

EVENT BOOKLET

CropLife Asia Drone for Pesticide Application Online Forum

8-10 March 2021

DAY 1

8 March 2021 10 AM - 4 PM

(Singapore Time)

DAY 2

9 March 202110 AM - 4 PM

(Singapore Time)

DAY 3

10 March 2021

10 AM - 2 PM

(Singapore Time)

Updated as of 04 March 2021

Table of Contents

Event summary	<u>1</u>
Forum agenda	<u>2</u>
Forum speakers	<u>6</u>
Frequently Asked Questions (FAQs)	<u>13</u>
About CropLife Asia	14

Event summary

Drones for pesticide application is rapidly growing in popularity in Asia, for its advantages in efficiency, spray precision and labour-savings. However, as a new technology, there are still many areas that we need to understand better to improve its safety and effectiveness.

CropLife Asia's inaugural forum on drones for pesticide application will bring together government and industry stakeholders to exchange their experiences in using this technology and the benefits it has brought to farmers in Asia.

Day 1

The government perspective

- Digital transformation and its impact on government agricultural policies
 India and China share how their governments integrate and enable drones in agriculture policy
- 2. Regulatory frameworks for pesticide application by drone around Asia Pacific
 Regulators from regions leading in drone adoption share their best practices to ensure efficacy and safety of drone pesticide application
- 3. Safety Standard Operating
 Procedure (SOP) for pesticide
 application by drone
 Both regulators and industry
 share standards on crop, farmer
 and environmental safety

Day 2

The field perspective

- 1. R&D: Technology enablers for pesticide application by drone
 Drone manufacturers share the research and development that goes into their manufacturing towards the safe and effective use of drones for pesticide spray
- 2. Commercial adoption of drone for pesticide application in APAC Case studies from various countries and crops, and the benefits it has brought to farmers in Asia

Day 3

The future perspective

- 1. Emerging technological advancements in drone for pesticide application
 Leading drone manufacturers share exciting digital innovations we can expect to see in the future and their impact on farmers and the wider economy.
- 2. Roundtable: Future
 collaborations to drive best
 practices in the region
 How can government and
 industry address the existing
 gaps to advance the use and
 benefit of drones in agriculture
 in Asia Pacific and globally?

Who should attend?



Policy-makers and regulators in civil aviation and agriculture



Academics and researchers interested in drones for pesticide spray



Drones and pesticide manufacturers



Spray service providers

Forum Agenda

DAY 1 8 March 2021, Monday (10:00 AM – 4:00 PM Singapore Time)

10:00 AM - 10:50 AM

Digital transformation and its impact on government agricultural policies

Moderator: David Frabotta, Meister Media

Opening session

Speaker: Gustavo Carneiro, CropLife Asia

 How civil aviation is collaborating with other sectors to allow drones to benefit smallholder farming in India

Speaker: Amber Dubey, Ministry of Civil Aviation, India

Technology as a strategy to help farmers in China

Speaker: Dr. Yuan Huizhu & Yan Xiaojing, Chinese Academy of Agricultural Sciences (CAAS), China

10:50 AM - 2:00 PM

Regulatory frameworks for pesticide application by drone around Asia Pacific

Moderator: David Frabotta, Meister Media

- Best practices on drones for pesticide application regulations in Asia Pacific Speakers:
 - Dr. Hidetaka Kobayashi, Ministry of Agriculture, Forestry and Fisheries (MAFF), Japan
 - Dr. Noh, Rural Development Administration (RDA), South Korea
 - Kris Anne Joi L. Minguez, Fertilizer and Pesticide Authority (FPA), Philippines
 - Hung Yu-Tang, Bureau of Animal and Plant Health Inspection and Quarantine (BAPHIQ), Taiwan

Break (30 mins)

Product compatibility for formulations and adjuvants

Speakers:

- Dr. Wu Xuemin, China Agricultural University, China
- Cao Zheng Ya, Momentive Performance Materials Inc., China
- Summary of key learning points and best practices from around Asia

Speaker: Bjoern Roepke, Bayer Crop Science

Q&A

Forum Agenda

DAY 1 8 March 2021, Monday (10:00 AM – 4:00 PM Singapore Time)

