

BIOTROP Courier

Lawang Sewu



4 BIOTROP Staff Participate in Photography Workshop in Semarang

BIOTROP Holds Training Course on Fumigation Technique and Integrated Storage Pest Management in PT Makassar Tene, Makassar, South Sulawesi Province

New Strategy on Dissemination of SEAMEO BIOTROP Publications

Advisors:

Dr Irdika Mansur
Dr Zulhamsyah Imran
Dr Aslan

Editorial Staff:

Rima Febriana
Sri Ismawati Soerianegara (Editor)

Contributors:

Supriyanto
Santi Ambarwati
Sri Widayanti
Dewi Suryani
Rima Febriana
Asep Saepudin
Haritz Cahya Nugraha
Yunita
Puput Nisausholiha
Sri Ismawati Soerianegara

Designer:

Asep Saepudin

Address:

SEAMEO BIOTROP
(Southeast Asian Regional Centre for
Tropical Biology)
Jalan Raya Tajur Km. 6, Bogor 16134
INDONESIA
Phone: +62-251-8323 848,
Fax: +62-251-8326 851
E-mail: kmd@biotrop.org
Website: www.biotrop.org



Director's Message

Dear Valued Readers,

It gives me great joy, to share with you about the notable accomplishments that our Centre had this last quarter of 2020. This is my last message on BIOTROP Courier, since my term as SEAMEO BIOTROP Director is ending on 31 December 2020. The year of 2020 is a very challenging year with the occurrence of Covid-19 pandemic in Indonesia and all over the world. Nonetheless, we keep our spirit high to accomplish our targets and goals. Some targets could be achieved successfully, but others might need to be modified, postponed, and even cancelled.

We successfully conducted our first virtual 58th SEAMEO BIOTROP Governing Board Meeting participated by most of Governing Board (GB) Members, representatives from the Ministry of Education and Culture of the Republic of Indonesia, scientists, department managers and staff of SEAMEO BIOTROP. The 58th GBM is the stepping stone into a new era within the pandemic, and therefore, many programs of the Centre have to be changed in accordance with the strict health protocols. During the 58th GBM, the new Director and Deputy Director for Administration of SEAMEO BIOTROP were appointed for the period of 2021-2023.

SEAMEO BIOTROP has conducted online and blended activities in 2020. Our SMARTS-BE program held 17 SMARTS-BE Talk Series during our last quarter of the year 2020. The Talk Series were actively participated by teachers of agricultural vocational schools from across Indonesia. The Centre's Special Program, IndoBIC, also held the 2nd Webinar Series on Biotechnology, participated by practitioners, researchers and reporters in the field of genetically modified food. The Centre held a virtual training course on Aflatoxin Control, joined by participants from regulatory and food safety certification body, research and development staff from government institutions and private agencies, research institutions and universities, food and feed industry managers as well as associated groups from Indonesia. A two-day blended in-house training course on Risk Management based on SNI ISO 31000 was participated by department managers from SEAMEO BIOTROP and other centres of SEAMEO Indonesia. Thirty-four agricultural vocational schools in Bogor, in collaboration with the Centre, conducted a start-up activity to develop Agro-Eco-Edu-Tourism by planting potted-fruit-trees. A two-day training of proper fumigation technique and integrated storage pest management was conducted in the refined sugar storage facilities of PT Makassar Tene. To elevate the competence of SEAMEO BIOTROP staff in the photography area, four staff of the Centre participated in the Photography Workshop in Semarang held by SEAMEO Qitep in Mathematics.

With regard to our Services Laboratory, I proudly announce that the SEAMEO BIOTROP Services Laboratory enters the 5th cycle of ISO 17025 accreditation. It is proven time and again that our Services Laboratory is a very qualified laboratory. For its outstanding achievement, during the 58th SEAMEO BIOTROP GB meeting, the Board Members unanimously agreed to promote the status of Services Laboratory under Product Development and Services Department to become an independent department, and become Department of Service Laboratory.

