Phyto meeting
APSA hosted 5th Expert Consultation on Asia-Pacific Phytosanitary Measures

Asian seed legacy
The Dutchman who transformed millions of Asian farmers’ lives gets World Food Prize

Malaysian self-sufficiency
DoA chief talks strategy ahead of 26th Asian Seed Congress

Technical talk
Updates from APSA Special Interest Groups and Standing Committees

East-West Seed’s Hon. Chair & one of APSA’s Founding Members

Simon N. Groot
named
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Greetings from Pakistan. Here, the season of sweet and delicious mangoes has closed and it is the start of a great monsoon season. We are fortunate to have enough – and timely – rains for over three million hectares of rice crop, and have breathed a sigh of relief under the blows of armyworms, the regional geopolitical situation and high-temperature spells of June.

Welcome to the Q3 edition of Asian Seed & Planting Material. First, a huge thanks to all APSA members, government officers and other key stakeholders who have continued to support APSA through a busy year of transition. Quarter Three has been especially productive with several highlights to mention here.

At the end of July, I flew to Bangkok to preside over the signing ceremony for a Memorandum of Understanding between APSA and Thailand’s National Science and Technology Development Agency (NSTDA). This is effectively APSA’s first MoU under our new entity – the Asia and Pacific Seed Alliance, Ltd., but will certainly not be our last as we look to link up with more like-minded, research-oriented institutions and organizations in the near future. Though we’ve collaborated with the NSTDA previously, the signing of this MoU is a positive step to fortify our cooperation, partnership and mutual commitment to promoting research and development in innovation for the betterment of the seed industry in Asia. For more details about the MoU, please see the article on page 38.

I was in Bangkok again at the end of August to preside over APSA’s Fifth Expert Consultation on Phytosanitary Measures in the Asia-Pacific. This important annual meeting brought together representatives from ISF, ASF, ASTA, APAARI, Crop Life Asia, National Seed Associations and National Plant Protection Officers (NPPOs) from all over the region as part of regional and global efforts to harmonize phytosanitary rules and procedures that aim to ensure seamless and safe movement of quality seed across borders. Progress on ePhyto, implementation of ISPM38 and knowledge sharing about systems approach, and planning to celebrate 2020 as the International Year of Plant Health were key topics.

I am pleased to witness all the progress realized on this front, and specifically that NPPOs in the APSA region are increasingly emphasizing and implementing ISPM38 in their handling of seeds. For APSA’s role in this as a Regional Seed Association, Dr. Kanokwan Chodchoey, APSA’s Executive Director, has been instrumental in cementing cooperation with key stakeholders at the global scale, including the International Seed Federation and CropLife Asia. Please see her letter for specific outcomes of the latest meeting. I look forward to tracking and benchmarking progress at the next meeting.

Earlier the APSA Executive Committee approved a proposal from the China Seed Association to hold the Asian Seed Congress – ASC 2020 – at Shenzhen, China, a part of the Pearl River Delta, the megalopolis bordering Hong Kong. I am sure we will have an excellent Congress at Shenzhen as the CSA, along with the city government, plan to make it a memorable event in the history of China’s first Special Economic Zone and the newly developed city of Shenzhen. I hope delegates will enjoy the atmosphere of colorful buildings and water flowing through 160 rivers and channels.

Looking ahead to Quarter 4, APSA is getting ready for a few more important meetings to close out the year. This October scientists, executives, and officers from APSA member companies and state institutions will be convening in Hyderabad, India for the Third Asian Solanaceous Round Table (ASRT III). Since the inaugural ASRT was held there in 2014, followed by ASRT II in Bangkok in 2017, this meeting has earned a reputation as an essential forum and platform for Asian R&D specific to the Solanaceae family of vegetables. As we are anticipating a successful third meeting, I urge all companies dealing in tomatoes, peppers and eggplant to consider registering. (More details on pages 36 and 37)

Finally, the all-important seed trade roads lead to Kuala Lumpur this November (25th-29th) for the 26th Asian Seed Congress. Though not the first country many would think of when discussing seed, Malaysia in recent years has been of leading global importance in sowing seeds. To ensure food security the Malaysian government has been implementing strong policies to promote seed production and trade. And like my own country and many other countries in the APSA region, Malaysia has so much untapped potential that we will certainly see more of in the years to come.

We are certainly looking forward to finding out about this country’s plans, strategy and strengths soon. In the meantime, be sure to sample a small teaser by reading the article on page 31 by the Malaysian Department of Agriculture Acting Director General, Mohd Nasir Bin Warris. With that, I’d like to say thank you and, until we meet again, be happy, healthy and prosperous! 🌿
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TAKII SEED
Creating Tomorrow Today
Welcome to the Q3 edition! In this edition, there are so many important topics for APSA members.

First of all, we would like to congratulate Mr Simon Groot for winning the most prestigious award in agriculture. His dedication to the seed sector development and small farmers’ life improvement is very inspiring. You can read more of his great insight into agriculture on pp 19 to 21.

In July, our Executive Committee members met in China. The main agenda was to review the operation process and constitution, as this was the first meeting under the Asia and Pacific Seed Alliance. At the meeting, a new treasurer, Dr Manish Patel, representing the National Seed Association of India, was appointed.

All members can download the APSA Constitution from our website, a link for which can be found in the footer section.

We have reviewed activities proposed by the chair and co-chair of each Standing Committee (SC) and Special Interest Group (SIG), such as phytosanitary expert consultation, study tour, ASRT, workshop on seed quality management and APSA educational material on seed piracy. We recently have changed the name of the SC Trade and Marketing to be International Trade and Quarantine, regarding which this group aims to focus heavily on phytosanitary issues and trade barriers. These and more updates from all of our SCs and SIGs can be found on pp 32 – 33.

At the end of July, APSA signed our first MoU with Thailand’s National Science and Technology Development Agency (NSTDA), which is mentioned in the President’s letter and on page 38. We hope to have more collaboration with public institutions in Asia, so more MoUs will come in the future.

Our secretariat team had a meeting with the National Seed Association of Malaysia to inspect the venue and adjust the floor plan and trading tables to have a better flow for delegates at ASC 2019 in Kuala Lumpur. So, we do really apologize for any inconvenience this year with the all-new, improved plan we have prepared.

We closed the Fifth Phytosanitary Expert Consultation with great participation from the NPPOs of ten countries, national seed association representatives, our resource persons from the ISF, ASTA, CropLife Asia and ASF. The structure of the Expert Consultation makes clear that APSA would like to keep supporting the ISPM38 implementation and global initiative on phytosanitary measures (ePhyto, International Year of Plant Health 2020 and systems approach). This forum is set to bring voices from the private sector to all NPPOs, while NPPOs have a chance to share their needs and gain support from the private sector. We concluded the meeting with the action items in support of the RSPM on Chili and proposed that tomato be the next crop, ensuring the Asian region is represented in the IPPC expert group on systems approach, and consolidating the import/export condition database to be linked on APSA’s webpage.

Right now, our team is working hard to make sure we have great sessions during the Asian Solanaceous Round Table III, organized this time during 22 – 25 October in Bengaluru, India. We do really feel thankful for all the sponsors this year. The program brings many topics and we include enough time for each public institute (IIHR-ICAR, NSTDA and World Vegetable Center) to share proposals on breeding technology with APSA member companies (for more details, please see page 36).

As our President mentioned in his letter, we are really looking forward to having all of you in Kuala Lumpur.

We have a new social media campaign which we will announce again to all members. We would like to get strong support from all of you to fight against seed piracy. So we are welcoming readers to post via social media a catchy phrase, quote, meme or photo related to seed piracy, including in their post the hashtag #saynotoseedpiracy. We will monitor this hashtag on Facebook, Twitter, Instagram and LinkedIn and the post(s) that receive(s) the most likes will be shortlisted for a chance to win an award. We are really looking forward to this campaign.

Last but not least, I do really hope to keep all of you engaged with us. Please follow our social media channels to be updated with all our activities and feel free to share your comments or suggestions. We need your voice to continue to improve our operations! Thank you very much and see you soon in KL! 🇲🇾
More Q3 Highlights from APSA EC & Secretariat

In August, APSA Executive Director, Dr Kanokwan Chodchoey (5th left) led an APSA team to Kuala Lumpur to meet with the National Organizing Committee of the 26th Asian Seed Congress, led by President of the National Seed Association of Malaysia, Dr Uma Rani (5th right).

In August, APSA Executive Director, Dr Kanokwan Chodchoey (5th left) led an APSA team to Kuala Lumpur to meet with the National Organizing Committee of the 26th Asian Seed Congress, led by President of the National Seed Association of Malaysia, Dr Uma Rani (5th right).

The Executive Committee (EC) of Asia and Pacific Seed Alliance Ltd. (APSA) has elected Dr Manish Patel as the organization’s new treasurer.

Committing to an initial two-year tenure, Dr Patel takes over treasury duties from Mr Daniel Gleeson who recently left HM Clause Thailand. (The EC seat for HM Clause Thailand remains vacant)

As part of the Treasury role, Dr. Patel will serve as an APSA Office Bearer (OB), along with President Mr Tahir Saleemi, Vice-President Mr Wichai Laochoonpornkul, Immediate Past President Ms Brenda Dossey and Executive Director Dr. Kanokwan Chodchoey (ex officio).

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Proliferating plant variety protection, borderless and bountiful biodiversity

By APSA Staff

Most industry analysts agree future food security depends on improved farming and varieties. To ensure the latter, UPOV – the intergovernmental International Union for the Protection of New Varieties of Plants, headquartered in Geneva – was founded in 1961. UPOV has 75 members, covers 94 countries, and provides an internationally harmonized system affording necessary intellectual property (IP) rights to plant breeders. Proliferation of healthy, tasty, nutritious and affordable foods is thereby promoted through profitable free enterprise, along with development of protected varieties adapted to their growing environments.

To protect new varieties, breeders file applications with the Plant Variety Protection (PVP) Offices of UPOV members in which PVP protection is sought. A multilingual online tool called UPOV PRISMA facilitates the Plant Breeder Rights (PBR) application process, allowing breeders to protect new varieties in scattered UPOV-member markets using up-to-date application forms from a single, unified, digitally-accessed platform. Languages include Chinese, English, French, German, Japanese, Korean, Russian, Spanish, Turkish and Vietnamese.

Thus a breeder in Vietnam can submit PVP applications in the Republic of Korea, then use the relevant information to submit applications elsewhere without the need to fill out new forms from scratch, as much contained in the initial application can be re-used in those following. Moreover, it allows breeders to monitor applications around the world. UPOV PRISMA is available free of charge until January 2020.

The tool also features automatic translation: a breeder in China, for example, can fill-out and submit application in Chinese to protect a variety of soya bean and then use the relevant information to submit applications elsewhere. The platform also allows various team members to participate in the application process. So one person may create the breeder account, while others complete the application form, submit data and pay fees online via secure interface. UPOV PRISMA offers a ready-made online system for UPOV members lacking their own online PVP application platform.

Of especial interest is a feature that helps to find local representatives and agents for breeders who need in-country reps to manage the application procedure or parts of it. Agents register their details on UPOV PRISMA so users can contact them if they need such services.

