



## Precision Agriculture in Israel

Israel has a history of high tech agriculture innovation. Drip irrigation was invented in Israel in the 1970s. It is a hot spot for ag tech start-ups and PA research. But overall adoption of PA technology, except for soil moisture sensors for irrigation management, seems similar to that of Europe. Global Satellite System Navigation (GNSS) guidance is popular and a standard feature on newer & larger equipment. A few farmers are trying out variable rate input application. Use of plant and soil sensing, except soil moisture sensors, is rare. This note highlights some information gathered from researchers and extension staff in Israel with the help of ISPA member David Bonfil, of the Agricultural Research Organization (ARO), Gilat Research Center, Israel. To put the information below in context it is useful to know that Israel has about 200,000 ha of field and annual vegetable crops of which about 50% is wheat, and about 100,000 ha of orchards and vineyards. The current PA situation is:

- Overall, about 30% of farmers use GNSS autosteer and 10% use lightbars, but 75%-85% of large combines, tractors and sprayers use the technology.
- About 10% of existing sprayers and most new sprayers use GNSS boom control
- Yield mapping is used for grains, grapes and olives. About 95% of grain, grape and olive harvesters are equipped with yield monitors and 60% of farmers do yield mapping. There is one combine with a grain protein sensor.
- About 50% of farmers use satellite images. Drone imagery is used on about 30 farms. .
- About half of arable land in Israel can be irrigated and because water is scarce about 50% of farmers use soil moisture sensors to manage irrigation. Few farmers use other types of soil or plant sensors. There is only one commercial electro-conductivity mapping machine in the country.
- Most farmers do whole field soil sampling if they do any soil sampling at all. Perhaps 2% of farmers do soil sampling by management zone and grid sampling is almost unknown.
- Variable rate application of nitrogen fertilizer is used by about 5% of farmers. A few farmers use site-specific weed management and precision guided cultivation.
- Dairy automation including robots for milking and feeding is used on about 50% of dairy farms.

*Note: I have been seeking information on precision agriculture (PA) adoption worldwide. Ideally, this comes in the form of published statistics for the farm sector collected with standard random sample procedures by a credible public organization. For PA that kind of information is rare. Data collected in other ways (e.g. surveys focused on specialized groups of farmers, interviews at farm shows, volunteers responding to an internet link) is useful with the representativeness taken into account. Industry reports, expert opinion from researchers, academics and extension staff, and other information can be useful. It is my opinion that some data is better than guessing, as long as we understand the source and nature of the data. Please send comments on the information from Israel*

above and data on PA in your country to me at [president-elect@ispag.org](mailto:president-elect@ispag.org).

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## VISION Conference

If your success rests on accurate projections of the continuing rise of precision agriculture and digital farming, the [PrecisionAg® VISION Conference](#) is an event you won't want to miss. **January 14-16, 2019 Hyatt Regency Lake Washington, Seattle, Washington, USA.**

Organizers have curated a [comprehensive agenda](#) full of remarkable insight from [strategic leaders](#) in crop production throughout North America and beyond. Gain market-tested perspective and context on just how much of a game changer the latest advancement in precision agriculture and digital farming will be.

[Register by November 16th for early registration discounts](#)

### 2019 Conference Takeaways

- Gain the strategic competitive advantage of taking a forward look at agriculture's future and anticipating the many changes that will transform your business over the next three to five years.
- Gather with a full spectrum of progressive agriculture leaders and make enduring contacts that will last for years to come.
- Identify your own tech handicap, review emerging and disruptive technological developments, discuss their likely impacts, and prepare for the future of precision and digital farming.

## PREGA SCIENCE 2019

### PREGA SCIENCE 2019 - International Conference on Precision Agriculture and Agro-Informatics

**February 19, 2019 in Budapest**

PREGA SCIENCE 2019 conference will be organized for the third time in 2019. Scientists from Hungary and the surrounding countries are invited to report on their achievements and scientific results regarding precision agriculture.

The aim of the conference is to inform the agricultural sector key players in the Central and Eastern European region about the novelties regarding PA. The organizers wish to build the bridge between science and practice, therefore parallel to the scientific conference, the first day of PREGA 2019 - Hungarian Conference and Exhibition on Precision Agriculture - will be organized. Participants are welcome to visit both events.

In 2017, on the first PREGA SCIENCE conference 21 papers, in 2018 two keynote presentations and 20 papers were accepted and presented to the audience of 130 scientists.

The scope and topics of the conference in this year are:

- Precision Agriculture
- Site-Specific Nutrient, Lime and Seed Management
- Precision Crop Protection
- Satellite and UAS based Remote Sensing of Soil and Crop
- Variable Rate Irrigation
- Geostatistics, mapping and spatial data analysis
- On Farm Experimentation with Site-Specific Technologies
- Decision Support for Precision Agriculture
- Precision Horticulture
- Precision Viticulture
- Economics of Precision Agriculture

Ian Yule (NZ) president of the International Society of Precision Agriculture (ISPA) and Dr. Terry Griffin (USA) will present the results of their work.

