



CABI News Bulletin Asia

ISSUE 1 | JAN - MAR 2021

IN THIS ISSUE

- Welcome
- Messages
- Products and Resources
- News and Updates
- PlantwisePlus
- Above and Beyond in the Line of Duty
- Upcoming Meetings/Events
- Explore Our Recent Publications
- Explore Our Recent Blogs
- Membership Benefits
- Acknowledgment

(f) (D) (y) (m)

www.cabi.org

Welcome

In our first CABI news bulletin for the Asia-Pacific region, CABI's Chief Executive Officer (CEO) and representatives from our Member Countries say a few introductory words of welcome.

Dear Reader,

To keep our member countries, donors, partners and other stakeholders informed about our work in the Asia-Pacific region, it is my pleasure to introduce the inaugural edition of the CABI Newsletter for the Asia-Pacific. The Newsletter serves as an opportunity to update you on a regular basis about CABI's achievements, highlighting various major projects, as well as CABI's engagement with our member countries and key partners in the region.



CABI is an international, inter-governmental, not-for-profit organization that improves people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment. CABI is a membership organisation with 50 member countries globally of which 15 are in the Asia-Pacific region. Our key strategic objectives are to: 1) improve smallholder farmers' access to sustainable value chains; 2) build capacity for delivery of climate-resilient food and nutrition security; 3) help women and young people gain new opportunities in agriculture and 4) promote the balanced use and conservation of biodiversity and ecosystems.

CABI set up its first stations in India and Pakistan in 1957. We also now have centres in Malaysia and China, and we seek to serve the whole Asia-Pacific Region. An assessment of our work shows that we have made a significant contribution to the fight against poverty over the years in this region. We work at many levels in food systems from strategic engagement with governments, regional organisations and industry, through to working directly with farmers in the field.

This edition will give you a glimpse of CABI products, our new PlantwisePlus programme, upcoming meetings and events, publications, etc. Along with this, you will also be informed about CABI's new membership benefits package.

It is our sincere hope that you will find this CABI Newsletter for the Asia-Pacific region interesting and useful, and we welcome your suggestions for improvement and contributions to future issues. For more information, please contact our regional centres and communications team through email or social media.

Thank you.

Yours Sincerely,

Dr Daniel Elger CEO, CABI

Messages

from CABI Liaison Officers/Executive Council Members

Brunei Darussalam has been working with CABI for decades particularly in enhancing and strengthening crop protection strategies that are based on Integrated Pest Management. With the availability of modern tools and technologies, currently Brunei Darussalam aims to collaborate further with CABI, extending to multidisciplinary and multifaceted components of the agricultural systems.

Ms. Siti Amaniah Haji Awang Besar

Senior Agricultural Officer, Department of Agriculture and Agrifood, Ministry of Primary Resources and Tourism and CABI Liaison Officer for Brunei

CABI has been doing excellent works in Malaysia particularly in plant pests and diseases management. Over the years, various collaborations have been successfully carried out between CABI and government agencies such as MARDI and MPOB, as well as universities and private sectors. Malaysia treasures CABI's vast experience and network and will continue to engage CABI in our effort to strengthen food security.

Mr. Mohd Faizal Bin Harun

Undersecretary of International Division, Ministry of Agriculture and Agro-based Industries and CABI Liaison Officer for Malaysia

I welcome you to CABI's quarterly News Bulletin! You'll find that it is filled with rich agricultural information, helpful data, news & events and even some on ground impacts of projects being implemented by CABI to uplift marginalized communities across Asia. Pakistan is one of the senior members of CABI and I truly acknowledged the efforts and interventions of CABI for national agricultural system since 1957. I hope that this news bulletin will be valuable for the readers.