So far, 33 UPOV members – including the Community Plant Variety Office of the European Union (CPVO) and the African Intellectual Property Organization (OAPI) – have signed up, meaning the tool presently covers 72 countries. 22 of the 33 participating PVP offices accept application data for all genera and species.

Economic benefits resulting from Plant Variety Protection appear indisputable. UPOV’s Report on the Impact of PVP suggests that implementing the UPOV Convention and membership therein are associated with:

- Increased breeding
- Greater availability of improved varieties
- Increased number of new varieties
- Breeder diversification (e.g. private breeders, researchers)
- Increased number of new foreign varieties
- Industry competitiveness in foreign markets
- Improved access to foreign plant varieties and enhanced domestic breeding programs

A 2017 assessment by Steffen Noleppa of the socio-economic benefits in Viet Nam of UPOV membership after ten years available in English, Vietnamese and Thai noted that, in the ten years prior to membership, rice, maize and sweet potato yields increased only because of increased inputs, not because of plant breeding. During the ten years after Viet Nam joined UPOV, on the other hand, rice yields increased by 16 percent, maize by 19 percent and sweet potato by 27 percent, while farmers’ income jumped 24 percent – all attributed to the benefits of plant breeding.

Noleppa calculated the annual value added by plant breeding at US$2.3 billion for arable land; US$1 billion for horticulture; and US$0.2 billion for floriculture. Gross Domestic Product (GDP) added upstream and downstream (via value chains), he wrote, was US$1.5 billion – meaning that the total added value to the economy annually amounted to US$5 billion, or more than 2.5 percent of GDP.

In Japan, Tsuyahime Rice is a new variety bringing increased income to farmers there. Its history and development are related in a video in English, with subtitles in Chinese and Thai on the benefits of UPOV membership, available on UPOV’s Website.

To become a UPOV member, laws of applicant States must be found by the UPOV Council to be in conformity with provisions of the UPOV Convention. The procedure leads to a high degree of legal harmony between States, thus facilitating cooperation between UPOV members in implementing UPOV’s PVP system.
The Food and Agriculture Organization of the United Nations (FAO) defines Agriculture Innovation Systems or AIS as a “network of actors (individuals, organizations and enterprises), together with supporting institutions and policies in the agricultural and related sectors that bring existing or new products, processes, and forms of organization into social and economic use.”

To learn more about such systems, APSA Executive Director Dr Kanokwan Chodchoey and Technical Coordinator Pot Phetlorlian on June 14 attended a workshop organized by the Asia-Pacific Association of Agricultural Research Institutions (APARRI). Titled “Innovation Strategies for Sustainable Agricultural Development” the workshop was attended by APAARRI members, partner organizations, national agricultural research institutions and other reps from the public and private sectors. Facilitating discussion were six speakers, who presented on various projects and initiatives related to AIS.

Ms Francesca Gilli (Attaché, Programme Officer Cooperation, Delegation of the European Union to Thailand) emphasized the importance of innovation in sustainable agriculture systems. Ms Joana Kane-Potaka, Assistant Director General, External Relations, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) presented on millets and sorghums, which were selected for ICRISAT’s SMART Food initiative instead of other mainstream staple crops.

Ms Sengphachanh Sonethavixay (National Technical Advisor, Polity Think Thank, National Agriculture and Forestry Institute, Vientiane, Lao People’s Democratic Republic) reviewed the importance of innovation in tackling post-harvest handling challenges. Dr N. Kumar (Vice-Chancellor, Tamil Nadu Agricultural University) talked about education as a key bridge between AIS actors: rural farmers, institutions and policy makers. Further to this, Dr Abdoulaye Saley Moussa (Agricultural Research Officer, Research and Extension Unit, FAO) talked on the challenges in handling complexities for connecting AIS actors.

Last but not least, Dr K. S. Varaprasad (Iowa State University-Andhra Pradesh Mega Seed Park International Expert) talked about why the private sector is a key actor for and driver of AIS, given strong cooperation with other sectors. Dr. Varaprasad presented the Mega Seed Park in India as case in point for effective AIS, in which all actors in seed value chains come together to realize synergistic common goals.
Strengthening regional cooperation to ensure seamless movement of quality seed was the focus of APSA’s 5th Expert Consultation on Phytosanitary Measures in the Asia-Pacific, held 28 - 29 August in Bangkok.

More than 40 delegates from ten National Plant Protection Organizations (NPPOs), two Regional Seed Associations (RSAs) and seven National Seed Associations (NSAs) attended – from China, India, Pakistan, Thailand, Malaysia, Myanmar, Indonesia, the Philippines, Australia, France, New Zealand, Japan, Netherlands and the US.

The American Seed Trade Association (ASTA), the International Seed Federation (ISF), CropLife Asia, the Asia-Pacific Association of Agricultural Research Institutions (APAARI), and Thailand’s Department of Agriculture were also represented.

In his opening remarks the Chair of APSA’s Standing Committee for International Trade and Quarantine, Dr Rajvir Rathi, noted that pest- and disease-free seeds are of paramount importance to the supply chain, and that phytosanitary discussion is timely in view of the spreading fall armyworm (Spodoptera frugiperda) devastation in Asia.

"As you all know," he said "the fall armyworm in recent
months has posed a serious threat – mostly to corn crops – throughout the region. Due to its polyphagous nature, the pest could be a problem for other crops if it’s not controlled.* He added that the many members who returned to join the forum this year evince APSA’s "untiring commitment towards the Consultation’s objectives."

APSA President Mr Tahir Saleemi in his address observed that the Asia-Pacific seed trade is of critical importance, as the region is home to more than 60% of the world’s population, and that APSA has pushed harmonization of phytosanitary measures since its founding.

"If farmers have a bad season due to pests or diseases arising from inferior seed," he said, "surely they would not buy the same seed again." Ensuring seed health, therefore, "is of the utmost importance to everyone here," as is universal adoption of ISPM 38, which harmonizes phytosanitary standards in international trade – thereby promoting food security and quality.

Next up was the Director of the Plant Protection Research and Development Office of Thailand’s Department of Agriculture, Mrs Wilaiwan Promkum: "Seed is... the basic input to increase crop productivity, and thus attain food security," she said, adding, "quality seeds of improved varieties can contribute to a yield increase of 20-25 percent."

She stressed that, while plant breeding and biotechnology are central to high-yielding varieties (including OPs, hybrids and those developed using New Breeding Techniques), phytosanitary controls grounded in "sound scientific processes" are the means by which NPPOs and traders can avoid the risk of seed-borne pathogens establishing themselves and spreading.

Following welcome remarks, a keynote presentation was delivered by Asia-Pacific Association of Agricultural Research Institutions (APAARI) Executive Secretary Dr Ravi Khetharpal. In it he outlined regional and global phytosanitary risk mitigation strategies, touching on principles, policies and agreements related to germplasm exchange. He warned against conflating plant health with seed health, pointing out that risk mitigation approaches may differ.

Dr Khetharpal urged industry to align with the UN’s 17 Sustainable Development Goals (SDGs): "It’s high time [those working in] the seed sector wake up and realize how they are contributing to development," he said, "and how their activities are directly related to SDGs."

He cited a statistic suggesting that every one-percent saved of world crop losses would feed 25 million people — which led the United Nations to designate 2020 the International Year for Plant Health (a topic later covered by the ISF’s Dennis Johnson).

Other topics on the meeting agenda covered: Pest Risk Analyses (PRAs) databases; implementing International Standard for Phytosanitary Measure 38 and Systems Approach Best Practices; and an update on UPOV’s ePhyto project.

A comprehensive meeting summary, including highlights from the country presentations and discussions, will feature in Asian Seed’s Q4 issue.
Paradigm shift needed for common understanding of seed research and proprietary seeds

by Ram Kaundinya

The recent controversy over PepsiCo India suing some farmers in Gujarat has generated interesting discussion. One European suggested that we should junk proprietary seeds with standardized high genetic potential and go back to our traditional seeds while some activists called for boycotting PepsiCo. It is difficult to see reason in the midst of politics and emotions. Keep emotions aside and look at the details of the subject.

Seed varieties cannot be patented in India. So no one, Indian or foreign, can patent seeds and control our food supply. The Protection of Plant Varieties and Farmers Rights Act, 2001 (PPV&FR Act) allows protection of plant varieties for some years if they are found to be distinct, uniform and stable. India is one of the few non-UPOV countries which have provided for the farmers to use, multiply, and share informally protected varieties for personal use.

The Indian farmer is allowed to sell seeds of protected variety as long as he does not brand it. This is a huge facility given to the Indian farmer who can access new varieties coming from the research programmes of any company and grow them without any restriction. This is the second reason why no one can control our food supply. But if farmers brand and sell seeds that are under PPV&FR protection then it is an offence.

Since this law came into effect 15 years ago, very few research varieties coming out of the private industry got protected by the PPV Authority because it is not easy to produce varieties which meet the stringent criteria. So, they all are not ‘proprietary’. There is a large number of seed varieties available to the farmer from both private and public sectors. They have full choice. It is scare-mongering by some people who shout that all the seed is being controlled by private industry through patents!

Research seed varieties bring high genetic potential that is standardized and stabilized. Junking proprietary research seeds and going for traditional varieties and organic food is an elitist view. We were growing traditional varieties till 1966, most of it organic because we did not have much chemical use then, when we could not produce enough food for a population of about 400 million. We had to depend on food donated by the USA under PL480.

Today we are 1.3 billion and will reach 1.5 billion by 2030. If India and China do not produce enough food by themselves the world will go hungry because their purchases from the world market will create shortages and push up global prices. It is counter productive to cultivate traditional varieties and organic crops everywhere, because they have lower yields and are more expensive. India has to increase productivity per acre of land and per litre of water. Any technology that favors reduced yields to serve in the fancies of a few rich people, is actually doing disservice to the nation.

Traditional varieties and traditional seed preservation systems should be protected in our gene banks and in some communities, but to say that the whole country should grow them to feed our population is a fanciful thought.

Research is the key to progress. Climate change, new pests and diseases, abiotic stresses, changing food baskets of people, increasing incomes and similar factors require development of new varieties as the older ones do not meet the new demands. Plant breeders and biotechnologists work continuously to develop varieties that can address the emerging challenges. The farmer would not be able to do this level of research in his field through saved seeds.

Considering there is limited public funding for market-oriented research, it is imperative that private seed companies invest 10% of their revenues in research that can bring new varieties with higher genetic potential. The industry cannot invest continuously if such investments don’t pay back. If there is no protection there would be no research and no development.

The farmers are running a production system that has to feed into a demand system. They should produce what is needed by the market, like any industrial unit does. They have to be resource-efficient and cost-efficient so that they can compete in the market. It is simple economics. They have to make ends meet and produce some profit for their families’ future before meeting other expectations like preserving traditional varieties, biodiversity and chemical-free farming, etc.

Contract farming, which is the case with the PepsiCo issue, is a different matter. Honouring contracts is not an easy habit even among some of our corporates. No one, including farmers, should be allowed to break contractual obligations. Value-added agriculture, which brings better quality products to the consumer and better price realization to the farmer depends on contract farming because we need identity preservation from farm to fork.

High nutrition foods and healthy foods with ever increasing demand need the contract system. The integrity of the product is assured only if the contracts are discharged properly by all including farmers, processors, transporters, etc. Consumer companies back up their proprietary products with special varieties which help in growing agricultural produce that delivers the desired characters in the final food product.