2:00 PM - 4:00 PM

Safety Standard Operating Procedure (SOP) for pesticide application by drone

Moderator: Cindy Lim, Syngenta

- Develop Standard Operating Procedures (SOP) for safe handling and precautions for spray operation Speakers:
 - ■Dr. Noh, Rural Development Administration (RDA), South Korea
 - •Kris Anne Joi L. Minguez, Fertilizer and Pesticide Authority (FPA), Philippines
- Industry perspectives on developing standards for safe use of drones

Speaker: Sun Xinyou, Bayer Crop Science

- Best practices for UAV application and technical feasibility exploration on drone application Speaker: Pamela Wang & Xie Ray, Corteva Agriscience
- Q&A

Forum Agenda

DAY 2 9 March 2021, Tuesday (10:00 AM – 4:00 PM Singapore Time)

10:00 AM - 1:00 PM

R&D: Technology enablers for pesticide application by drone

Moderator: Chris Qi, Bayer Crop Science

• Optimization for spray system

Speakers:

- Hsu Wu-Huan, Taiwan Agricultural Research Institute (TARI), Taiwan
- Chiang Chih-Min, Taiwan Agricultural Chemicals and Toxic Substances Research Institute (TACTRI), Taiwan
- Dr. Noh, Rural Development Administration (RDA), South Korea
- Jack Jia, DJI
- Dr. Piyush Mishra, TATA Services Limited

Assessing Quality of Drone Pesticide Applications in The Field

Speaker: Dr. John Andaloro, FMC Corporation

Q&A

Break (30 mins)

1:00 PM - 4:00 PM

Commercial adoption of drone for pesticide application in APAC

Moderator: Pamela Wang, Corteva Agriscience

Case studies in different crops

1. Japan on grain crops

Speaker: Yuso Kobara, National Agriculture and Food Research Organization (NARO), Japan

2. New Zealand

Speaker: Bill MacGregor, New Zealand Agricultural Aviation Association

3. Philippines on banana crop

Speaker: Joel Laserna and Justin Laserna, Philippine FarmFix Solutions Inc.

Benefits of drones for farmers (part i)

Speaker: James Chu, DJI

• Business model for spray service providers in China

Speaker: Wei Huixia, Suzhou Haisen

• Benefits of drones for farmers (part ii)

Speaker: Justin Gong, XAG

Q&A

10:00 AM - 12:00 PM

Emerging technological advancements in drone for pesticide application

Moderator: Yingnan Jiang, BASF

• Digital transformation: Future challenges and opportunities for drone pesticide application adoption and access in Asia

Speakers: Kohei Sakata, Bayer Crop Science

- Emerging technologies and its impact on agriculture and economies Speakers:
 - Wing Zhong, DJI
 - Justin Gong, XAG
- Q&A

Break (30 mins)

12:00 PM - 2:00 PM

Roundtable: Future collaboration opportunities to drive best practices in the region

 Introduction to three break-out groups based on three key concerns emerging from the forum to take forward

By CropLife Asia

- Three break-out sessions in parallel
 - 1. Regulatory requirements for registration
 - 2. Stewardship and safety
 - 3. Application technology
- Summary and concluding remarks

By CropLife Asia

Day 1 - Session 1.

Digital Transformation & its Impact on Government Agricultural Policies



Moderator: David Frabotta

Editorial Market Development Director, Meister Media Worldwide

David Frabotta is Editorial Market Development Director for Meister Media Worldwide's Global Precision Initiative and AgriBusiness Global. He is an award-winning journalist and has worked in agriculture and agronomy for over 12 years. He has developed conferences and exhibitions that advocate and advance crop production technologies throughout Asia, Africa, and the Americas and continues to scour the globe for agriculture trends and insights.



Gustavo Palerosi

Senior Vice President, BASF Agricultural Solutions Asia Pacific

Gustavo is the senior vice president at BASF Agricultural Solutions Asia Pacific since 2016. Prior to this role, he was Vice President of Global Planning, Controlling & Information Technology Agricultural Solutions, Limburgerhof/ Germany in 2010, and had undertaken various positions in BASF from 2003 to 2007.