We sealed off the year by marking a collaboration between our Centre and Polytechnic of Indonesia Venezuela (POLIVEN), which is located in the Subdistrict of Ingin Jaya, Aceh Besar District, Aceh Province. An MoU was inked through a virtual meeting on 8 December 2020. The three-year collaboration agreement focused on education development, research, and community service.

To end this message, please allow me to thank you all for your continued readership of BIOTROP Courier for the past six years under my term as SEAMEO BIOTROP Director. I hope that you have been well updated with our Centre's programs and activities through the articles we published in the Courier. I hope that you will sustain your support and interest on BIOTROP programs and activities.

Let's keep in touch.

table of contents

- 4 34 Schools in Bogor to Develop Agro-Eco- Edu-Tourism Starting with Potted Fruit Tree Plants
- 5 The Successful First Virtual 58th SEAMEO BIOTROP Governing Board Meeting
- 6 4 BIOTROP Staff Participate in Photography Workshop in Semarang
- 7 IndoBIC Holds the 2nd Webinar Series on Biotech
Visits to SEAMEO BIOTROP - Period of October to December 2020
- 8 BIOTROP and Polytechnic of Indonesia Venezuela Sign MoU through Virtual Meeting
- 9 SEAMEO BIOTROP Services Laboratory enters the 5th cycle of ISO 17025 Accreditation
SEAMEO BIOTROP Holds Online Training Course on Aflatoxin Control
- 10 Blended In-house Training on Risk Management based on SNI ISO 31000
BIOTROP Holds Training Course on Fumigation Technique and Integrated Storage Pest Management in PT Makassar Tene, Makassar, South Sulawesi Province
- 11 New Strategy on Dissemination of SEAMEO BIOTROP Publications
- 12 User Guide for SEAMEO BIOTROP's e-Publication
- 13 SEAMEO BIOTROP Holds 17 SMARTS-BE Talk Series
- 15 BIOTROPIA
- 16 BOOK REVIEW



34 Schools in Bogor to Develop Agro-Eco-Edu-Tourism Starting with Potted Fruit Tree Plants

To learn about best practices for cultivating potted fruit tree plants, especially to support agro-eco-edu-tourism in their respective institutions, 50 participants from 34 senior high schools, vocational high schools, Islamic high schools and Islamic Boarding schools participated in the training course on "Potted Fruit Tree Plants Cultivation to Support Agro-Eco-Edu-Tourism", virtually organized by SEAMEO BIOTROP, on 18 - 19 November 2020.

SEAMEO BIOTROP has had successful experiences in running the SMARTS-BE program (Sekolah Mandiri Produksi Tanaman Sayur dan Buah Edukasi/Agriculture Vocational School on Vegetables and Fruits Orchards Establishment), in which SEAMEO BIOTROP facilitated over 36 vocational high schools throughout Indonesia to revitalize fruits and vegetables orchards and to produce various fruits and vegetables derived products.

SEAMEO BIOTROP believes that it is necessary to share those experiences and expertise to the neighboring schools in Bogor, especially in supporting the Agro-Eco-Edu-Tourism program. This program will include an activity to visit active farms, agriculture land, or agribusiness operations, or even actively participate and experience the agricultural process on site.

In his opening remarks, Mr Adi Mulyanto representing Bureau of Collaboration and Public Relation (Biro Kerjasama dan Hubungan Masyarakat - BKHM), the Ministry of Education and Culture of the Republic of Indonesia stated that the nurturing process of potted fruit tree will also develop students' characters, so that they will have a better understanding about nature. He also stated that this training course is the perfect initial step in improving health and immune system, and at the same time the training course will also have positive impacts in economics.