As we move more towards delivering nutrition through plant-based products for a more sustainable food system, our farmers have to get used to honouring contracts. The seed industry, which has been dependent on contract production of seeds, has been facing issues on this front for many decades.

The PepsiCo case is an opportunity for our courts to interpret the PPV&FR Act and our Contract Act and give a direction which could set the tone for our future of contract farming with proprietary varieties. It is good for all of us if the law goes through the court and gets us an interpretation which helps us in formulating our future strategies in agriculture.

Feedback: ram@kaundinya.in
New FAO chief a seasoned Chinese plant breeder

Dr Qu Dongyu, 56, on 1 August began his term as the new Director-General (DG) of the Food and Agriculture Organization of the United Nations (FAO), slated to end 31 July, 2023.

Dr Qu takes over from Brazilian agronomist, Graziano da Silva, who had served as FAO’s DG since 2011.

As the 9th DG of the FAO since its founding in 1949 Dr Qu is the first Chinese national to hold the position, and only the second Asian following India’s Binay Ranjan Sen (see full list below).

Dr Qu was elected during the 41st session of the FAO Conference held in Rome, Italy 22-29 June, having received a total of 108 of 191 votes cast.

Heading into the election the doctor was a Vice Minister of Agriculture and Rural Affairs of the People’s Republic of China, but Asian Seed understands that he has since stepped down from that position to concentrate on his new role.

Born in 1963, Dr Qu holds a Ph.D in Agricultural and Environmental Sciences from the Netherland’s Wageningen Agricultural University in addition to a M.Sc. in Plant Breeding and Genetics from the Chinese Academy of Agricultural Sciences, and a B.Sc. in Horticultural Sciences from Hunan Agricultural University, China.

Prior to being appointed in 2015 a vice minister of Agriculture and Rural Affairs, P.R.C., he served as a Vice Governor and Assistant Governor of the Ningxia Hui Autonomous Region since 2008. From 2001 to 2008 he was the Vice President of the Chinese Academy of Agricultural Sciences, where he had also worked as a researcher since the 1980s.

Transcribed from the talent section of his official CV:
“Dr Qu has successfully led China’s agricultural dialogue and cooperation with relevant countries and international organizations, and facilitated the development of action plans to speed up eradication of global hunger and poverty and promote the implementation of the 2030 Agenda for Sustainable Development.

“He has met with more than 200 high-level foreign government officials, heads of international organizations and CEOs of multinational enterprises, and developed a network of strong partnerships with multiple stakeholders.

“His visits to nearly 100 countries have given him first-hand knowledge on agriculture and rural affairs in different parts of the world, and enable him to empathize with the needs for agricultural development and aspirations of farmers in the world.”

Said Qu Dongyu on his approach: “I intend to work for an FAO that applies modern science and technology, and adopts innovative approaches.”

“My goal is to make this organization more dynamic, transparent and inclusive in the coming four years” he added.

Since the establishment of FAO in 1945, there have been eight Directors-General:

- Sir John Boyd Orr, United Kingdom, 1945-1948
- Norris E. Dodd, United States, 1948-1954
- Philip Vincent Cardon, United States, 1954-1956
- Binay Ranjan Sen, India, 1956-1967
- Addeke Hendrik Boerma, Netherlands, 1968-1975
- Edouard Saouma, Lebanon, 1976-1993
- Jacques Diouf, Senegal, 1994-2011
- José Graziano da Silva, Brazil, 2011-2019
Hyderabad throbs as the heart of seed testing for 32nd ISTA Congress

451 participants from 63 countries attended the International Seed Testing Association (ISTA) 32nd Congress in Hyderabad, India, 26 June – 3 July. Both public and private organizations were represented, including universities, companies and government agencies. The event was organized in collaboration with India’s National ISTA Designated Authority and saw election of ISTA’s first Asian vice president and a Member at Large from the Philippines selected for the Executive Committee.

India is served by 23 ISTA laboratories, six accredited. ISTA has 70 active member organizations in Asia.

Officials accounted the Congress a tremendous success, saying it raised ISTA’s profile in India and facilitated associated workshops and events, such as the FAO workshop on seed production, quality and marketing; a local farmers meeting; and the Seed Expo.

At the opening ceremony, India’s Minister of State for Agriculture and Farmers’ Welfare Shri Kailash Choudary noted the importance of seed in agriculture and the Indian seed industry, commended the role of ISTA.

In other business, the joint ISTA/OECD/UPOV seminar on Biochemical & Molecular Techniques; New Approaches for Homogeneity in Seed Testing included speakers from ISTA, the OECD and UPOV, while ISTA used the opportunity to publish a paper on DNA testing methods.

Topics covered during the Congress, included:

- Developments in Viability and Vigour Testing: Germination and Dormancy; Biochemical tests for viability; New vigour testing methods; Field emergence; Imaging; and Seed responses to biotic and abiotic stress
- Ensuring Seed Quality for Future Generations: Genetic resources; Habitat restoration; Post-harvest handling; Long-term storage; Moisture content and Equilibrium relative humidity; Desiccation tolerance and recalcitrance; Seed longevity; and Maintaining seed quality of non-crop species
- Ensuring Seed Health and Implications of Change for Seed Pathology: Epidemiology; Phytosanitary issues; New diseases; Novel disease testing methods; Seed treatments and control of disease; and Biostimulation
- Seed production in a Changing Environment: The environment and seed quality; Organic seed production; Use of and control of GM material; Genetic and physical purity; New breeding technologies; Maternal effects; Epigenetics; Seed development and maturity; Infestation with pests; and Wild Species

Top: ISTA Executive Committee (EC) Members, from left to right: Ignacio Aranciaga (Argentina), Valerie Cockerell (United Kingdom), Rita Zecchinelli (Italy), Craig McGill (New Zealand), Steve Jones (Canada), Keshavulu Kunusoth (India), Ruel Gesmundo (Philippines), Claid Mujaju (Zimbabwe), Sylvie Ducournau (France), Leena Pietilä (Finland) and Andreas Wais (ISTA Secretary General). Also on the EC, but not pictured: Berta Killermann (Germany). Right: The ISTA Congress program featured cultural performances in addition to technical sessions, a Seed Symposium and the association’s General Assembly.
• New Technology and Novel Methods for Seed Quality Assessment: the above-mentioned Biochemical and molecular techniques; Imaging and scanning technologies; Phenotyping; Genetics of seed quality; Variety identification; GM detection techniques; and Automated methods

Seed Symposium
The 2019 Seed Symposium, held 26 - 28 June under the general theme of Seed Technology and Quality in a Changing World, brought together seed analysts, technologists, researchers and scientists from various disciplines who addressed issues related to changes in population, climate, diet, pathogen resistance, and advanced technology – all of which have implications for seeds and their testing. It was observed that, with more people to feed, greater pressure is placed on agriculture to produce – yet environmental preservation mandates reduced dependence on chemicals and the necessity of restoring degraded areas. To achieve these goals, speakers averred, seed analysts may need to test more diverse species, with the emphasis on new varieties and cultivars. That, in turn, may require new technology and developing new tests or adapting old ones.

An interesting feature of the symposium focused on quality control: judging panels assessed various oral and poster presentations, distributing awards for the best three later during the Congress dinner.

Changes to ISTA Rules
During the Ordinary General Meeting (OGM) ISTA's designated members voted to approve documents OGM19-06 and OGM19-07 on proposed changes to the ISTA International Rules for Seed Testing 2020 Edition and associated method validation reports.

Noteworthy changes include updating the ISTA list of stabilised names: the new list will be available on the ISTA Website 1 January, 2020. It adds a few names considered for inclusion since the last edition; spelling or authorship changes; and changes to some species names resulting from new taxonomic classification or nomenclature. In addition to the stabilised list, use of organic growing media was approved as primary media for germination of Glycine max and Phaseolus vulgaris.

Excluding 12 editorial changes, 24 proposals were submitted for approval. Three proposals covering germination and sampling were withdrawn prior to the OGM following technical committee discussions. Members approved 21 proposals, in addition to all editorial changes, and they become effective on 1 January 2020.

The 32nd ISTA Congress was followed by an ISTA Workshop on Sampling, Purity, Germination and Moisture, hosted by the Telangana State Seed and Organic Certification Authority (TSSOCA) in Hyderabad 5 - 11 July.

New EC & Officers
Members selected a new ISTA Executive Committee for 2019 - 2022 during the OGM. Dr. Steve Jones of Canada became president, and Dr Keshavulu Kunusoth of India vice president for the period. Also representing Asia on the ISTA EC is Ruel C. Gesmundo from the Philippines. See next page for more information about Dr. Keshavulu and Mr. Gesmundo.

Future Meetings
Next year's ISTA meeting is scheduled for Verona, Italy, 25 - 28 May, while the 2021 ISTA Annual Meeting is marked for Cairo, Egypt (31 May - 3 June). The next ISTA Congress is slated to return to the APSA region, with the triennial meeting planned to be held in New Zealand.
Meet the Asian seedsmen on ISTA Executive Committee

Dr Keshavulu Kunusoth  
ISTA Vice President

Elected new ISTA vice president at the 32nd Congress in Hyderabad was India’s Dr Keshavulu Kunusoth, Director of the Telangana State Seed & Organic Certification Authority and Managing Director of Telangana State Seeds Development Corporation Ltd. in Hyderabad. Dr Keshavulu is the first Asian to serve as ISTA VP and is slated to become the association’s first Asian president in three years when the position next becomes vacant.

He has 24 years of experience as administrator, teacher and researcher in various aspects of agriculture and the seed industry, and worked in various capacities at the Government of Telangana and State Agriculture University – making significant contributions in seed research and production, formulation of seed regulatory frameworks, and international cooperation regarding seed.

Dr Keshavulu also has been involved in policy decision-making at the government level. He was professor and University Head at the State Agricultural University, and is credited with significant contributions to seed biology, plant genetic resources, production, certification, quality control, variety identification, and DUS testing and storage, meanwhile teaching seed science and technology. The doctor has published more than 100 research articles, abstracts, books, technical bulletins, reports, and training manuals etc., for both national and international readership.

During Dr Keshavulu’s tenure at the Telangana State Seed Certification Authority for domestic and OECD seed certification and at the Telangana State Seeds Corporation, exemplary growth in seed production, certification, marketing and supply were observed, with exports to many states in India and other countries. He was instrumental in initiating the first International OECD Seed Certification in India and facilitated seed exports under OECD Seed Schemes to various countries – a notable achievement for the Indian Seed industry.

Dr. Keshavulu has studied abroad extensively and joined USAID projects on seed systems in Southeast Asian and East African countries, teaching courses and acting as mentor for several postgraduate students specializing in seed science and technology.

He has organized many national and international capacity-building programs in collaboration with OECD, ISTA, USAID and the Indo-German Project on Seed Sector Development; and serves on national and international seed committees, rendering policy advice.

Since 2017, as a Nodal Officer he has worked to obtain EU equivalence for India in the seed trade. His representation of OECD Seed Schemes is well attested. He is a recognized seed scientist, receiving several awards in recognition of outstanding contribution to seed science and industry.

He has been actively associated with ISTA since 2007, organizing or attending workshops and meetings. Dr Keshavulu was a member at large on the ISTA Executive Committee 2016–19, and led in organizing the 2019 ISTA Congress in Hyderabad – ISTA’s first Congress in Asia.