Amber Dubey

Joint Secretary, Ministry of Civil Aviation

Amber is an alumnus of IIT Bombay and IIM Ahmedabad and has a professional experience of over 27 years. He was one of nine professionals selected in September 2019 by the Government of India to join as Joint Secretaries in the union government. At Ministry of Civil Aviation (MoCA), Amber is looking after IT, digital innovation, skill development and job growth etc. Earlier, Amber was India head of aerospace and defence at global consultancy KPMG and had led several assignments related to policy, strategy, bid transactions and regulatory issues. He has assisted central and state governments, regulators, airports, airlines, cargo and MRO companies in India and abroad. Amber has worked closely with the MoCA in drafting the Vision 2040, National Civil Aviation Policy (NCAP 2016) and the policy framework for the Regional Connectivity Scheme (RCS). He had earlier assisted MoCA in drafting the 12th Five Year Plan for aviation. Amber was honoured for 'valuable contribution to Indian aviation' in 2012 by the then aviation minister.



Dr. Yuan Huizhu

Professor of Institute of Plant Protection Chinese Academy of Agriculture Science (CAAS)

As an expert of pesticide science, Dr. Yuan is a leader of projects on National Natural Science Foundation of China. As a member of crop protection instruction team in MOA, China, he is focusing on pesticide application technology. Dr. Yuan is also a Director of MOA's Pesticide Research & Pesticide Application Committee. He is the founder of Joint Laboratory for UAV Agriculture with DJI to promote the digital farming and precision farming by new technology. He has been conducting a series of field trail of UAV application for plant protection more than 8 years since 2012.

Day 1 - Session 2.

Regulatory Frameworks for Pesticide Application by Drone Around Asia Pacific



Dr. Hidetaka Kobayashi

Director of Agricultural Chemicals Office, Ministry of Agriculture, Forestry and Fisheries, Japan
Dr. Hidetaka Kobayashi graduated the master course of the university of Tokyo and received a
Ph.D. degree from Hokkaido University by the research on the lipid oxidation.
Before his current position, he worked as a researcher of analytical chemistry in the National Food
Research Institute, as a chemist in the area of contaminants in foods and soils in the Food Safety
and Consumer Affairs Bureau and as a member of the Codex Secretariat in FAO, having served for
several Codex committees including Codex Committee on Pesticide Residues and Codex
Committee on the Method of Analysis and Sampling. He has also participated in Codex committee
meetings as a member of the Japanese delegation and in JMPR as an expert since 2019.



Dr. Noh Hyun-Ho

Research Scientist, Rural Development Administration (RDA), South Korea

Dr. Noh specialises and majors in pesticide residue in his course of study over 15 years in agricultural chemistry. He is currently conducting research on two specific areas of agro-UAV part and pesticide residue evaluation. These include pesticide drift with agro-UAV according to formulations, nozzles and adjuvants, distribution of residual pesticide in crop spraying agro-UAV, manual of agro-UAV for drift reduction, monitoring the contamination of pesticide residue on surrounding crops after aerial spraying, residual evaluation for new pesticides, and optimization of pesticide residue analysis method in crop, environment, industrial insects, and more.



Dr. Hung Yu-Tang

Section Chief, Bureau of Plant and Animal Health Inspection and Quarantine (BAPHIQ), Council of Agriculture, Executive Yuan

Dr. Hung has had 16 years of experience in pest control in the Plant Protection Division of BAPHIQ. He now works as in the section of Agro-pesticide Management, Plant Protection Division, BAPHIQ as the section chief. Prior to that, he was also a specialist in the pest management section of BAPHIQ. Dr. Hung graduated from National Taiwan University in 2006 with a doctorate in Entomology.



Kriz Anne Joi L. Minguez

Chemist II, Pesticide Regulations Division, Fertilizer and Pesticide Authority, Philippines

Kriz Minguez is a licensed chemist, who graduated from the University of the Philippines - Los

Baños in 2014. She worked as laboratory analyst for 2 years at the Philippine Institute for Pure and

Applied Chemistry and started working in FPA in 2017 under the Pesticide Regulations Division.