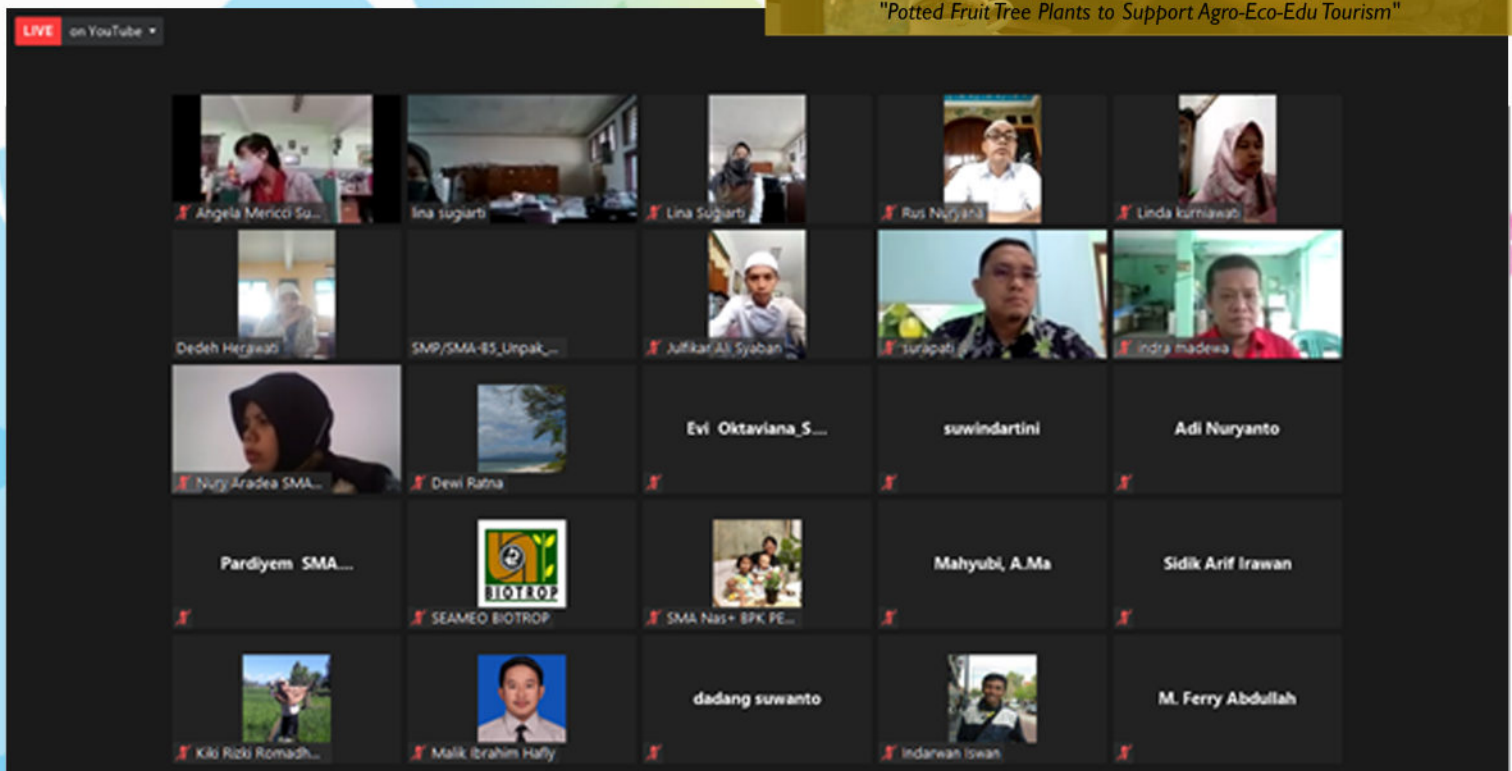
This 2-day online training course covered several topics, namely: 1. Overview of SMARTS-BE program by Dr Supriyanto; 2. Urban Farming to Support Family Food Security by Dr Irdika Mansur; 3. Agro-Eco-Edu-Tourism Planning and Design by Mr Armaiki Yusmur, MSi; and 4. Potted Fruit Tree Plants to Support Agro-Eco-Edu-Tourism by Mr Surapati, SP.

Eighteen senior high schools, 8 vocational high schools, 4 Islamic high schools, and 4 Islamic boarding schools participated in this training course.