Ruel C. Gesmundo  
Member at Large

Elected as an ISTA Member at Large (whose number forms the organization’s executive committee) was Filipino Ruel C. Gesmundo, Chief Agriculturist in the Philippines’ Bureau of Plant Industry – National Seed Quality Control Services.

His birthplace was San Pablo City in Laguna Province of Luzon, southeast of Manila, a province he still calls home. Born in 1966, Gesmundo was valedictorian of his elementary school, and “salutatorian” of San Pablo High School. He attended the University of the Philippines at Los Baños, the country’s most famous agricultural institute, where he received a Grant-in-Aid and graduated in 1987 with a Bachelor of Science degree in Plant Pathology.

He immediately began working as a Seed Pathologist for the Bureau of Plant Industry, and was placed under formal contract in 1988 as a Plant Pathologist. He has remained with the Bureau – mostly within the National Seed Quality Control Services Division – ever since, rising through the ranks as Agriculturist I, then Agriculturist II, and Senior Agriculturist in 2001.

In 2003, he became Agricultural Center Chief II, and in 2005 Agricultural Center Chief III/Chief. Gesmundo then rose to be Agricultural Center Chief III/Officer-In-Charge in 2010 and has served as the National Seed Quality Control Services-Central Office Chief Agriculturist since 2015.

While working, he pursued education: taking a Post-Graduate Diploma in Seed Pathology from the Danish Government Institute of Seed Pathology in Denmark in 1991; a Master of Science degree in Development Economics in 2000 – when he made the Dean’s List – obtained with a Bureau of Plant Industry Study Grant; and received a scholarship in 2004 to Hebrew University in Israel where he took a Master of Science degree in Agriculture, majoring in Crop Production.

He is a member of the Philippine Phytopathological Society; and past president of the University of the Philippines Phytopathological Society.

Gesmundo is married, has his home in Calamba City, Laguna, and his office at the Bureau of Plant Industry in Quezon City.

For more information and news from ISTA, visit:

www.seedtest.org
Unrealized potential to seed the world

By Indra Shekhar Singh, programme director for policy and outreach and RK Trivedi, executive director, the National Seed Association of India (NSAI)

For better prosperity of the agriculture sector, the Indian government must allow farmers market access and promote Indian varieties globally.

India is a biodiversity-rich country. We are the centre of origin for many crops, fruits and vegetables. Along with a rich bio-heritage, we have been blessed with all types of climate and soil. Our nation’s hard-working farmers, seed savers and plant breeders, along with mother nature, have co-evolved thousands of varieties to provide us with nutrition and also prepared us for drought, floods and climate change. In recent times, public institutions, along with the Indian private sector, have aggressively pursued this goal, too. Unlike other sectors, they have not only taken from mother nature but have also added to her bounty. Today, each Indian can proudly showcase to the world that we have achieved food sovereignty, while conserving biological diversity in the sui generis way under the Convention on Biological Diversity (CBD) ambit.

India has the sixth largest domestic seed market in the world. The size of the industry is over Rs 20,000 crore (200 billion) and it will continue to grow at six to seven per cent. But we are far from the saturation point. Restrictions on export of seeds weigh heavy on growth. In 2017, Indian seed exports were valued at $101 million, a paltry sum when compared to the global seed export market of $11.9 billion. This was due to the lack of both harmonisation with international regulations and a strong national seed export policy. The Modi government has the mandate to clean up the clogs and facilitate the development of mutually beneficial ties between national, regional and world seed markets.

Since 2008, India has been a participant in the Organisation for Economic Cooperation and Development (OECD) Seed Schemes, which open up seed trading potential with over 60 countries. Our hybrids in corn, paddy, forage crops, millets, vegetables and cotton are popular in many countries due to their productivity and resilience. Indian farmers and plant breeders will find new markets from Vietnam to South Africa. Apart from bringing economic prosperity to the Indian farmers, this push may also help farmers of Kenya, Egypt, South Sudan and Uganda among others, double their incomes. India needs to promote its indigenous R&D and seed export as part of its economic diplomacy. Indian seeds should become part of all aid programmes given to countries so as to popularise them.

ASEAN countries such as Vietnam, Laos, Cambodia and Myanmar also present a ready market for Indian seed exports. Currently, we are trading vegetable and fruit seeds with them, but there is a huge potential for expansion. Take the case of Vietnam and India, both countries have long coastlines, which are threatened by salinity due to climate change. We have to work on a governmental level to share our seeds and biodiversity to counter these threats.

India has many paddy varieties for salinity; we should encourage cross-breeding to climate-proof our rice production.

Closer home, Bangladesh, Nepal and Sri Lanka can be the top three destinations for all Indian hybrid seeds. Overall, Bangladesh reported 57 per cent, Nepal 88 per cent and Sri Lanka 83 per cent gap in supply in 2018-19. For paddy seeds in 2017-18, Nepal reported a gap of 701,398MT, Sri Lanka 104,000MT and Bangladesh 75,957MT. Similarly for wheat, Nepal reported 78,720MT and Bangladesh 33,490MT.

Our agro-climatic zones provide an opportunity for Indian farmers and breeders to be the leaders in seed production. We can become seed home for the world. We can exponentially increase our Gross Domestic Product (GDP) and bring prosperity to rural India by sharing our superior varieties with other nations.

We can also increase this share by creating agriculture economic zones along the lines of special economic zones (SEZs). This can be done under the “Make in India” scheme so that companies and government agencies can get tax benefits and indulge in rigorous R&D. This step will strengthen the Indian agriculture sector by breeding superior seeds and preparing crops for climate change.

Farmers and village clusters can be encouraged to grow seeds in partnership with various companies and the Indian Council of Agricultural Research (ICAR). This will ensure that the target of doubling farmers’ incomes is achieved by 2022 as they will have ready buyers for their produce. Additionally, growing seeds will fetch farmers a price far beyond the Minimum Support Price (MSP).

This Article has been truncated for print. For full article, and feedback, please email indrashekehar.singh@nsai.co.in

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Access to Seeds Index
Feeding the Future
East-West Seed’s Simon Groot wins most prestigious award in agriculture

“When I first visited Southeast Asia many years ago,” recalled 2019 World Food Prize Laureate Simon Groot in a memoir, “it pained me to see so many small farmers struggling to make a living.”

Groot, now 85, founded East-West Seed in 1982 and is the doyen of commercial vegetable breeders in Southeast Asia. Commercial breeding was then rare in the tropics, he observed, and farmers were hard-pressed to grow good crops using “low-quality, poorly adapted seeds” culled from their own fields.

Low-quality seeds, he says, saved up from harvest to harvest, result in low yields, thereby fostering poverty and malnutrition, especially among farming families. Groot harbors no romantic ideas on the subject of saving seeds, as he made plain last June in a letter to the New York Times wherein he took issue with a story, “Save Our Food, Free the Seed”: the author, he wrote, rightly criticized “corporate consolidation—driven by patent laws—in the seed industry, but underestimates the common sense of farmers around the world.

“As multinational companies acquire an increasing share of the global seed market, we face real concerns about monoculture and farmers’ rights. And seeds are indeed key,” but not seed-saving.

“Seed-saving is not a panacea,” he explained, “and can limit farmers’ economic opportunities.” Poor quality seeds may lead to the destruction of entire harvests, whereas “improved seeds increase yields and nutrition... [while protecting] against drought, pests, and disease” — a consideration not to be glossed over when “two billion people in tropical areas depend on farming for a living.”

Such insights led to Groot’s selection, after more than six decades in the seed business, as the World Food Prize Foundation’s 49th laureate. The televised award ceremony is scheduled immediately following World Food Day for 16 October in the House Chamber of the Iowa State Capitol in Des Moines, in which city the Foundation is headquartered.

The prize was initiated in 1986 by Dr Norman Borlaug, the 1970 Nobel Peace Prize winner and E.I. Du Pont de Nemours microbiologist famous as father of farming’s “Green Revolution”, and sponsored by General Foods Co. After 1990 it was funded by Bankers Trust owner and Iowa trucking company magnate John Ruan. The Foundation now has over a hundred sponsors.

Sometimes called the “Nobel Prize of agriculture”, the US$250,000 cash prize is awarded in recognition of individuals who have advanced human development by improving the quality, quantity, or availability of food in the world.

The Foundation is supported by the Government of the State of Iowa, The Iowa Economic Development Authority, and a host of leading companies and NGOs, including Bayer CropScience, the John Deere Foundation, the Rockefeller Foundation, Bankers Trust, Corteva Agriscience and Ruan Transportation Management Systems. Underscoring the award’s prestige, Groot’s selection as laureate was announced 10 June jointly by US Secretary of State Mike Pompeo and
Foundation President Kenneth M. Quinn.

Groot’s selection is just, as he is verily a legend in his own time.

Born in 1934 in Enkhuizen (the small Dutch town known for world-class seed companies) Simon Nanne Groot entered the family business, Sluis & Groot, in 1958. After training at a seed company in the US, he returned to Holland with innovative ideas for revolutionizing the Dutch seed sector, and put them so well into practice that Sluis & Groot’s hybrid flower seed breeding programs leapt to the forefront globally.

In 1965, Groot went on his first business trip to Indonesia, and in the highlands above Jakarta discovered a field of Glory of Enkhuizen cabbages that his own company bred and distributed. The variety grew well in Europe, but in Indonesia produced fewer heads, many malformed: bred to thrive in temperate climes, the Glory of Enkhuizen fizzled in the tropics.

He realized at once that here was a golden opportunity for introducing hybrid cabbage designed especially for planting in the tropics. Therein lay the germ of an idea realized in 1982 with the founding of East-West Seed by Groot and Filipino seed distributor Benito M. Domingo. Groot was 47 years old. Sluis & Groot had been acquired in 1981 by Sandoz (and more recently by Syngenta). He was ready for a new venture, and Southeast Asia was the place.

“An idea is just like a seed,” Groot avers, “starting with good quality helps, but both need careful attention and nurturing...to flourish.” He availed himself of the Holland seed industry’s technological innovation that he was part of in the ‘60s and ‘70s, and East-West Seed, with careful nurture, helped transform the lives of some 20 million or more farmers whose livelihoods improved in tandem with use of improved seed.

Groot had previously met World Food Prize founder Dr. Borlaug, and was inspired by the latter’s Green Revolution methods. “I felt strongly that we could create a second wave, this time based in Southeast Asia and focused on vegetables,” he wrote recently. Vegetables, he explained, are an essential and affordable source of the micronutrients that prevent “hidden hunger,” which he calls an “under-recognized public health epidemic, driven by heavy reliance on wheat and grain,” that “increases mortality and causes...stunted growth in children, reduced brain development, and diminished economic and social progress.”
In the Philippines, Benito Domingo was well-connected with the seed trade, agricultural industries and universities – and had a passion for seed. Groot meanwhile had more than 20 years’ seed and plant breeding experience in Europe and North America. Their roots – one in the Occident, the other in the Orient – were thus reflected in the name, East-West Seed Company. Business prospered.