She is responsible for product registration of new proprietary pesticide products and issuance of
experimental use permits.

Day 1 - Session 2.

Regulatory Frameworks for Pesticide Application by Drone Around Asia Pacific



Dr. Wu Xuemin Professor of National Pesticide Formulation Laboratory, China Agriculture UniversityDr. Xuemin Wu is Professor of National Pesticide Formulation Laboratory, China Agriculture

University. Dr. Wu is the key advisor & expert of pesticide regulation to MOA & Ministry of

Environmental Protection. He is also the expert of pesticide analysis of MOA. Focusing on pesticide

formulation. Dr. Wu is the leader of pesticide formulation projects of National Natural Science

Foundation of China. Dr. Wu is working with multinational companies to develop formulation

technology of drone spraying and be the key advisor on formulation of drone application to ICAMA,

MOA on the coming new regulation.



Cao Zhengya
Application Development Engineer (Agriculture), Momentive Performance Materials Inc.
Cao is an application development engineer with more than 10 years of comprehensive learning, research and experience in crop protection and agriculture. Momentive Performance Materials focuses on silicone technology, with a commitment to sustainability. That includes understanding global trends and challenges for farmers and using their technology to provide solutions.



Dr. Bjoern Roepke

Head of Regulatory Affairs Manager & Product Safety for Asia, Bayer Crop Science

Bjoern is a Regulatory Affairs & Product Safety professional with 18 years of progressive and comprehensive international experience in agro-chemicals in country-, regional- and global roles building and leading culturally diverse teams of Scientists and Regulatory Affairs Managers.

Sustained roles in industry associations in Europe and Asia over the past 10 years engaging with multiple stakeholders in the pursuit of advancing science in regulations. Passionate for advancing farmer's livelihood with novel technology. Leadership of drone regulatory stream in Bayer and CropLife working groups.

Day 1 – Session 3
Safety Standard Operating Procedure (SOP) for Pesticide Application by Drone



Moderator: Cindy Lim
Head of Sustainable & Responsible Business APAC, Syngenta

Cindy is the Head of Sustainable & Responsible Business APAC at Syngenta. Based in Singapore, the regional headquarters for Asia Pacific, she is responsible for driving stewardship and safe use of our products throughout the region. At the same time, she leads the delivery of The Good Growth Plan across the region and in support of progress towards these targets, Cindy also supports external engagement on sustainable agriculture and looks to build partnerships across region with a variety of stakeholders.

Before taking on this role in March 2014, Cindy was Community and Media Relations Manager APAC and was responsible for the development of strategies to share value with the communities in which Syngenta operates and protect the company's reputation and license to operate. Prior to joining Syngenta, Cindy held a variety of public affairs and external engagement roles from various industries, including energy and forestry.



Dr. Noh Hyun-HoResearch Scientist, Rural Development Administration (RDA), South Korea

Dr. Noh specialises and majors in pesticide residue in his course of study over 15 years in agricultural chemistry. He is currently conducting research on two specific areas of agro-UAV part and pesticide residue evaluation. These include pesticide drift with agro-UAV according to formulations, nozzles and adjuvants, distribution of residual pesticide in crop spraying agro-UAV, manual of agro-UAV for drift reduction, monitoring the contamination of pesticide residue on surrounding crops after aerial spraying, residual evaluation for new pesticides, and optimization of pesticide residue analysis method in crop, environment, industrial insects, and more.



Kriz Anne Joi L. Minguez

Chemist II, Pesticide Regulations Division, Fertilizer and Pesticide Authority, Philippines

Kriz Minguez is a licensed chemist, who graduated from the University of the Philippines - Los

Baños in 2014. She worked as laboratory analyst for 2 years at the Philippine Institute for Pure and

Applied Chemistry and started working in FPA in 2017 under the Pesticide Regulations Division.

She is responsible for product registration of new proprietary pesticide products and issuance of
experimental use permits.



Dr. Sun Xinyou Senior ERA expert, Bayer

Dr. Sun Xin You is the Senior Environmental Risk Assessment (ERA) expert at Bayer CropScience, based in China. Prior to this role, he had been working for 10 years at Bayer as a senior stewardship and sustainability expert and also holds secondary roles in the stewardship committees of industry associations, CropLife China and China Crop Protection Industry Association (CCPIA). Dr. Sun began his career at the Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA). He graduated from Shenyang Agriculture University and China Agriculture University (PhD).