Dr. Ghulam Muhammad Ali

Member (Plant Sciences Division), Pakistan Agricultural Research Council (PARC) and CABI Liaison Officer for Pakistan







Products and Resources

CABI ACADEMY

With more than 100 years of scientific research and application underpinning our work, CABI supports study, practice and professional development through our array of publishing products, research services and support tools to help smallholder farmers. See below for examples:

- A suite of high-quality digital teaching and learning resources
- Practical face-to-face training
- Blended change programmes comprising self-study, facilitated workshops and digital resources

For details please visit the link: https://www.cabi.org/product-training/cabi-academy/

BioProtection Portal

A free tool to enhance the awareness and uptake of biocontrol and biopesticide products by growers and advisors. Available online, with an offline version coming soon, the CABI BioProtection Portal helps growers and agricultural advisors to identify, source and correctly apply biocontrol and biopesticide products against problematic pests in their crops. The portal can be accessed on multiple devices.

For details please visit the link: https://bioprotectionportal.com

Data Sharing Toolkit

The Data Sharing Toolkit is a beta website created as part of an investment funded by the Bill & Melinda Gates Foundation and led by CABI: 'Enabling data access to support innovation in decision agriculture related to soil health, agronomy and fertilizer'. The Data Sharing Toolkit contains seven eLearning modules with supporting case studies, checklists, cheat sheets and guides. All the modules help demystify how to use, collect and share Findable, Accessible, Interoperable and Reusable (FAIR) and safeguarded data for you, and, for the people in agriculture you wish to empower.

For details please visit the link: https://www.datasharingtoolkit.org/#how-to-use

Horizon Scanning Tool

The Horizon Scanning Tool supports decision making and helps you identify, categorize and prioritize invasive species threats. There are two versions of the Horizon Scanning tool available; a premium version for subscribers to the Crop Protection Compendium (CPC) and a free version for users of the open-access Invasive Species Compendium (ISC). All users can access the filters (for pathways, habitats and taxonomic group), view the full species results list, output a CSV file of the results, and open the ISC datasheets to access further information.

For details please visit the link: https://www.cabi.org/horizonscanningtool

Plantwise Knowledge Bank

The gateway to practical plant health information. An open access gateway to actionable plant health information and services – from diagnostic and management advice to maps of pest locations and customized alerts on pest news. The Plantwise Knowledge Bank features a number of tools to help you identify pests and manage your crops.

For details please visit the link: https://www.cabi.org/publishing-products/plantwise-knowledge-bank/

KNOWLEDGE FOR LIFE

News and Updates

CENTRAL AND WEST ASIA

- Facilitated the national research system by establishing a first of its kind R4D facility "<u>Aflatoxin</u> <u>Biocontrol Laboratory</u>" in CDRI, NARC Islamabad with emphasis on biological control solutions to alleviate the issue of aflatoxins in agricultural crops.
- CABI is working with National Plant Protection Organization (NPPO) to formalize the biopesticides registration process for Pakistan to reduce the risk of hazardous pesticides.
- USDA organized Food Safety Network Webinar "AflaPak: <u>An A-Maizing New Product for Corn in</u> <u>Pakistan</u>" on January 12th 2021. The webinar was attended by more than 100 participants including high level officials.
- CABI is partnering with <u>Wageningen University</u> and <u>Research (WUR)</u> in a two-and-a-half-year project to help increase the productivity and sustainability of 960 smallholder potato growers in Punjab, Pakistan, with a special attention for the role of women. CABI and <u>WUR</u> will deliver a comprehensive training and extension programme in four core districts of Punjab – Sahiwal, Okara, Kasur and Pakpattan.
- The team recently participated in <u>Better Cotton</u> <u>Initiative's</u> virtual Annual Implementing Partners meeting. They presented advice on good agricultural practice entitled "<u>Improving climate</u> <u>change by soil health management through the</u> <u>use of compost.</u>"
- Under Improving Pakistan's Food Value Chains <u>Through Certification and Quality Assurance</u>, three processors and one exporter were trained on logistics compliance to international certification and SPS protocols and Initial online application of farmers direct marketing has bee developed. Its pilot testing and demonstration carried out.
- Under Technology based Agri & marketing project, rice seed cleaning training were given to 800 female farmers in districts Sheikhupura and Hafizabad of Punjab Pakistan.

EAST ASIA

 Assisting Grow Asia in organising ASEAN Action Plan on FAW Biocontrol Technical Workshop Series, and functioning as a panel expert at the Session 2: Rearing of parasitoids and predators for FAW Control (14 January), Session 3: Selection and release of parasitoids and predators for mass production for FAW control (28 January), and Session 5: Farmer acceptance of biocontrol approaches and scale-up issues (18 March), attended by over 500 participants in total.