Today, the company, founded in the Philippines but now headquartered in Bangkok, researches and develops high-quality vegetable seed designed specifically for smallholder farmers in the tropics, who prosper by diversifying into the sort of high-value vegetable crops never before grown in those climes. With its emphasis on plant breeding research and seed quality adapted to the locale, East-West has helped transform traditional, trading-oriented vegetable seed markets of Southeast Asia into major markets for quality seeds.

Moreover, the reliability East-West Seed’s product range is improving millions of small farmers’ lives. East-West sells more than 200 billion seeds annually. The company is a market leader for tropical vegetable seeds in Asia, and is expanding rapidly in Africa and Latin America.

The company develops not only seeds but people: working closely with local and international NGOs, Groot created East-West Seed’s Knowledge Transfer program, which trains tens of thousands of farmers each year in agricultural best practices for vegetable production.

It is Groot’s firm belief that small farmers are most important in pushing to improve global food security: 88 percent are located in the tropical parts of Asia and Africa, where they must meet the food demands of a growing and rapidly urbanizing population. East-West thus is now helping African farmers reap the same benefits as those of Asia.

Groot says being named the 2019 World Food Prize Laureate is as humbling as it is exciting, and feels the award honors not only him but the millions of small farmers who have moved from farming for survival to building sustainable businesses: “Seeing their smiles after a successful harvest,” he has said, “is the only award I need. For that reason, I dedicate this World Food Prize to them.”

A founding member of APSA, Simon Groot is one of only four of the association’s Honorary Lifetime Members.
The drive along a two-lane highway that winds through picturesque foothills in the westernmost reaches of mostly flat Suphanburi province is unexpectedly scenic: hilly terrain on the Dawna-Tenasserim range’s eastern slopes might almost be mistaken for the “Doi” landscapes of Northern Thailand – a stark contrast to the low-lying flood-plain paddy-country characteristic of Central Thailand lying just a few dozen clicks east.

The day’s destination is Pimwarat Farm, an up-and-coming agro-tourism site 220 kilometers northwest of Bangkok. It lies in the fertile Lamphoen Valley, at the base of hills in Phu Toei National Park. The farm’s namesake represents Dan Chang district in Thailand’s Young Smart Farmers (YSF) network of savvy agricultural entrepreneurs.

The farm’s lure, for tourists and for Asian Seed, is its strawberry breeding activities.

At the prompt of a GPS navigator, we turned on a dirt road marked by a wooden sign. Meeting us at a fork in the road, near maize and sugarcane patches, Pimwarat, accompanied by her 3-year-old daughter, pulled up in a ‘rot saleng’ – a sidecar-equipped motorbike – and led us along a narrow, rocky path to the heart of her operation.

In season on the farm were passionfruit, Chrysanthemum, coconuts and some mulberries, raspberries and blackberries with which she experiments. Unfortunately, no plump, juicy examples of her genus Fragaria were available to pick and bring back to Bangkok.

The fruit-setting period for strawberries there doesn’t commence until cooler weather returns in the month prior to New Year’s Day; the foci of our visit thus were breeding and propagation cycles.

Before delving into those matters Pimwarat talked of her struggle for success.

After graduating in Bangkok with a degree in accounting, she determined on returning home to life on the farm, where she urged her mom to pursue eco-friendly alternatives to chemical-intensive horticulture.

“Mom resisted at first because, as matters stood already, we earned a decent income from our limes.” But Pimwarat persisted and her mom gradually yielded.

Pimwarat initially tried her hand at short-cycle vegetables – but found herself at the mercy of middlemen: “The closest fresh market is 70km away, thus requiring high transport expenses were we to deal there. Wholesale buyers, on the other hand, come here to buy – but then they control the prices!”

Struggling to break even every month, Pimwarat realized she must bring the market and money to her by attracting to the farm end-users – consumers or, even better, agro-tourists.

To do this she needed something new and unique: “I was particularly inspired by YouTube clips and television programs about strawberry farming, which was popular in cooler parts of the North and Northeast.” She dove in head first – locating a private supplier in Phetchabun province, some 300km away, and securing roughly 4,000 seedlings for transplant on her land.

Her neighbors were skeptical at first, but “failure was not an option.” With determination, hard work and an insatiable hunger for knowledge, Pimwarat saw through a successful trial season and gained valuable lessons along the way.

“Most of the plants took a lot longer to set fruit than expected – nearly five months – and towards the end of that first season many were infested by thrips.”

She thereby learned the importance of selecting appropriate varieties, and of understanding and applying optimal environmental and input requirements.

With success in growing came success in business: her skeptics soon became customers, and several home-stay
operations and tourist-oriented shops have since sprouted up in her village, catering to the increasing influx of agro-tourists.

During our visit, however, the farm was peaceful, void of tourists.

Eager to see the plants, we headed to the strawberry nursery, which comprises 16 rows of beds, each 30 meters long, with shade cloth overhead, but exposed at the sides to allow direct morning and early evening sun, and unhindered passage for valley breezes around the clock.

Pimwarat explained that her thousands of plantlets from more than a dozen varieties are all locally acclimatized descendants of temperate-clime germplasm originating in Japan, Israel, Belgium and the United States. Adapting temperate-clime species to the tropics is often a delicate feat, requiring close attention to detail and generations of trial and error – ‘tis the essence of plant breeding.

Pimwarat stressed repeatedly the importance of selecting varieties suited to the climate, especially as strawberries require temperatures between 15 and 25 degrees Celsius to set fruit. Leading up to the flowering stage, healthy root development is promoted via ample nutrients, and water and plant protection inputs. Of signal importance in Thailand during warmer months is protecting plants from direct exposure to the overpowering midday sun while yet ensuring sufficient sunlight for vegetative processes.

Foresight and advance planning are therefore fundamental.

Pimwarat’s plantlets, cloned in a tissue-culture laboratory at Kasetsart University’s Doi Pui Research Station in Chiang Mai, are derivatives from last year’s harvest. She explained that at the end of each season, or around March, she selects the highest-yielding, tastiest and/or most pest resilient plants, from the runners of which she collects vegetative samples. She then places her orders and posts to the aforementioned lab, which sends her healthy tissue-culture cloned plantlets for the coming season.

The arrangement has clear practical advantages for amateur breeders. Tissue-culture cloning affords better varietal stability than conventional propagation – but opening and maintaining a cloning lab is expensive. When smallholders like Pimwarat partner with established laboratories, however, such technology becomes accessible and affordable.

Regarding multiplication: Pimwarat gets 30-to-50 new plants from each strawberry plantlet through vegetative propagation.

Many plants in her nursery are destined for trials across Thailand. Shipping begins in early September for customers in Nakhon Sawan, Ubon Ratchathani, Sisaket, Khon Kaen, Chumphon, Songkhla and Phuket.

But the best-of-the-best – culminating five years of trials – is her own Pimwarat variety*, which realizes its ultimate potential in the very place for which it is adapted to grow – the Pimwarat Farm in western Suphanburi. Pimwarat is confident this year will be her best.

Asian Seed looks to return this “winter” to taste whether the Pimwarat variety lives up to high expectations.

*The Pimwarat variety is in the process for varietal protection registration in accordance with Thailand’s PVP Act.
ASBENINDO means Seed In Indonesia

Indonesia is one of the largest, most populous countries in the APSA region. It has the world’s fourth largest population, and ranks among the top 20 agricultural nations as measured by both land under cultivation and arable land – which, according to the most recent figures from the Food and Agriculture Organization of the United Nations, in 2016 stood at 57 and 23.5 million hectares, respectively. *see end note

Still, as the sea is Indonesia’s only uninterrupted surface transport artery, and as 51 percent of the land is forest, commercial agriculture has room yet to grow; and, with 264 million mouths to feed across 922 permanently inhabited islands (Indonesia comprises more than 17,500 islands and is the world’s largest island country), the archipelago presents a fascinating case study in seed industry development and food security.

To find out more about Indonesia’s expanding seed sector and market-driven strategy for food self-sufficiency, Asian Seed speaks with Ricky Gunawan, chairman of Asbenindo – the Indonesian Seed Association:

Can you tell us generally about your organization?

Asbenindo is the first non-profit seed industry organization in Indonesia. Members include private Indonesian companies, state-owned enterprises, cooperatives and multi-nationals dealing in seed for food crops, horticulture, plantation and forest plants. Member activities cover research, breeding, seed production, export and import as well as domestic seed trade. Since founding in 1991, Asbenindo has developed in multifarious ways: membership has increased and functions have expanded. Most notable has been Asbenindo’s role in advocating various laws, regulations, government policies and programs.

Do you see yourselves as a forum for seed industry discussion?

Yes. Asbenindo serves as a conduit for communication and consultation between member companies and officialdom, e.g.: the Indonesian government, international agencies and foreign governments via their embassies.

Please tell us about your policies and overall strategy with regard to seed industry development.

Sure. We have a fourfold strategy:

First, to serve as a forum in which aspirations can be communicated,

processed and followed-up together, thereby to unify our membership. Generally, we promote policy initiatives aiming at a better regulatory climate for Indonesia’s seed business.

Second, we have partnered with government since our founding. Asbenindo actively supports government agricultural development programs, including those centering on agribusiness.

Third, through provision of superior quality seed to farmers, our members promote agricultural development and greater farm productivity – which naturally benefits farmers and their families through increased income. We hold this a principal support for Indonesian agriculture. Many superior new varieties have been introduced by Asbenindo members.

Fourth, we take a unique approach to

Asbenindo participates in the National Seed Association Meeting as part of the 2018 APSA Asian Seed Congress in Manila, the Philippines, which was attended by representatives from seed associations of APSA-member countries. Indonesia was represented by Asbenindo’s General Secretary, Mr Nana Laksana Ranu (back row, 8th left).

Asbenindo’s Secretariat regularly meet to act on seed sector challenges and opportunities.

Asbenindo’s Nana Laksana Ranu (left) and Ricky Gunawan (far right) discuss the seed industry with Hari Priyono, Indonesia’s Secretary General of the Ministry of Agriculture.

Asbenindo’s General Secretary, Mr Nana Laksana Ranu (back row, 8th left).
developing seed breeders, which I shall explain.

In general, Indonesian seed companies do not have available to them enough land to produce ready-for-distribution seeds. To overcome this obstacle, they work with existing local seed growers, providing necessary facilities and standard operating procedures for breeding seeds, then gathering resultant yields as per agreements signed with the breeders, who are responsible for planting, maintaining and harvesting. As a result, many breeders now carry on seed propagation in collaboration with Asbenindo members.

How many members do you have now?

Asbenindo has been experiencing significant growth in membership. For 2019, the total includes 72 companies – 60 private Indonesian concerns; two state-owned companies and ten multi-nationals.

You’ve mentioned Asbenindo achievements over the years – can you detail a few?

Certainly. We’ve been quite active in development of national agricultural and forestry enterprises. Introduction of new varieties and the development of seed breeding in Indonesia could hardly have taken place without us. Our organization is a member of the Plant Variety Release Team (TP2V), the National Horticulture Council, the National Corn Council and also was one of the initiators of the National Rice Council.

Our efforts have led to a sea-change in government policy towards developing the seed industry:

- Seed remains free of the 10% Value Added Tax (VAT)
- Rates for agricultural seed quarantine services have been reduced

We consistently participate in the discussion of draft legislation

We also conduct meetings and hearings with the Indonesian Parliament.