Day 1 - Session 3.
Safety Standard Operating Procedure (SOP) for Pesticide Application by Drone



Dr. Ray Xie

Application Scientist, APAC Product Science and Technology, Crop Protection Product & Process Technology R&D, Corteva Agriscience

Dr. Xie has strong background in field application with four years of experience as agronomist and two years as field scientist. Dr. Xie is the author or co-author of 12 scientific journal publications and 3 patents. As Application Scientist, Dr. Xie is responsible for application technology through product development to launch. Also serve as application technology focal point to enable drone application capability and adoption.



Pamela Wang

Field Scientist, Drone Application and Digital Agriculture Coordinator of APAC, IFS, Corteva.

Pamela is a Field Scientist and coordinator of Drone Application of APAC, IFS. She has more than 10 years' working experiences on fungicide development and have 4 years in drone application experience. As a coordinator in APAC, she endeavored to speed up the process of generation of Best Application Practice based on our studies, to strengthen the cooperation internally and externally, and to enable teams to win. In Corteva, China and APAC Drone Application Workshop was organized since 2019, such workshop intensified and expanded multilateral influence, relationships and network in drone market.

Day 2 - Session 1.
Technology Enablers for Pesticide Application by Drone



Moderator: Chris Qi Agronomic Solutions Manager, APAC, Bayer CropScience

Chris Qi is a UAS application technology expert of Bayer CropScience. Chris had ten years of experience in agro-chemical international company of different R&D areas such as product development, technical service, UAS application technology and digital tools.



Hsu Wu-Huan

Associate Researcher, Taiwan Agricultural Research Institute (TARI), Council of Agriculture, Executive Yuan

Hsu Wu-Huan has been an active research in the field of agriculture for the past 22 years and had spent most of this time with Taiwan Agricultural Research Institute (TARI) with research in the agricultural engineering division. Prior to working in the Agriculture Engineering Division of TARI, he was an assistant at the Hualien Agricultural Research and Extension Station. He graduated with a Masters in Agriculture from National Chung Hsing University.



Chiang Chih-Min

Assistant Researcher, Taiwan Agricultural Chemicals and Toxic Substances Research Institute, Council of Agriculture, Executive Yuan

Chiang Chih-Min is an Assistant Researcher at Taiwan Agricultural Chemicals and Toxic Substances Research Institute (TACTRI), Council of Agriculture, Executive Yuan since 2015. Prior to this role, he was a research assistant at Taiwan Agricultural Research Institute, TARI from 2008 -2014. Mr. Chiang graduated with a M.S., in Soil and Environmental Sciences at National Chung Hsing University.



Dr. Noh Hyun-Ho

Research Scientist, Rural Development Administration (RDA), South Korea

Dr. Noh specialises and majors in pesticide residue in his course of study over 15 years in agricultural chemistry. He is currently conducting research on two specific areas of agro-UAV part and pesticide residue evaluation. These include pesticide drift with agro-UAV according to formulations, nozzles and adjuvants, distribution of residual pesticide in crop spraying agro-UAV, manual of agro-UAV for drift reduction, monitoring the contamination of pesticide residue on surrounding crops after aerial spraying, residual evaluation for new pesticides, and optimization of pesticide residue analysis method in crop, environment, industrial insects, and more.



Jack Jia

DJI Agriculture Presales, DJI Agriculture department

Jack Jia is the technical engineer of DJI Agriculture overseas. Before DJI, he has 4 years of product and solution sales experience in Huawei involving video surveillance. He joined DJI in August 2019 and has knowledge in agricultural drone application and enterprise drone application.

Day 2 - Session 1.

Technology Enablers for Pesticide Application by Drone



Dr. Piyush Mishra

Technology Leader, DGM, TATA Services Limited

Dr. Piyush Mishra is Technology Leader and DGM within the Group Technology and Innovation Office (GTIO) of Tata Sons, where he currently heads the program on digital technologies, including Robotics, data analytics, and I4.0, and supervises strategic R&D programs with international and national partner institutions.