## 5th Global Workshop on Proximal Soil Sensing

Dates: 28-31 May 2019

Location: Columbia, Missouri, USA

Website: [www.pss2019.org](http://www.pss2019.org)

Dating back to 2008, the GWPSS provides a venue for exchanging research and application information related to all aspects of proximal soil sensing. With the theme of “Linking Soil Sensing to Management Decisions,” the 2019 workshop will include keynotes, oral and poster presentations, and a field day with equipment demonstrations.

Abstract submission deadline is **December 15, 2018**.

Please [visit the website](http://www.pss2019.org) for more details and to submit your abstract.

## 12th ECPA - Deadline Updates

Dates: 8-11 July 2019

Location: Montpellier, France

Website is <http://ecpa2019.agrotic.org>

The French organisers are pleased to welcome the return of the ECPA conference to France and to Montpellier. The conference will continue with the successful format of previous conferences of building in strong industry sessions and participation. Taking advantage of the location of Montpellier on the Mediterranean coast, this 2019 edition will be an opportunity to focus on precision farming applied to small Mediterranean farms. Of course, oral and poster presentations will be welcomed from authors on any precision agriculture topic, though particularly welcome on the list of topics shown in the Programme section. All prospective authors and presenters should view the ‘Key Dates’ section to ensure they can meet the deadlines.

If you have any queries, please email: [ecpa2019@agrotic.org](mailto:ecpa2019@agrotic.org)

### Key Dates

- Authors have been notified regarding their submissions.
- Full papers (8 pages) will then be required by **9 December 2018**.
- February 2019 – return of reviewed papers and confirmation of acceptance.

- A final deadline for submission of finalised papers will be set with the proceedings editor and will be notified shortly.
- Poster abstracts must be received by Wednesday **1 May 2019** to be accepted.
- Editorial work to ensure poster abstract they can be submitted to the book of abstracts must be completed by Friday **31 May 2019**.
- Registrations will open shortly.
- Closing dates for early bird registrations will be the **15 March 2019**.
- The closing date for final registrations, will be confirmed later.

## InfoAg 2019

The InfoAg conference will be held **July 23-25, 2019** in St. Louis, Missouri, USA at the Union Station.

InfoAg features a full program of concurrent presentation on how technology is being applied to food, fiber, and fuel production. Speakers range from agronomic researchers, engineers, and economists, each with a practical application of how they are using technology to improve production on the farm and in their business.

InfoAg also features an exhibit hall of over 100 vendors featuring hardware, software, and precision ag services.

Learn more about InfoAg at [infoag.org](http://infoag.org)

## 2019 NUE Workshop: Developing Tools Adaptive to Wicked\* Nitrogen

2019 NUE Workshop: Developing Tools Adaptive to Wicked Nitrogen will be held **August 5-7, 2019 in Columbia, Missouri, USA.**

\* wicked: a problem that is challenging to solve because of incomplete and changing requirements that are often difficult to recognize.

- **Network:** Get to know industry representatives, scientists, and graduate students. Share research from all across the continent.
- **Compete:** Graduate student activities will include a poster contest, video contest, drone races and a data-cloud exploration competition.
- **Present:** Potential volunteer oral presentations should submit author name and working title to Newell Kitchen at [Newell.Kitchen@ars.usda.gov](mailto:Newell.Kitchen@ars.usda.gov).
- **Explore:** The workshop will feature guided research visits to the Duley-Miller Erosion Plots and Sanborn Field - the oldest experimental plot west of the Mississippi River.

for more information visit, [www.nue2019mo.org](http://www.nue2019mo.org)

## 8th Asian-Australasian Conference on Precision Agriculture

**Oct 15, 2019 to Oct 17, 2019**

Preliminary notice was given that the next ACPA, ACPA 2019 will be held at the Punjab Agricultural University between October 15 and 17th 2019. The contact person for the conference is Dr Manjeet Singh, [manjeetsingh\\_03@pau.edu](mailto:manjeetsingh_03@pau.edu).

Conference Website: <http://8acpa.org.in/index.php>

#### IMPORTANT DEADLINES

Online Registration open

31 JANUARY 2019 - Deadline for Abstract Submissions

30 MARCH 2019 - Abstracts reviewed and acceptance letters sent

01 JUNE 2019 -Deadline for full paper submissions

01 JULY 2019 - Early registration discount ends (Register by this date for lower registration fee)

### 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](mailto:info@ispag.org) or use the handy [online form to submit your contribution](#).

#### 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](mailto:newsletter@ispag.org) to suggest content for future newsletters or visit [www.ispag.org](http://www.ispag.org) for more about the Society