Other Asbenindo efforts include:

- Assisting company members to obtain accreditation from the Seed Certification and Quality System (LSSM)
- Participation in establishing Professional Certification Institutions (LSP) by compiling seed competency standards
- Producing position papers on the national and international seed industries
- Joining international meetings on quarantine procedures in import of seeds
- We’ve been on the National Seed Revitalization team since 2006
- We undertake various exhibitions and send speakers to national and international seminars
- Afford guidance and assistance to member programs
- Visit and review member activities

Finally, we are obviously active members of the Asia Pacific Seed Association (APSA).

*Ricky Gunawan (right) discussing seed trends with APSA’s Dr Kanokwan Chodchoey.*

Ricky Gunawan, Chairman of Asbenindo, during a visit to an Indonesian garlic seed plantation.

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*The FAO defines “arable land” as that which can be tilled or plowed and is under “temporary crop” cultivation (e.g. cucurbits). Agricultural land with “permanent crops” – vineyards, rubber plantations, orchards, etc. – the FAO does not consider “arable”.*
Action ASEAN:
Responsible Investment Guidelines

Strengthening prospects for regional food security through sustained emphasis on responsible agriculture in the Association of Southeast Asian Nations (ASEAN) was the general theme of a workshop in Bangkok 30 - 31 July. In attendance were representatives from APSA and more than 60 other organizations.

Featuring lectures, as well as round-table and panel discussions, the workshop was co-hosted by Grow Asia, the International Institute for Sustainable Development (IISD), and the Food and Agriculture Organization of the United Nations (FAO), in collaboration with the ASEAN Secretariat. Funding was provided from the Swiss Development Cooperation and the Federal Ministry for Food and Agriculture of Germany. The focus was on implementing operational aspects of the “ASEAN Guidelines and Action Plan on Responsible Investment in Food, Agriculture and Forestry (FAF).”

Specifically, ten guidelines were developed through an inclusive, multi-stakeholder process with support from the organizations listed above and the World Bank. According to the event brochure, they were “inspired by, and grounded in, the Committee on World Food Security’s Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI).”

These address the roles and responsibilities of state and non-state actors (especially large-scale enterprises) and the challenges peculiar to ASEAN member states. Although voluntary, they derive from the United Nations’ Sustainable Development Goals.

The Guidelines’ primary purpose is promoting investment in food, agriculture and forestry that contributes to regional economic development; food and nutrition security; food safety; equitable benefits; and sustainable use of natural resources. Workshop topics included: the background of the guidelines; climate change action in the context of said guidelines; investments within the ASEAN countries; contract farming; and developing institutional capacity in the region.

Attending on behalf of APSA were Executive Director Dr Kanokwan Chodchoey and Technical Coordination Manager Kunaporn Phuntunil.

“We had a fine opportunity to interact with other key stakeholders from ASEAN’s food and agriculture sectors, particularly in recapping the 17 Sustainable Development Goals, which are central to the ten guidelines and action plan,” said Dr Kanokwan. “APSA already actively adheres to most of these guidelines, which are based on principles closely aligned with our own mission and objectives.”

(See 10 guidelines in box below)

Dr Kanokwan averred that the guidelines and action plan can be successful only through strong public and private sector cooperation. With regard to smart and responsible investments, she urged stakeholders not to “re-invent the wheel, trying to create something that already exists.”

“By reaching out, forming partnerships and collaborations with like-minded organizations, time and resources are conserved – and the overall impact is much greater,” she said.

Stay tuned for more updates on the Guidelines and Action Plan.

10 Guidelines for Responsible Investment in Agriculture and Food Systems

1) Contribute to food security, food safety and better nutrition

2) Contribute to sustainable, equitable and inclusive economic development and poverty eradication

3) Contribute to equality, engagement and empowerment for women, young people, indigenous peoples and marginalized groups

4) Respect tenure of land, fisheries and forests, as well as access to water

5) Contribute to the conservation and sustainable management of natural resources, especially forests

6) Support sustainable and appropriate technologies and practices for resource efficient, productive and safe FAF systems

7) Increase resilience to climate change, natural disasters and other shocks, while contributing to climate change mitigation and adaptation

8) Respect the rule of law and incorporate inclusive and transparent governance structures, processes and grievance mechanisms

9) Assess and address impacts of responsible FAF investments and promote accountability

10) Strengthen regional approaches to responsible investment in FAF in ASEAN
KOREA SEED EXPO 2019

2019. 10. 16.(Wed)~18.(Fri)
K-Seed Valley, Gimje, Korea

* K-Seed Valley is a R&D complex for plant breeding companies

1. New varieties evaluation in demonstration fields and greenhouses
2. Business programs for international seed trade
3. Various experience programs for everyone

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Shipping industry braces for low-sulphur compliance impact

The latest global mandate to phase out greenhouse gas emitting compounds from bunker fuels spells new surcharges and potentially longer ETAs for ocean freight-going consignments of seed, grain and other plant material. Asian Seed reports:

Starting 1 January, 2020, the International Maritime Organization (IMO) will enforce IMO 2020 – a regulation that caps sulphur content in marine fuel at 0.5% m/m (mass by mass), adjusted from the 3.5% m/m limit in force since 2012.

The adjustment is part of a UN-backed scheme to reduce ships’ 2050 greenhouse gas emissions by at least 50% from 2008 levels. The underlying aim has environmental justification: to cut sulphur emissions blamed for causing respiratory diseases and acid rain that damages antique marbles, vegetation and wildlife.

Compliance costs are expected to affect supply chains, however, with yet unknown consequences for international trade.

Observers say the new limit will force 50 - 60 percent fuel cost increases, reckoned at up to US$60 billion yearly. Low-sulphur fuel compliant with the 2020 rule currently costs about 50% more than high-sulphur fuel used by ocean carriers in most regions.

Shipping lines say the costs vastly outweigh total annual profits. They are therefore currently collecting from customers a low-sulphur surcharge (LSS) on routes to Europe and the US West Coast. Depending on the shipping line, the LSS may be factored into other existing or new surcharge schemes with varying names; for example, a Green Fuel Surcharge (GFS); an Emission Control Area Surcharge (ECA); Low Sulphur Fuel Surcharge (LSF); Bunker Adjustment Factor (BAF) and/or Marine Fuel Recovery mechanism – each with a differing formula for calculation.

Such surcharges are already collected ahead of schedule by global shipping companies, at Chinese ports, as well as in Vietnam and Thailand.

Saigon Economic Times reports that most shipping companies in Viet Nam collect a US$100 per twenty-foot-equivalent-unit (TEU) low sulphur surcharge (LSS) on some routes and will apply LSS on all remaining routes once the new rule takes effect.

According to a report published during the first week in June by the Thai National Shippers Council (TNSC) an outbound LSS surcharge of US$20 per TEU (and US$40 for 40-foot containers) on freight bound

Focused on Innovation

Centor Oceania is an independently owned and operated business servicing the Asia Pacific in all aspects of seed applied technology.

Working closely with seed companies to better understand their individual needs and requirements, Centor Oceania takes the approach of tailoring solutions to problems rather than offering a one size fits all approach. To better understand this, it’s helpful to know that the origins of the company was originally in the toll treatment of seed for its customers, so we understand the seed treatment process very well, including all the challenges that go with it.

Centor Oceania is not an offshoot of a larger manufacturer of unrelated products; our nucleus stems from the seed industry.

At the very heart of what we do is Research and Development. A dedicated team of PhD qualified scientists work diligently to develop and strengthen what we offer, but more importantly create new and innovative ways to improve and advance the finished product for our customers.

Through building strong, long term relationships with our customers we gain a deeper insight into the challenges each of them face which then enables us to collaborate on projects to help address those challenges.

Being environmentally responsible in all we do is in all of our best interests and Centor Oceania is constantly striving to achieve better results with this in mind.

A high focus for our polymer coating materials business is to offer our customers an environmentally friendly or bio-degradable option, while also ensuring that we maintain our very high quality standards.

Representatives from Centor Oceania will be attending the APSA conference in November in Kuala Lumpur on table F16, if you would like to have a meeting to discuss anything further please email: info@centoroceania.com
for Europe from Thailand was collected. At Chinese ports and Hong Kong identical surcharges were collected on inbound freight.

Compliance means shipping lines will have to shoulder high initial costs.

Hapag-Lloyd line, for example, estimated first-year costs at US$1 billion for its fleet. Other carriers shoulder similar costs. For Maersk and MSC, the two largest shipping lines, the total is anticipated to top US$2 billion each. The figures are based on the price difference between 3.5% bunker fuel and compliant 0.5% fuel, and the cost of new equipment. All major lines – including those mentioned above, CMA CGM, ONE, OOCL and APL – are collecting surcharges.

After 1 January collection will spread world-wide for all vessels. Ships of 400 gross tonnage or more, voyaging to ports or offshore terminals, must have an International Air Pollution Prevention Certificate issued by the ship’s flag state. About 100,000 transport ships are believed to operate globally. In 2010, 9,535 container ships were registered, of which about 6,000 were considered “large”. The IMO estimates some 70,000 vessels will be hit by this new rule.

Before IMO 2020, fuels available to shipping lines included: marine gas oil (MGO), marine diesel oil (MDO), intermediate fuel oil (IFO), marine fuel oil (MFO), and heavy fuel oil (HFO). All have high sulphur content. Together they are known as bunker fuel, described as excess fuel left over after refineries have processed gasoline and diesel; it is dense and heavy, and must be boiled before it will flow into the vessels’ engines.

Ships can meet the IMO requirement using low-sulphur compliant fuel oil, methanol or other gas which when ignited has negligible emissions. To that end, the IMO in 2015 issued an International Code for Ships Using Gases and Other Low Flashpoint Fuels (the IGF Code).

Aside from being more expensive than conventional bunker fuels, low-sulphur fuel is not as readily available, and questions remain about whether production capacity will be able to meet demand. That’s why, when two companies, MSC and Evergreen, started installing scrubbers, others followed suit.

Ships may also meet SOx emission requirements by using exhaust gas cleaning systems or “scrubbers”, which clean sulphur oxides from the engine and boiler exhaust to required levels. Scrubber-equipped vessels can carry fuel with sulphur content of more than 0.5% – but not in the same tanks used for low sulphur fuel, and the set-up must be officially approved by the ship’s country of registry. Scrubber installation to allow continued burning of high sulphur bunker fuel costs an estimated US$2 - $5 million per vessel. As the same fuel tanks cannot be used for low-sulphur and non-low sulphur fuels or their alternatives, reports suggest some ships need three sets of tanks, resulting in less cargo space.

Scrubbers, ironically, function by washing the exhaust with sea water into the ocean. Thus, though a fix for air pollution, their effect on the ocean is doubtful. In addition, they are not universally approved, adding further complication for carriers, as ships so fitted must check, before calling, whether a port has any ban or additional requirements relating to use of open loop scrubbers or for dealing with wash water from scrubbers.

Delays in ETAs?

Shippers necessarily require cargoes be shipped as soon as possible, as customers increasingly demand real-time cargo tracking, and transparent, reliable shipping windows. This is especially true with the seed industry’s time-sensitive products.

However, should shipping lines fail to recover additional expenses anticipated from surcharges, shipping windows for some routes could significantly be extended, resulting in more complicated – and potentially more costly – logistics.

