and accessibility of the data in a digestible form is still under development. In Europe, governments and academic institutions play a major role in supporting research and development of precision agriculture technology. Many subsidy programs and incentives are provided to farmers to adopt new technologies, as well as cooperation between the public and private sectors that encourage innovation. This is different from conditions in Indonesia, where technology adoption is still hampered by high costs and technical limitations among small farmers. Additionally, in Europe, training and education regarding precision agricultural technology is more structured and easily accessible, with many educational institutions offering specialized courses in this area.

As part of national efforts to advance the agricultural sector, the University of Jember (UNEJ) with the vision "To become a superior university in the development of environmentally sound science, technology and arts, business and industrial agriculture" also supports the development of technology for industrial agriculture. UNEJ is committed to developing technology that can be applied in industrial agriculture, especially for small farmers. Through the Center of Excellence on Artificial Intelligence (AI) for Industrial Agriculture and the Laboratory of Precision Agriculture and Geoinformatics, UNEJ is actively conducting research related to precision agriculture.

Through a meeting that took place in Germany, Prof. Bayu Taruna Widjaja Putra, with Dr. Manuela Zude-Sasse from the Leibniz-Institute for Agricultural Engineering and Bioeconomy (ATB), who is also the Country Representative of Germany in ISPAG. This meeting discussed various important aspects of cooperation in developing precision agricultural technology, especially to support small-holder farmers. This meeting marked an important step in collaborative efforts to introduce advanced technologies and precision farming practices to smallholder farmers. The discussion focused on how precision farming technology can be adapted to local conditions and implemented effectively for small-holder farmers. The plant data need to be gained reliably at limited cost and transmitted to the farmer in digestible format. Consequently, this collaboration includes several main initiatives focused on joint scientific and practise publications, as well as the development and adaptation of technology to suit the specific conditions of small-holder farmers. Through this collaboration, it is hoped that precision agricultural technology can be more easily accessed and adopted by small farmers. This step is part of a long-term vision to create a more modern, efficient and sustainable agricultural sector.

Upcoming Events

25-27 FEB 2025
GIS & Drone Applications in Agriculture Conference

29 JUN - 3 JUL 2025
15th European Conference on Precision Agriculture
Barcelona, Spain
ecpa2025.upc.edu/

22-31 AUG 2025
XXXII ISSCT Centennial Congress

Cali, Colombia
issctcennial.com/

14-16 OCT 2025
11th Asian-Australasian Conference on Precision Agriculture
Chiayi, Taiwan
ispag.org/Events/ACPA

2-4 FEB 2026
International Crop Modeling Symposium (iCROPM2026)
Florence, Italy

Week of 13 JUL 2026
17th International Conference on Precision Agriculture and the 11th Brazilian Congress on Precision Agriculture
Porto Alegre, Brazil
ispag.org/icpa

See the ISPA website for a complete list of events.
Do you have an event that would be of interest to our members? Send us an email to let us know.

Jobs Listing

- Postdoc in Digital Agronomy for Climate Resilient Perennial Agriculture
- Tenure Track Assistant Professor in soil spectroscopy at Department of Agroecology, Aarhus University
- Assistant or Associate Professor of Extension Soil Management - University of Kentucky - Department of Plant and Soil Sciences
- Precision Agriculture Technologies Extension Specialist - University of Tennessee - Biosystems Engineering and Soil Science
- Assistant Professor (Extension) - Mississippi State University - The Department of Agricultural & Biological Engineering
- University of Georgia - Assistant Professor - Extension Specialist Precision Agriculture Systems

Do you have a job you would like to post to the ISPA website? Please send your job announcement, a short description, and cutoff deadline for applications to info@ispag.org

Contribute to the ISPA Newsletter

Do you have a precision ag event, project, or news article that our members would be interested in? Please let us know. We post events, job opportunities, and news from members from around the globe. Email info@ispag.org or use the handy online form to submit your contribution.

Stay Up To Date with ISPA on Social Media!

Be sure to follow ISPA on Twitter and LinkedIn to remain up to date with what the society has to offer. If you're posting about precision agriculture and would like to reach our international community, please add #ispag to your post.

Precision Agriculture Definition

Precision Agriculture is a management strategy that gathers, processes and analyzes temporal, spatial and individual plant and animal data and combines it with other information to support management decisions according to estimated variability for improved resource use efficiency, productivity, quality, profitability and sustainability of agricultural production.

The International Society of Precision Agriculture (ISPA) is a non-profit professional scientific organization.
The mission of ISPA is to advance the science of precision agriculture globally.

Contact newsletter@ispag.org to suggest content for future newsletters or visit www.ispag.org for more about the Society