- Attended the Annual Meeting of Representative Offices of International Agricultural Organisations in Beijing, organised by International Cooperation Department of Chinese Academy of Agricultural Sciences (31 March).
- Inception workshop conducted for CABI-led project - 'BioSpace: Using Earth Observation and meteorological data for long term sustainable control of crop pests' on 21-22 January, funded by the UK- China Agri-Tech Impact Development Fund / The Science and Technology Facilities Council in the UK.

SOUTH ASIA

- The three-year work plan (2021-23) between the Indian Council of Agricultural Research (ICAR) and CABI for technical cooperation signed.
- Two-day virtual regional webinar series organized for knowledge exchange on Fall armyworm (FAW) management between Bangladesh Agricultural Research Institute (BARI), Bangladesh and National Bureau of Agricultural Insect Resources (NBAIR), India.
- A partnership was established through an MoU with the Biologicals AgriSolutions Association of India for the CABI BioProtection Portal.

SOUTH EAST ASIA

- <u>Application of a Plant Doctor using artificial</u> <u>intelligence</u> launched the "<u>Al Plant Doctor</u>" at the Al Innovation Hub, Vietnam
- Project contract signed with Standards and Trade Development Facility on safer spices to increase food safety and market access for the peppercorn value chain in Vietnam, Lao PDR and Cambodia.
- Inception Workshop Analysis of Fruit and Vegetable Value Chains in Myanmar
- Virtual meeting held between CABI and International Coconut Community on potential collaboration areas <u>as per MoU signed in 2018</u>.
- Developed "Biosecurity manual for the Papua New Guinea Coconut Industry" and "A biosecurity plan for the Papua New Guinea Coconut Industry" for Kokonas Indastri Koporesen (KIK).



PlantwisePlus

(b) CABI PlantwisePlus

CABI is evolving its award-winning Plantwise programme which has supported over 54 million farmers in 34 countries to diagnose and treat pest threats on their farms and reduce crop losses by strengthening national plant health systems. The new CABI-led global programme Plantwise Plus will build upon lessons learned from Plantwise and Action on Invasives over the past 10 years.

PlantwisePlus will be built on CABI core strengths whilst innovating through collaboration with relevant partnerships and supporting countries in identifying key crops where quantity and quality can be improved to:

- (1) enhance digital advisory tools to boost climate-smart plant health practices,
- (2) increase the supply of and demand for safer, higher quality and locally produced food in domestic markets,
- (3) strengthen detection and response to pest outbreaks,
- (4) enhance availability of safer plant protection products.

We envisage that during the 10-year programme, 20 countries will join us as part of an ambition to make 50 million women and men farmers more resilient to climate change impacts and more able to access higher value domestic markets for their produce. PlantwisePlus will commence with an inception phase in 2020, followed by a 3-year proof-of-concept phase. Specific interventions will be tested in 6–7 selected countries in Africa, Asia and the Americas.





Above and Beyond in the Line of Duty



CABI is keen to acknowledge its staff who perform their tasks with a passion. We are confident that their insights and skills will greatly benefit our organization and partners. We look forward to them developing their skills and making an impact in their respective areas.



Dr. Hongmei Li Senior Scientist - SEA In the first quarter of 2021, she excelled in conducting laboratory experiments. She also took the lead preparing and compiling Annual Reports and Workplan 2020-2021 (100 pages in English and Chinese) as well as the Executive Summary Report (20 pages in English and Chinese) for 13th Steering Committee meeting of MARA-CABI Joint Laboratory for Bio-safety.



Vishnu Gautam

Sr Software Eng. - SA We appreciated the work by Vishnu on the Pest Risk Analysis Project. He was able to complete his objective in a timely and quality manner. His hard work and determination with his individual work, as well as team work, was commended by senior management.