Analysts have warned that carriers struggling to rectify their balance sheets may opt for fuel conservation measures, including reducing the average speed of ships and dropping secondary ports from rotation to ensure transit time to key points remains competitive.

The result would be fewer direct port calls, inducing a greater need for transshipment and feeder operations, as well as “nodal shipping” (combined sea, air and road transport) to reach market. In such cases, getting seed from points A to B may be more tricky and time-consuming.

IMO 2020’s impact on the seed industry will be followed here at Asian Seed. Our interest is in what seed traders are experiencing, whether the additional costs are burdensome, what shipping agents have to say, and whether consignments are affected. We’d love to hear APSA members’ opinions on the new regime.

Finally, it is worth noting the IMO is organizing a Symposium on IMO 2020 and Alternative Fuels for 17 - 18 October in the Main Hall at IMO Headquarters to address the many questions raised regarding the new rule.

The one-and-a-half day event is aimed at “raising awareness” and will be live-streamed, with remote participation open to member governments, IGOs, NGOs and the general public at streaming.imo.org.

Come and meet us at APSA in November. Book a time to see us at table F16
Syngenta Vegetable Seeds
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2,400 employees around the world

Number 1 in cucurbits (watermelon, squash, melon, cucumber), brassicas (cauliflower, broccoli, cabbage, Brussels sprout) and sweetcorn

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- Flavor
- Uniformity
- Quality
- Shelf-life
- Appearance

A taste of VEG
150 years
Striving for self-sufficiency through quality seed provisioning

Mohd Nasir Bin Warris, 59, is Acting Director General of Malaysia’s Department of Agriculture, where he has worked 36 years in various capacities, spanning the spectrum from horticulture to trade — and including seed production. Here, he reflects on his path through seed so far, shining a light on the budding Malaysian industry’s present circumstances and future prospects:

After graduating from the University Pertanian Malaysia (now Universiti Putra Malaysia) with a bachelor’s degree in Agricultural Sciences, I joined the Department of Agriculture of the Ministry of Agriculture and Agro-based Industry in December 1983. In my first six years I gained a lot of valuable experience as a junior officer, mostly working on the developing mango industry in the north of Peninsular Malaysia, in a project funded by the Asian Development Bank. By 1989, I moved to the Northwest Selangor Integrated Agricultural Development Project, where I worked on perennial crops, and ultimately got transferred to Sungai Burong Paddy Seed Processing Centre as head of the centre. This is where my professional journey in seed officially began.

Though Malaysia has long been self-sufficient for mainstay crops like oil palm, rubber, cocoa and black peppers, success with rice has been a bit of a challenge. Throughout the 1980s and early 1990s, we were only able to produce a third of our total paddy seed requirements. Our farmers saved seeds season to season, and were only allowed to purchase certified paddy seed once in three planting seasons.

To get up to speed, I took a two-month international training course in 1996 on seed production, processing and testing in Sweden, which was supported by the Swedish International Development Agency (SIDA). The knowledge I gained proved to be invaluable. Upon my return to Malaysia, I was part of the team to set up a new paddy seed processing plant in Sungai Burong. Built up from ground zero, the plant was the biggest during that time, with a capacity of 8,000 tonnes per year — and, for that, 1,200 hectares of seed farm was established.

It was the sixth plant in Peninsular Malaysia, and in less than two years we proved to be the top producer of certified paddy seed in the country. One of our first objectives had been to increase rice productivity through planting certified paddy seed. We introduced mechanized transplanting methods for certified paddy seed production, which was a first for Malaysia. At first, farmers were reluctant to adopt the technology due to high initial investment, but the Malaysian government encouraged them by offering 30% higher prices for raw seed sold to the seed processing plant. Such an incentive convinced many of them, and now more than half the area planted to rice in Northwest Selangor (19,000 ha) is growing paddy from mechanically transplanted seedlings.

In the past, the government, through the Department of Agriculture, produced paddy seeds, vegetable seeds and fruit clonal planting materials. These were sold to farmers at subsidised prices. We received complaints from the private sector, that a government agency’s involvement in seed production did not encourage private sector participation. So, in line with the National Agrofood Policy 2011-2020, we proved to be the top producer of certified paddy seed in the country's paddy seed requirements.

Developing the seed industry is key to the Malaysian government’s strategy, as highlighted in our National Agrofood Policy 2011-2020. Moreover, our Prime Minister, Tun Dr Mahathir Mohamad, actively encourages the agricultural sector to explore alternative crops to improve food security and reduce dependency on imports.

Malaysia currently produces only 10% of its vegetable seed requirement, with the other 90% coming from imports. Only two vegetable seed production companies in Malaysia are involved in the entire seed value chain: from developing new varieties, to seed multiplication and, finally, to seed distribution. Mostly, other seed companies are just seed trading companies, importing vegetable seeds, hybrid watermelon and melon seeds, hybrid sweetcorn and grain corn seeds.

Today, with the involvement of private paddy seed companies, Malaysia is able to produce 100% of the country’s paddy seed requirements.

Malaysia has a lot of advantages for seed businesses. We have a resourceful pool of talent, with young and ambitious graduates from several fields. Furthermore, the Malaysian climate is ideal for year-round seed production. Moreover, Malaysia offers 100% foreign ownership of vegetable seed companies.

In conclusion, Malaysia is keen to facilitate and promote the seed business. Nonetheless, I must stress that we will not compromise on biosecurity matters. As officers with the Department of Agriculture, it is our duty also to ensure that all agricultural produce is safe for consumption.

With that, I look forward to welcoming you all to Kuala Lumpur this November for the 26th Asian Seed Congress.

—Mohd Nasir Bin Warris
The Special Interest Group for Vegetables and Ornamentals’ big project this year is a study tour in Israel, 21 – 28 September. Theme of the tour is Innovative Technology in Breeding and Seed Production. Some 20 participants – all members of the SIG – have signed-up. The itinerary includes visits to seed technology and seed production companies.

Regarding the ASC 2019 technical session: three topics were finalized for inclusion. One focuses on Sunflower (Helianthus annuus) breeding market in Asia. Another, on knowledge transfer to smallholder farmers. The third takes into account consumer perceptions with regard to the need to reduce pesticide misuse and improve food safety in vegetable production. The last topic to be presented on covers remote sensing technologies for seed companies.

Chair of the Working Group on Integrated Vegetable and Ornamental Seed Companies (WIC), Dr Sumitra Kantrong, informed SIG V&O members that the group had received a new member and the agenda of WIC meeting on 24th November is under preparation.

3rd Asian Solanaceous Roundtable

The Research & Development Advisory Group on Vegetables and Ornamentals is organizing the 3rd Asian Solanaceous Roundtable on 22 – 25 October 2019 at Bengaluru, India. APSA has partnered with the Indian Council of Agriculture Research, the Indian Institute of Horticultural Research and the Society for Promotion of Horticulture. The Federation of Seed Industry of India and the National Seed Association of India have agreed to assist in promoting this event.

The Special Interest Group on Field Crops chair, Dr P. Sateesh Kumar, resigned. After thorough discussion, members agreed that a study tour of the Philippines should be postponed to March 2020.

Regarding the ASC 2019 technical session: two panels will be formed for the Joint Special Interest Groups on field crops & cover crops session, which will last two-and-a-half hours while Hybrid rice will have a separate session.

Speaker topics include Integrated Pest Management (IPM) for Fall Armyworm in Maize Production and Bio-Tech Applications for Rice Testing and Breeding. Regarding cover crops: there will be a presentation about value addition agriculture trends in Malaysia, such as the use of cover crops in making ‘green’ manure, for example.
Standing Committees (SCs)

The Standing Committee on International Trade & Quarantine, previously the Standing Committee on Trade & Marketing, has changed its structure, with the Phytosanitary Working Group now merged into this committee. Other structural changes included: resignation of the chair, Mr Niranjan Kollipara; succession of Mr Jan Panman on Mr Robert Keene’s retirement; the approval of new members Dr Sumitra Kantrong, who also chairs the WIC, and Ms Elvire Petel from GNIS.

Committee members approved hiring Dr Michael R. Turner to conduct a review on intellectual property legislation for plant varieties in the Asia and Pacific region. The document will be used to establish APSA’s IP Position Paper and with implementation status unknown; and countries with inactive old laws or new laws not yet implemented. Vietnam, a UPOV member, was approved as another focus case for the study.

The draft will be presented in the technical session during APSA’s Asian Seed Congress 2019. Other topics discussed during this meeting were: the FAO Seed Study report; APSA IP position paper, Plantum & Oxfam report; and a plant variety registration update on experience and challenges.

The Standing Committee on Intellectual Property Rights & Biodiversity held their second meeting for 2019 during the International Seed Federation’s World Seed Congress in Nice, France. The principal order of business was following up action plans agreed upon during APSA’s Midterm Meeting.

Committee members approved hiring Dr Michael R. Turner to conduct a review on intellectual property legislation for plant varieties in the Asia and Pacific region. The document will be used to establish APSA’s IP Position Paper and the committee agreed to meet ad hoc early in August to discuss the draft and outline of the review. It was agreed that two categories of country have emphasis: countries with “non-UPOV” PVP laws

With implementation status unknown; and countries with inactive old laws or new laws not yet implemented. Vietnam, a UPOV member, was approved as another focus case for the study.

The draft will be presented in the technical session during APSA’s Asian Seed Congress 2019. Other topics discussed during this meeting were: the FAO Seed Study report; APSA IP position paper, Plantum & Oxfam report; and a plant variety registration update on experience and challenges.

The Standing Committee on Seed Technology’s proposal on an accreditation system, made during APSA’s Midterm Meeting, was described by WIC members as an ambitious initiative. Some concerns were expressed, however, about the implementation process. The concept is to create an accreditation system for seed technologists in Asia so that they can earn points by participating in various workshops. Points earned will reflect their credit and expertise in seed technology.

At the technical session during ASC 2019 representatives from small, medium and multi-national companies will have a roundtable talk about the experience and expertise sharing from leading company representatives who have achieved great business results by applying innovative technology in their production and processing lines. Topics to be discussed include: storage management; adding value to seed; quality control; and seed processing.

Names of selected companies will be announced soon.

Congress Workshop

THEME: INTELLECTUAL PROPERTY RIGHTS PROTECTION
TIME & DATE: 13.00-17.00, MONDAY, NOVEMBER 25, 2019
VENUE: EXTENSION HALL 7A & 7B, KLCC, KUALA LUMPUR, MALAYSIA
FREE TO ALL ASC 2019 DELEGATES
NO REGISTRATION REQUIRED
MORE DETAILS VISIT APSACongress.COM
Chia Tai expands to India and the Philippines

Chia Tai, one of Thailand's largest integrated agricultural companies, has expanded its business in Asia, launching new brands and opening offices in India and the Philippines. The expansion, consonant with the theme “Growing Better, Together”, is part of a strategy aimed at making the company a principal regional agro-business actor.

To mark the brand launch and opening of their office in Bengaluru, Chia Tai India selected seed varieties and hybrids thought to have strong appeal for Indian farmers. When the company hosted its first Field Day at Kannamangala in Bengaluru, dealers and farmers from across India visited the demonstration plot featuring tomatoes, hot peppers, watermelons, melons, cucumbers and sweet corn (the latter from Chia Tai’s latest breeding program).