Before joining Tata in 2015, Piyush was with Qualcomm, USA, where he was responsible for development of advanced verification and validation technologies for complex system-on-chips (SoCs). Prior to that he was at GE Global Research, USA, where he led programs on cyber-security, high-speed electronics, and reconfigurable computing for healthcare, aviation, and energy businesses. He has also served as Assistant Professor of Electrical and Computer Engineering at Michigan Technological University, where he founded the research programs on low-power, high-reliability, real-time systems used in mission critical applications.

Piyush received his PhD in Electrical Engineering & Computer Science from NYU School of Engineering and B.E. in Electrical and Electronics Engineering from Birla Institute of Technology, Mesra, India. He has co-authored a book and published research articles in over 20 international journals and conferences. He holds 2 US patents and has served in various national and international forums, including Executive Committee of Smart India Hackathon, Ramot Momentum Fund, and CII Innovation Summit.

He is certified in Tata Business Excellence Model, Six-sigma green-belt, and US-DHS Industrial Control Systems Cyber-security.



Dr. John Andaloro

Global Technical Product Manager and Sr. Research Fellow with FMC Corporation, Delaware, USA John has collective life-time experiences in agricultural crop protection through positions in academia and ag chem companies combined with activities on his family's vegetable farm enterprise. Currently, an entomologist with FMC Corporation after 35 years with the DuPont Company, John's main responsibilities as the global technical manager for Rynaxypyr® and other insect control products are to manage global development programs, maintain their technical foundation, product life cycle management, and transfer technical knowledge. This requires interactions with an international team of colleagues from numerous disciplines (registration, manufacturing, development, marketing, sales, env sciences, etc.) as well as university experts, industry influencers, and growers. Dr. Andaloro leads the FMC corporate effort to maintain pest susceptibility to FMC's insecticide portfolio, particularly the diamide products and is very active in the International Insecticide Resistance Action Committee (IRAC). John also has extensive experience with Unmanned Aerial Vehicle (UAV) technology and is FMC's corporate technical resource for this new method of application. Early in his career, Dr. John coordinated the vegetable Integrated Pest Management programs in New York State while employed at Cornell University's Entomology Department in New York, USA.

Day 2 – Session 2.

Commercial Adoption of Drone for Pesticide Application in APAC



Moderator: Pamela Wang

Field Scientist, Drone Application and Digital Agriculture Coordinator of APAC, IFS, Corteva.

Pamela is a Field Scientist and coordinator of Drone Application of APAC, IFS. She has more than 10 years' working experiences on fungicide development and have four years of drone application experience. As a coordinator in APAC, she endeavored to speed up the process of generation of Best Application Practice based on our studies, to strengthen the cooperation internally and externally, and to enable teams to win. In Corteva, China and APAC Drone Application Workshop was organized since 2019, such workshop intensified and expanded multilateral influence, relationships and network in drone market.



Dr. Yuso Kobara

Unit Leader, National Agriculture and Food Research Organization (NARO), Japan

Dr. Yuso Kobara is a researcher with almost 30 years of agricultural research experience in institutes and associations in Japan. He specialises in research areas in alternatives and emissions reductions of current soil fumigants, simulation of the atmospheric dispersion of pesticides applied

reductions of current soil fumigants, simulation of the atmospheric dispersion of pesticides applie with Unmanned Aerial Vehicles (UAVs) and global scale multimedia fugacity contaminant fate model of Persistent Organic Pollutants (POPs). With more than 40 peer-reviewed research publications to his name, Dr. Yuso Kobara is prime to present on adoption of drone for pesticide application in Japan for grain crops.