After joining this training course, the participants are expected to implement the knowledge gained during this training course in their respective schools, as part of the schools' activities, or even as a part of teaching curriculum. Ultimately, it is expected that the students will have skills and knowledge required by industries and societies.(hcn)



Mr Surapati, SP delivers his lecture titled "Potted Fruit Tree Plants to Support Agro-Eco-Edu Tourism"



Group photo of participants who join the Training Course on "Potted Fruit Tree Plants to Support Agro-Eco-Edu Tourism"

The Successful First Virtual 58th SEAMEO BIOTROP Governing Board Meeting

SEAMEO BIOTROP Governing Board Meeting is an annual important meeting, with the aims to evaluate the Centre's programs implementation and seek for the Board's recommendations as references to conduct future activities in the next fiscal year. For the first time in 52 years, SEAMEO BIOTROP conducted its 58th Governing Board Meeting (GBM), virtually, on 6 – 7 October 2020. This mechanism was implemented due to the Covid-19 pandemic that affected the meeting protocols as well as the international travel regulations.

Ten (10) Governing Board (GB) members from Brunei Darussalam, Cambodia, Lao PDR, Indonesia, Malaysia, Myanmar, Philippines, Singapore, Timor-Leste and Vietnam; SEAMEO Secretariat Director, SEAMEO Secretariat Deputy Director for Programme and Development, and SEAMEO Secretariat Deputy Director for Administration and Communication attended the meeting virtually through ZOOM platform. Two observers from the Bureau of Cooperation and Public Relations of the Ministry of Education and Culture of the Republic of Indonesia (MoEC) were present. The Vice Rector for Collaboration and Information System of the Institut Pertanian Bogor (IPB University) also attended the meeting as observer. SEAMEO BIOTROP Board of Directors, department managers and staff also attended the meeting face-to-face at Aston Hotel, Cirebon, West Java, Indonesia.

The opening ceremony was virtually attended by HE Ambassadors of the Kingdom of Cambodia, Lao PDR, and the Republic Union of Myanmar as well as Representatives from the Malaysian Embassy; Secretary-General/Coordinator SEAMEO TROPMED Network, Director of SEAMEO CED, Director of SEAMEO TED, Acting Centre Director SEAMEO RECSAM, Director of SEAMEO CHAT, Director of SEAMEO RECFON, Director of SEAMEO SEAMOLEC, Deputy Director for Administration of SEAQIL, Director of SEAQIM, Director of SEAQIS and Deputy Director for Programme of SEAMEO CECCEP.

In his remarks during the Opening Ceremony, SEAMEO BIOTROP Director, Dr Irdika Mansur, highlighted that the 58th GBM is his last GBM, thus he thanked the MoEC, SEAMEO Secretariat, SEAMEO BIOTROP Governing Board members, SEAMEO member countries, SEAMEO Centres and Network for the opportunities, continuous support, collaborations, guidance and warm relationships. He expressed his sincere gratitude and appreciation for the presence of HE Ambassadors of the SEAMEO Member Countries, Director and Deputies Director of SEAMEO Secretariat and SEAMEO Centres, as well as guests of honor in this occasion.

Videos of the SEAMEO BIOTROP Virtual Tour and SEAMEO BIOTROP's Accomplishments for Fiscal Year 2019/2020 were also presented during his remarks. The 58th SEAMEO BIOTROP GBM was officially virtually opened by Ms Evy Mulyani, AK, MBA, PhD on behalf of the Secretary General of the Ministry of Education and Culture of the Republic of Indonesia.

The Centre submitted twelve (12) Working Papers and eight (8) Information Papers to the Board. Matters for Acknowledgment, four (4) Working Papers and one (1) Information Paper were submitted to the Board for decision by referendum, while eight (8) Working Papers and seven (7) Information Papers were discussed during the virtual GBM. The Board Member from Indonesia, Prof Dr Arif Satria and the Board Member from Lao PDR, Mr Vongvilay Vongkhamsao, were unanimously elected as the Chair and Vice Chair of the 58th SEAMEO BIOTROP Governing Board Meeting, respectively. However, due to health reason, the Chairperson requested the Vice Chair to lead the meeting.