In the Philippines, Chia Tai has opened a new office — in Fairlane sub-district of Tarlac City on the island of Luzon — and likewise marked the occasion with a Field Day. The 3,000 square-meter demonstration field was planted to the company’s “outstanding varieties” — sweet and waxy corn, watermelons, tomatoes, and bitter gourds. Chia Tai says that, aside from providing good yields, the varieties are highly tolerant of pests, diseases and unstable weather.

Chia Tai representatives offered presentations during the Field Day on various products, techniques, and cultivation methods best suited to market demands.

Said Chia Tai CEO Manas Chiaravanond: “India and the Philippines are markets with high growth potential. Expanding the seed business unit to these markets is a major step in building on our success in the Asian region.” He said the company’s products and services are in line with market demands, and that Chia Tai’s agricultural innovations and expertise can “play a leading role” in improving farmers’ lives while the company itself becomes a paramount player in Asia’s fruit and vegetable business.
Bengaluru beckons for ASRT III

Hundreds of breeders, technologists, researchers and seed executives from leading international companies and research institutes will attend the third Asian Solanaceous Round Table (ASRT III) this October in India.

Some 20 experts in Solanaceae crop research and market trends will deliver papers and lead discussion. The event affords scientists and stakeholders from the public and private sectors a forum where the Solanaceae or Nightshade family is the exclusive focus. Solanaceae include tomato, capsicum (sweet and hot peppers) and eggplant. They are of high economic and cultural importance throughout Asia and the world.

Scheduled for the Sheraton Grand Bangalore Hotel at Brigade Gateway in Bengaluru, India, 22 - 25 October, ASRT III is organized by APSA in partnership with the Indian Council of Agricultural Research (ICAR), the Indian Institute of Horticultural Research (IIHR), and the Society for Promotion of Horticulture (SPH); and in association with the Federation of Seed Industry of India (FSII) and the National Seed Association of India (NSAI).

In addition to presentations, panel discussions and Q&A sessions focusing on R&D and Asian country market trends, the program features a break-out session for participants to explore opportunities in public-private partnerships and collaboration.

Moreover, a field visit hosted by IIHR on the fourth and final day will complement the first three days of technical sessions. The latter are organized as follows:

1. Solanaceous Crops: Modern Breeding Techniques, Resistance to Diseases and Pests
2. Germplasm Diversity
3. Molecular Markers and Genomics
4. Quality Traits in Solanaceous Crops
5. Modern Production and Processing Techniques
6. Market Trends & Value Addition
7. Public – Private Partnership (breakout)

Leading researchers in...
For vegetables, quality is directly linked to market value and farmer income. Both productivity and quality of pepper and tomato are often reduced by biotic and abiotic stresses. The World Vegetable Center breeding programs focus on developing high-performing and well-adapted lines with resistance alleles to some of the most important stresses. Dr. Derek Barchenger is the Pepper Breeder at the World Vegetable Center in Tainan. He holds a Ph.D. from New Mexico State University. Derek has extensive experience in international agriculture and food security.

From Thailand’s National Center for Genetic Engineering and Biotechnology (BIOTEC) comes Dr. Channarong Seepiban to present a paper on his work in “Development of immunodiagnostic assays for detection of devastating diseases of cucurbits in Thailand”. BIOTEC has successfully produced a catalog of antibodies for detection of plant pathogens that cause cucurbit diseases – antibodies that are commercially available and currently in use. Dr. Channarong uses such antibodies to develop various enzyme-linked immunosorbent assays (or ELISA) for efficient detection of various plant diseases. The doctor’s areas of interest lie in production of highly specific monoclonal antibodies to Capsicum chlorosis virus, Watermelon silver mottle virus and Tomato necrotic ringspot virus, and in Development of ELISA-based detection. The ASRT was created as a platform for seed company executives and scientists to work towards solving solanaceous crop problems in the Asian region.

The inaugural edition was also held in Bengaluru, in 2014, with the follow-up ASRT II held 2017 in Bangkok.

For more details about the ASRT III agenda, including speakers and topics, and to register, please visit apsaseed.org
The Asia and Pacific Seed Alliance, Ltd. (APSA) has signed a Memorandum of Understanding (MoU) to cooperate with Thailand’s National Science and Technology Development Agency (NSTDA) in promoting seed sector collaboration, innovation and development in Asia.

The MoU was signed on July 31 by NSTDA's Prof. Dr. Prasit Palittapongarnpim (Vice-Director), and APSA's Mr. Tahir Saleemi (President), with NSTDA Vice President Ms. Walaithip Chotiwongpipat and APSA Executive Director Dr. Kanokwan Chodchoey signing as witnesses.

Held at NSTDA’s north Bangkok Business Center in Thailand Science Park, the signing ceremony was attended by APSA Vice President Mr. Wichai Laocharoenpornkul, APSA past presidents Mr. Manas Chiaravanond and Dr. Chaierg Sagwansupakorn, and NSTDA and APSA Secretariat staff.

Article 1 of the 20-page MoU, the term of which is three years unless otherwise extended, describes its goals (summarized below):

1) To jointly collaborate on agreed-upon research and development
2) To jointly promote and support capacity building and technology transfer activities – e.g., training and workshops – including research and innovation
3) To collaborate on human resource development to sustain agricultural businesses by affording opportunities to farmers and students via the NSTDA development program
4) To exchange information through social and print media on agreed-upon subjects

The scope of the agreement covers not only technical information and practical skills but biological materials (the latter specified under a Transfer Agreement). APSA and the NSTDA will organize “activities of mutual interest including cooperative research, conferences, training” and participate in business and technology “matchmaking.”

Article 2 allows for individual contracts covering projects within the MoU’s scope but does not mandate them – so the two parties can enter a contractual agreement on a given project, or not, as they see fit.

Article 4 covers intellectual property, including trademarks, logos and crests, arising out of joint projects and mandates in essence that separate contracts must be signed on a case-by-case basis regarding usage thereof.

Fortifying PPP Priorities

Prof. Dr Prasit Palittapongarnpim opened the ceremony by noting that NSTDA has been active in the “seed cluster” since 2006, working directly with research institutes and private companies as part of a greater “seed hub” strategy to develop the seed industry by addressing R&D needs of key stakeholders – especially through promotion of downstream value-addition and by emphasizing exports.

“This certainly is a significant milestone for Thailand and Asia Pacific collaboration in seed development research with the private sector,” Dr Prasit observed. “The NSTDA appreciates the importance of the seed industry, which is an important upstream business affecting agriculture, the agricultural industry, and food and other down-stream industries,” he continued, “all the way through to food security and national stability.”

“I sincerely hope that this cooperation will create sustainability for the Thai seed industry, ensure food security, strengthen the private sector and generate sustainable income for farmers while creating an impact on the downstream industry.”

In his remarks, APSA President Tahir Saleemi suggested that signing of the MoU only fortified an already-strong relationship. He pointed out that APSA member companies recently collaborated with researchers from NSTDA’s National Center for Genetic Engineering and Biotechnology (BIOTEC) in developing a disease resistant screening protocol for tomato.

“Though APSA has collaborated with the NSTDA, this MoU will effectively be the first under our newly-registered entity name, the Asia and Pacific Seed Alliance, but certainly not our last. This fact underlines the great importance that APSA and the NSTDA place in R&D, specifically in the development of the seed sector of Asian countries through a proven PPP (Public-Private Partnership) model.”

Mr Saleemi added that more than 80% of APSA members are based in Asia, and more than 50% have their own R&D facilities in-house.

“All of these companies have direct links to end users – the market and, indeed, the farmer,” he said. “Marrying these factors with the NSTDA’s advanced technological resources and cutting-edge expertise will only have synergistic results for all, and I’m proud to play my part with the signing of this agreement.”
APSA NEW MEMBERS

Aus Bangla Agro
Mission Gate, Gohail Road,
Bogra, Bangladesh Bogra 5800
Rajshahi Bangladesh

Kashem Seed Company
146, Siddique Bazar Dhaka 1000
Dhaka Bangladesh

Curimapu Vegetable Seeds
Lote 2 Y 3 Parcela N°15 San Luis
De Cerrillos Bulnes 3930000
Chile

Kehui Seed Co., Ltd.
Da Yang Ping Industrial Park
Sanming City 35440 Fujian China

Beijing Mantian Seeds Co., Ltd.
Rm. 1410 Bldg. 2 Kexing
Changping Beijing 102200 China

Jiangxi Huanong Seed Co., Ltd.
No 888 Jianshe Road Nanchang
330006 Jiangxi China

Changsha Renfeng Seed
Industry Co., Ltd.
Room 608, Yingang Crystal City
Area A, Furong District, China
East Asia Changsha City 410000
Hunan Province China

Heilongjiang Meiya Seed Co., Ltd.
#32 Dongping Road Fujin
156100 Heilongjiang China

Hainan Lvchuan Seed Co., Ltd.
101, Jindao Building, Haikou
571100 Hainan China

Jiuquan Ruiyan Seed Co., Ltd.
Room 501 Building 36 District A
Shibo Huayuan Jiuquan(735000)
Gansu P.R China. Jiuquan
735000 China

Huayi Seeds Co., Ltd.
No. 20 Henan Road Shihe
District Xinyang 464000 Henan
Province China

Anhui Fengda Seed Co., Ltd.
Fengda International, No.10555
Fanhua Avenue, Hefei 230000
Anhui China

Pan-Asian Seeds Co., Ltd.
No. 15, Alley 15, Lane 267
Hsin Hsing Road Tainan 70241
Chinese Taipei

Doriane SAS
31 Avenue Jean Médecin Nice
Nice 06000 France

Arizona Seeds Pvt Ltd
Luv Khush Market Patiala Patiala
147001 Punjab India

Star Field Crop Science
Flat No.17, First Floor, View
Tower-“B” Block, Lakdi Ka Pool,
Hyderabad-500004 Telanagan
India

Duflora Agri Products Private
Limited
H No 7-69/2 Survey Nos 318/A
318/Aa Medak Dandupally
502336 Telangana India

Eknaam Printers And Packers
275,1St Floor, Tagore Park
Delhi 110009 Delhi India

Ruchi Hi-Rich Seeds Private
Limited
101, The Horizon, Nath Mandir
Road Indore 452001
Madhya Pradesh India

BSV Seeds
H No 71 Sy No 149/B
Siddarameshwar Nilay Vijayapur
586103 Karnataka India

Jamjam Group
8-2-418/2 Road No:4, Banjara
Hills Hyderabad 500034 India

Takii Seeds India Private
Limited
Plot No. 2-R, Obadenahalli,
Kiad Buddhist Industry, Bengaluru

Rural District Bengaluru 561203
India

Semenac Seeds Pvt Ltd
Gut No. 946, At Post. Kunjirwadi,
Naigaon Road, Pune Taluka-
Haveli, 412201 Maharashtra India

Cava Seeds Llp
546/2, Ground Floor, Shri
Nikethan Bangalore Bangalore
560091 Karnataka India

Winseed International Ltd.
1 Range Street Ashburton 7700
Canterbury New Zealand

Dayi International Seed
Co., Ltd.
16-35, Ssiat-Gil, Baeksan-Myeon
Gimje-Si 54324 Jeollabuk-Do
South Korea

Jenong
3, Cheomdan-Ro 7-Gil, Jeju-
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