Mohammad Nawaz Software Eng. - SA Mohammad's contribution towards the Pest Risk Analysis project was superb, completing the deliverables to a high quality in a timely fashion. His hard work and determination as a part of the team was greatly appreciated by the Project Manager



Vinay Kumar Pandey Office Attendant - SA Throughout a difficult pandemic period, Vinay gave outstanding support to the Finance Officer by assisting him from 5 October to 31 December, 2020 on audit and

annual closing.



Neeraj Sharma, Finance Officer - SA

Neeraj performed his tasks very well, assisting his senior colleagues with vital work. He also worked with external auditors and successfully completed the annual audit of the centre. He showed great commitment during a challenging period of COVID-19 to complete project accounting, office accounts and the annual closing of accounts well ahead of schedule.



Anup Kangra Office Attendant - SA Despite the challenges inflicted by COVID-19, Anup

provided excellent backing to the Finance Officer by supporting him over several days from 5 October to 31 December, 2020 on audit and annual closing.



Ayesha Qureshi Admin Asstt - CWA She has digitized all the official records of CABI (Central and West Asia) since the Rawalpindi office was established. Thanks to her tireless efforts and commitments, they can now be accessed on a digital platform.



Shah Faisal M and E Assistant - CWA Faisal excelled in online data collection and anlytics. He has provided his support to Pakistan centre procurement and other assigned work. In 2020 his work was first-rate, compiling projects' monthly reports, Sustainability Assessment reports, AOI Impact Evaluation and Plantwise activities.

Upcoming Meetings/ Events



CENTRAL AND WEST ASIA

- Pilot testing and demonstrations of harvest, drying and storage of spring maize at 08 selected villages of Okara and Pakpattan districts of Punjab, Pakistan.
- Series of 10 training sessions to strengthen the capacity of national agricultural system on concept of biological management of aflatoxins.
- Liaison with the regulatory officials from Department of Plant Protection for adoption of framework for registration of biopesticides in Pakistan.
- Training workshop for BCI projects female staff on Decent works and women empowerment in April 2021.
- Will conduct remote assessments of producer units by BCI and 3rd party for licensing of Better Cotton during July 2021.
- Availability of online SPS modules i.e., Pest Identification System and Inspections in Dari language.
- Workshops on (a) Pest Identification system and
 (b) Inspection

EAST ASIA

- 13th Joint Steering Committee Meeting of MARA-CABI Joint Laboratory for Bio-safety, 8th April 2021
- China MARA-CABI High Level Dialogue (Virtual Meeting), 8th April 2021
- 2nd International Congress of Biological Control (ICBC2), 26th – 30th April 2021 (www.IOBC-ICBC.com)

SOUTH ASIA

- Second International Congress of Biological Control, (April 26-30, 2021) to be attended by Dr Malvika Chaudhary
- Meetings with ICAR Scientists for workplan implementation to be attended by Dr Malvika Chaudhary, Dr Vinod Pandit and Dr Manju Thakur
- Webinar on on "Agriculture Research on Knowledge Discovery" rganised with EBSCO – CTRI, Acharya NG Ranga Agricultural University (ANGRAU), University of Agricultural Sciences (UAS) Bangalore and Amrita College of Agriculture

SOUTH EAST ASIA

- MARDI-CABI Joint Lab Steering Committee meeting to be held on 15th April 2021
- ACIAR Launch Fund training of trainers "Masterclass on effective scientific communication for extension workers" to be held from 6-8th April, 2021 (webinar-based).
- 2nd organizing committee meeting for "Fostering Sustainable Management of Banana Diseases in Asia" webinar organized by FFTC scheduled to be on 6th April 2021
- Mass extension campaign (MEC) on the Fall Armyworm in Myanmar in April, 2021 (using mass media)