Two important agendas which will affect the Centre's future, were discussed in the In-Camera session, namely Appointment of the Centre Director and Deputy Director for Administration. During the In-camera session the Board endorsed the nomination of Dr Zulhamsyah Imran as SEAMEO BIOTROP Director effective 1 January 2021 – 31 December 2023. During the same session, the Board also approved the nomination and appointment of Dr Ferdinan MNRE as SEAMEO BIOTROP Deputy Director for Administration effective 1 January 2021 – 31 December 2023. (rf)



SEAMEO BIOTROP Board of Directors, department managers and staff attend the 58th Governing Board Meeting



Dr Irdika Mansur (right) and Dr Zulhamsyah Imran (middle) have a discussion with an observer from the MoEC

4 BIOTROP Staff Participate in Photography Workshop in Semarang

According to marketing industry influencer Krista Neher, the human brain can process images up to 60,000 times faster than words. It has been a common knowledge that you will not get a second chance to make the first impression. You actually might get a second chance to make the first impression, but that's a post for another day. The focal point with a picture is that you can convey so much more information than you can with words. In fact, it can take a thousand words just to describe what is in one picture. Furthermore, pictures have the ability to convey abstract and complex concepts such as facial expressions. (Source: <https://www.linkedin.com/pulse/5-reasons-why-images-speak-louder-than-words-gabe-arnold#>)

Considering the power of visual, 4 BIOTROP staffs participated in Photography Workshop that was held on 24 - 28 November 2020 in Semarang, Central Java Province. The workshop was organized by SEAMEO QITEP in Mathematics at the headquarter of Center for Multimedia Development for Education and Culture (Balai Pengembangan Multimedia Pendidikan dan Kebudayaan), the Ministry of Education and Culture of the Republic of Indonesia. A total of 15 participants from 5 SEAMEO Centres in Indonesia, i.e., SEAMEO BIOTROP, SEAMEO CECCEP, SEAMEO Qitep in Science, SEAMEO SEAMOLEC and SEAMEO Qitep in Mathematics actively participated in the workshop.

In his opening remarks, Mr Toni Setiawan, ST, MPd., Director of the Center for Multimedia Development for Education and Culture explained that the workshop was aimed at elevating staff competence and skills in photography, video shooting and editing, as well as android-based mobile application. The workshop featured Mr Suwardo and Mr Daryoko, SKom as the resource persons and presented various photography knowledges, namely:

1. Basics of photography using DSLR and handphone cameras;
2. Rules of Third as guidelines to determine the proper object position;
3. The Triangle Exposure to regulate lightings;
4. Photography technique for taking photos in minimum lightings;
5. Technique for taking and editing video using the Smart Apps Creator (SAC) application; and
6. Developing android-based mobile application to be used as interactive media in disseminating news about the centres. (pn/sis/rf)



Mr Daryoko SKom delivers his lecture on the Triangle Exposure



Group photo of participants, resource persons and committees of the Workshop



A participant practices on how to take a picture using her handphone camera

IndoBIC Holds the 2nd Webinar Series on Biotech

The 2nd series of biotech webinar was concluded in 3 December 2020. The event organized by IndoBIC in collaboration with SEAMEO BIOTROP, KTNA, PBPI, and ISAAA presented four resource persons, i.e., Dr Zulhamsyah Imran, Deputy Director for Administration of SEAMEO BIOTROP, Dr Nurmalasari of PTPN XI, Prof Dr Bambang Prasetya, Chairman of Indonesia Commission of Biosafety and Prof Dr Herman, Country Coordinator of Feed the Future Biotechnology Potato Partnership (FtFBPP).