Bill MacGregor

Executive Officer, New Zealand Agricultural Aviation Association (NZAAA) and New Zealand Helicopter Association (NZHA)

Bill MacGregor is the Executive Officer for the New Zealand Agricultural Aviation Association (NZAAA) and the New Zealand Helicopter Association (NZHA). The two associations are divisions within Aviation New Zealand (AvNZ) a membership association which advocates with government and regulators on behalf of our members. Bill is also the Director of Civil Aviation (DCA) for Niue, a small Pacific Island State. Bill spent 28 years as a military pilot and subsequently in civil roles as DCA Solomon Islands and the Aviation Examiner for the CAA New Zealand. Interspersed with the regulatory roles are a number of aviation consultation roles. Bill brings to this presentation perspectives from both the industry as an operator and government as a regulator. After 52 years in aviation, Bill is excited by the possibilities opened up by the rapidly developing range of technology which is disrupting the way we do things and the challenges this poses for both industry and regulators.



Joel Laserna

Philippine FarmFix Solutions Inc.

Mr. Joel Laserna has been in the Crop Science field for more than 30 years and have built up his accolades along the years in various crop science and technological corporations. He is currently working in both Philippine Farmfix Solutions Inc. and Agriserna Tech Solutions Inc., making him the best candidate to present on the banana crop and the commercial adoption of drones for pesticide application in the Philippines.

Day 2 - Session 2.

Commercial Adoption of Drone for Pesticide Application in APAC

2020 and started agriculture drones business overseas since then.



Justin Paolo m. Laserna General Manager, Agriserna Tech Solutions Inc

Justin is General Manager of Agriserna Tech Solutions Inc, a crop protection service company that uses modern application technology such as Drone Sprayers. He had been with the company from the start and had been involved in developing its systems, organization and directing the day to day operations. As the pioneers in the drone spraying business, they were also the first company to secure the license to operate from Fertilizer and Pesticide Authority (FPA), secure franchise from Civil Aeronautics Board (CAB) in operating fleet of drone sprayers, and secure the license to operate Drone Spraying Service from Civil Aviation Authority of the Philippines (CAAP). They spray 85 hectares per week to different banana plantations in Mindanao.



James Chu

DJI Agriculture regional sales manager, DJI Agriculture Department

James Chu is the Regional Sales Manager of DJI Agriculture overseas. Before DJI, he has 6 years distribution channel management experience in both Vivo and Dahua. He joined DJI in beginning of



Huixia Wei Assistant to general manager, Suzhou HaiSen

Huixia Wei has had 5 years of planting experience in modern agricultural crop and is currently responsible for spraying quantity control of different crops, helping farmers with problem solving during planting seasons and providing advise to meet customer needs in building HaiSen's systems. Suzhou HaiSen was founded in 2014, with the effort of everyone and the support of DJI. It has now become a national high-tech enterprise. After years of high-speed development, it has become a leading domestic civil drone provider in China. With UAV as its core, HaiSen will build a special crop protection service system in agriculture. It aims to become a pioneer and leader enterprise in the construction of plant protective service systems in China.



Justin Gong Co-Founder, XAG

Justin Gong joined XAG (XA.COM) as the co-founder in 2013, took charge of corporate strategy, globalisation and marketing. XAG aims to build the infrastructure of agriculture for the next 100 years, that will provide the world with sufficient, diversified and safe food. Keeps advancing agriculture, XAG is the best agriculture drone manufacturer and the world's leading agriculture technology company providing smart solutions for both scaled farms and small holders.

Being a pioneer in design, R&D, manufacturing and operation of agriculture UASs, robots, IoT system, AI and farm management, during the last 5 years, Justin and his team had successfully introduced UAS plant protection services to 7 million farmers, served more than 25 million hectares of farmland worldwide. In 2016, Justin founded XAG Academy, which is now educating more than 60,000 young agriculture professionals to embrace new technologies and sustainable farming concept. In August 2018, Justin gate-crashed the Forbes China "30 Under 30", marking his contribution in the field of agriculture.

Day 3 - Session 1. Emerging Technological Advancements in Drone for Pesticide Application



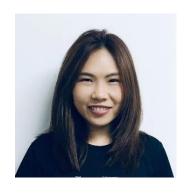
Moderator: Dr. Yingnan Jiang
APAC Regional Regulatory Affairs Manager, BASF

Yingnan has been working in the agricultural industry for more 15 years with experiences for various roles including technology development, seed regulation and CP product regulation. He is passionate to bring new technologies to farmers to make the sustainable development for agriculture. He represents BASF in the CLA drone working group to develop the regulatory strategy to support and shape drone regulation in APAC countries.