Explore Our Recent Publications



- Ali, K., Rehman, A., Khan, K. and Weyl, P. (2020) Comparative efficacy of common broad leaf herbicides against an invasive weed: *Parthenium hysterophorus L. Agricultural Sciences*, 11(7): 617-626.
- Aslam, M.N., Ehsan-ul-Haq and Aslam, M. (2020) Rational management of Phenococcus solenopsis through conservation and augmentation of Aenasius bambawalei and Cryptolaemus montrouzieri in Pakistan. *The Journal of Animal & Plant Sciences*, 30(3):766-774.
- Atta, B., Rizwan, M., Sabir, A.M., Gogi, M.D. and Ali, K. (2020) Damage potential of Tribolium castaneum (Coleoptera: Tenebrionidae) on wheat grains stored in hermetic and non-hermetic storage bags. *International Journal of Tropical Insect Science*, 40: 27-37.
- Farooq, M., Sangita, B., Honey, S.F., Bajwa, B.E., Fazlullah and Shah, I.H. (2020) Evaluation of host susceptibility, preference and offspring performance of Zeugodacus cucurbitae (Coquillett) (Diptera: Tephritidae) on different hosts. *International Journal of Tropical Insect Science* 40:93–99.

https://doi.org/10.1007/s42690-019-00056-z.

 Fazlullah, F. Muzammil, S.F. Honey and N. Zada, 2021. Parasitism potential of Dirhinus giffardii (Silvestri) (Hymenoptera: Chalcididae) on pupae of the fruit fly species, Zeugodacus cucurbitae (Coquillett) and Bactrocera dorsalis (Hendel) (Diptera: Tephritidae), during variable exposure durations. Egyptian Journal of Biological Pest Control 31:9.

https://doi.org/10.1186/s41938-020-00354-6.

- Finch, E.A., Beale, T., Chellappan, M., Goergen, G., Gadratagi, B.G., Khan, M.A.M., Rehman, A., Rwomushana, I., Sarma, A. K., Wyckhuys, K.A.G. and Kriticos, D.J. (2020) The potential global distribution of the papaya mealybug, Paracoccus marginatus, a polyphagous pest. *Pest Management Science,* DOI 10.1002/ps.6151.
- Iqbal, I.M., Ali, K., Evans, H.C., Rehman, A., Seier, M.K., Shabbir, A. and Weyl, P. (2020) The first record of Puccinia abrupta var. partheniicola, on

Parthenium hysterophorus an invasive alien plant species in Pakistan. *Bioinvasions Records*, 9(1):1-7.

- Li, B., Li, H., Tian, Y., Abro, N.A., Nong, X., Zhang, Z. and <u>Wang, G.</u> (2021) Molecular identification and immunity functional characterization of Lmserpin1 in *Locusta migratoria manilensis*. Insects 12(2), 178. https://doi.org/10.3390/insects12020178 (open access)
- Li, Y.-H., Zhang, F., Yang, F.-X., Xiao, C., <u>Zhang.</u> <u>X.-M.</u> and <u>Chen, G.-H.</u> (2021) [Study on biological characteristics of Leptopilina japonica.] [In Chinese with English abstract.] *Journal of Environmental Entomology* 43(1), 185-192. doi:10.3969/j.issn.1674-0858.2021.01. (open access)
- Liu, Y., Cui, Z., Shi, M., Kenis, M., Dong, W., Zhang, F., Zhang, J., <u>Xiao, C.</u> and <u>Chen, L.</u> (2020) Antennal and behavioral responses of *Drosophila suzukii* to volatiles from a non-crop host, Osyris wightiana. Insects 12(2), 166;

https://doi.org/10.3390/insects12020166 (open access)

• Shah, S.H.J., Malik, A.H., Zhang, B., Bao, Yiming. And Qazi, Javaria. (2020) Metagenomic analysis of relative abundance and diversity of bacterial microbiota in Bemisia tabaci infesting cotton crop in Pakistan. *Infection, Genetics and Evolution* 84 (2020) 104381.

https://doi.org/10.1016/j.meegid.2020.104381.

- Yan, J., Pal, C., Anderson, D., Vétek, G., Farkas, P., Burne, A., Fan, Q., Zhang, J., Gunawardana, D., Balan, R., George, S. and Li, D. (2021). Genetic diversity analysis of brown marmorated stink bug, Halyomorpha halys based on mitochondrial COI and COII haplotypes. *BMC Genomic Data* 22, 7. https://doi.org/10.1186/s12863-021-00961-8 (open access)
- Zhang F, Chaudhary M (2021) 13 Uptake of biological control. In Biological Control: Global Impacts, Challenges and Future Directions of Pest Management (Ed PG Mason) CSIRO Publishing, Melbourne.

Explore Our Recent Blogs



Click on the picture to read the complete blog



Rural women in Pakistan trained on principles of Better Cotton Initiative despite COVID-19



CABI 'chips-in' to help build capacity of potato growers in Punjab, Pakistan



CABI and MARA scientists explore collaboration to find effective natural enemies for devastating Fall armyworm



Regional conference highlights joint efforts to combat fall armyworm in SAARC member countries



Shared expertise helps plans for Pakistan to produce over 5,000 tons of organic cotton by end of year



Better Cotton Initiative is empowering rural women in Pakistan through entrepreneurship



Horticulture programme in Pakistan helps increase farmer incomes by almost 20%



Scaling up biocontrol of fall armyworm: CABI scientists share expertise in ASEAN technical workshop



Aflatoxin control in Pakistan – promising developments to reduce aflatoxin problem in maize crop



CABI to take part in Feed the Future's webinar on Biocontrol of Parthenium

Membership Benefits

Operating under a UN-registered international treaty-level agreement, CABI's core areas of work are guided and influenced by our 50 Member Countries, who each have an equal role in our governance, policies and strategic direction.



Following the approval of CABI's 401st Executive Council meeting held on 4th March 2021, an updated and enhanced package of Membership benefits is available which was developed by taking account of the results of our Member Country Survey in 2020 and CABI's resources and capabilities. The revised package, representing a significant enhancement, aims to meet the diverse needs of CABI's Member Countries in more tailored and effective way.

As always CABI greatly values the partnership with its Member Countries that represents almost two thirds of the world's population. As an international science-based development and information organization owned by 50 Member Countries, CABI is uniquely placed to respond to national development and research agendas and demands. CABI can be viewed as an international extension of Member Countries' national capabilities in agriculture and the environment, helping Member Countries and others make a difference in addressing issues of global concern such as food and nutritional security and climate change.

We can help by linking member countries, donors and partners, to facilitate triangular and multilateral collaboration, regional and international development initiatives for the benefit of all our member countries.

- Membership of CABI gives national governments a leadership role in directing and influencing the global development agenda through the work of the organization and its international network of partners. Each Full
- Member Country has an equal role in the organization's governance, policies and our network partners.
- Our members set our strategic direction which means that our work in development, research and scientific publishing helps Member Countries to tackle their problems in agriculture and the environment whilst addressing global issues of concern such as food security and climate change.
- Interested countries can contribute to and benefit from what we do by joining CABI as an Associate Member Country or as a Full Member Country.

For details please visit the following link: https://www.cabi.org/about-cabi/membership/

Acknowledgment

We gratefully acknowledge our Member Countries, donors and partners, particularly national agricultural institutions for their support to CABI.

We would also like to acknowledge the CABI teams working on projects throughout Asia who contributed to this News Bulletin.

Asia

China

CABI, Beijing Representative Office Internal Post Box 85 Chinese Academy of Agriculture Sciences 12 Zhongguancun Nandajie Beijing 100081, China

T: +86 (0) 10 82105692 E: china@cabi.org

India

CABI, 2nd Floor, NASC Complex, DP Shastri Marg Opp. Todapur Village, PUSA New Dehli – 110012, India

T: +91 (0) 11 25841906 E: india@cabi.org

Malaysia

CABI, Building A19, MARDI, 43400 Serdang, Selangor, Malaysia

T: +60 (0) 3 894329321 E: cabisea@cabi.org

Pakistan

CABI, Opposite, 1-A, Data Gunj Baksh Road Satellite Town, Rawalpindi – Pakistan

T: +92 (0) 51 929 2064/ 2063/2062 E: cabi.cwa@cabi.org, cabi.rbc@cabi.org

www.cabi.org

CABI is an international intergovernmental organisation, and we gratefully acknowledge the core financial support from our member countries (and lead agencies) including:



Ministry of Agriculture and Rural Affairs, People's Republic of China Australian Government
Australian Centre for
International Agricultural Research







Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

> Swiss Agency for Development and Cooperation SDC