Kohei Sakata
Digital Incubator Lead for Asia Pacific, Crop Science Division, Bayer

Kohei Sakata is Digital Incubator Lead for Crop Science for the Crop Science Division of Bayer, covering the whole Asia Pacific region including Australia/New Zealand, Greater China, South Asia, Northeast Asia and Southeast Asia. Prior to taking on this role in May 2020, Kohei was Head of Digital Strategy and Digital Solution for the same division and geography. From February 2016 to May 2019, Kohei was Managing Director for Bayer Vietnam Ltd., as well as Country Commercial Lead for the Crop Science business in Vietnam since 2016. He first began his career with Bayer in Japan in 2013, as the Head of Marketing for Bayer CropScience K.K. Before joining Bayer, Kohei was Associate Principal with McKinsey & Company's Japan office, a role he held since 2004. In addition to his job responsibilities, Kohei has undertaken key roles in the agricultural industry, including Chairperson of CropLife Vietnam from 2016 to 2019, and Co-Chair of the Public Private Partnership Rice Taskforce in Vietnam from 2017 to 2019.



Wing Zhong Solutions Engineer, DJI Agriculture, Product Development

Wing Zhong is the Solutions Engineer of DJI Precision Agriculture project. Before DJI, she has years of research and professional experiences in the spatial information industry including USGS and ESRI. She joined DJI in 2019 and started to manage product development and precision agriculture projects.



Justin Gong Co-Founder, XAG

Justin Gong joined XAG (XA.COM) as the co-founder in 2013, took charge of corporate strategy, globalisation and marketing. XAG aims to build the infrastructure of agriculture for the next 100 years, that will provide the world with sufficient, diversified and safe food. Keeps advancing agriculture, XAG is the best agriculture drone manufacturer and the world's leading agriculture technology company providing smart solutions for both scaled farms and small holders. Being a pioneer in design, R&D, manufacturing and operation of agriculture UASs, robots, IoT system, AI and farm management, during the last 5 years, Justin and his team had successfully introduced UAS plant protection services to 7 million farmers, served more than 25 million hectares of farmland worldwide. In 2016, Justin founded XAG Academy, which is now educating more than 60,000 young agriculture professionals to embrace new technologies and sustainable farming concept. In August 2018, Justin gate-crashed the Forbes China "30 Under 30", marking his contribution in the field of agriculture.

Frequently Asked Questions (FAQs)

Is there a registration fee to participate in this forum?

No, the event is free.

I have registered for the event but have not received the event link.

An event link will be sent to your email address closer to the date. The event will be hosted on Cisco Webex System.

Can I attend some sessions? Can I attend all sessions of the forum?

You may attend selected sessions or all sessions. The event link is the same on all days.

Can I forward this event to my colleagues to join?

Yes you may. However, we have a limit to the number of participants we can admit into the event platform. We will try our best to accommodate as many participants as possible. With permission from the speakers, the presentations and meeting report, summarizing our discussions will also be shared to the participants which can be further shared with your colleagues who were unable to attend.

I am in a different time zone and cannot attend this forum. Will the forum be recorded and shared?

With permission from the speakers, the presentations and meeting report, summarizing our discussions will be shared to the participants which can be shared to your colleagues.

How will the Q&A session be conducted?

Using a Q&A chat function on Cisco Webex System, participants can write their questions and the moderators will select the questions for the speakers to answer. On Day 3, the final session is a roundtable discussion where participants can interact more openly. More details on the Roundtable session on Day 3 will be shared during the forum.

What language will the forum be conducted in?

The forum will be conducted entirely in English language. Some speakers will speak in native language and supported by simultaneous interpreters during the Q&A sessions to English.

About CropLife Asia

CropLife Asia is a non-profit society and the regional organization of CropLife International, the voice of the global plant science industry. We advocate a safe, secure food supply, and our vision is food security enabled by innovative agriculture. CropLife Asia supports the work of 15 member associations across the continent and is led by six member companies at the forefront of crop protection, seeds and/or biotechnology research and development.

Find out more at: http://www.croplifeasia.org/