In the first session, Dr Zulhamsyah Imran highlighted BIOTROP's biotechnology research, namely Gerakan BIOTROP-BIOTEK (GB2), especially on seaweed tissue culture, pest and disease resilience, molecular biology and genetic modified study to obtain superior seeds. He also mentioned the upcoming plan on enhancing freshwater lobster research. Meanwhile, Prof Dr Bambang Prasetya, shared the Status of Biotechnology Crop and Its Regulation in Indonesia. In his presentation, he explained the current status of biotechnology crops and its regulation in Indonesia. He also shared the progress of genome editing (GE) in Indonesia and its proposed draft of regulation.

Dr Nurmalasari shared a view of drought tolerant sugarcane called NXI-4T. In 2013, the product was commercially released by the Ministry of Agriculture of the Republic of Indonesia. Furthermore, she stated that biomass productivity shows a stable performance in dry land; hence interest of farmers tend to increase. The product shows good performance on dry land. Prof Dr Herman of FtFBPP revealed the development of biotech potato in Indonesia. During his presentation he explained several results of the study, such as biotech potato seed price was not more expensive than non-biotech potato; biotech potato production was higher than the non-biotech potato, or at least on the same result; the owner of the technology should make "potato biotech demonstration plot" in his field to directly see the result; and biotech potato could reduce the fungicide application to control late blight disease.

The event was attended virtually by 120 participants from media, universities, schools, government institutions, private sectors, and public. (ds)



Visits to SEAMEO BIOTROP - Period of October to December 2020

During the period of October – December 2020, SEAMEO BIOTROP was visited by various institutions. The visits were welcomed by the Visitor Coordinator of SEAMEO BIOTROP, Ms Rizkia Tirtani. Several sites visited in the SEAMEO BIOTROP area were tissue culture laboratory, mushroom cultivation site, hydroponic, aquatic, natural products, and entomology.

The visitors were: 1) Office of Education and Culture of the Ogan Komering Ulu Regency, South Sumatra Province on 22 November 2020; 2) Vocational Education Development Center for Agriculture on 18 December 2020; 3) College of Foreign Language and College of Teacher Training and Education Science of the Invada Foundation on 28 December 2020.



BIOTROP and Polytechnic of Indonesia Venezuela Sign MoU through Virtual Meeting



Dr Irdika Mansur, Director of SEAMEO BIOTROP, and department managers attend the MoU Signing (left); Dr Irdika Mansur, signs the MoU (right)

The 8th of December 2020 marked the important day of a collaboration between SEAMEO BIOTROP and the Polytechnic of Indonesia Venezuela (POLIVEN) by the MoU signing between the two institutions. The MoU signing was conducted virtually by the Director of SEAMEO BIOTROP, Dr Irdika Mansur, and the Director of POLIVEN, Mr Reza Salima, SP, MP. The collaboration is valid for three years and aims to conduct education development, research, and community service.

POLIVEN is an academic institution founded by the Nanggroe Aceh Education Foundation or PENA Foundation, which was initiated by the Governor of Aceh in 2003. The campus is located at Jalan Bandara Iskandar Muda Km 12, Desa Cot Suruy, Kecamatan Ingin Jaya, Kabupaten Aceh Besar, Aceh Province.

The Deputy Director for Administration, Department Managers and staff of SEAMEO BIOTROP as well as the Management of POLIVEN, Aceh Local Government, Head of Region XIII Higher Education Service Institution, Chair of the Governing Board and Head of Nanggroe Aceh Educational Foundation (PENA) also joined the virtual MoU signing as witnesses.

In his remarks, Director of POLIVEN, Mr Reza Salima, SP, MP conveyed his gratitude to have collaboration with SEAMEO BIOTROP, a Southeast Asian regional institution, such as SEAMEO BIOTROP. Programs and activities of SEAMEO BIOTROP are suitable to be disseminated and implemented in to POLIVEN. He added that POLIVEN feels privileged to have the opportunity to conduct research, trainings and other learning activities in the field of tropical biology with SEAMEO BIOTROP. He convinced that the collaboration between the two institutions will result in a prosperous synergy to both parties. POLIVEN has sufficient human resources to develop appropriate applied researches in agriculture and implement the research results in various concepts of community services. On the other hand, POLIVEN also has students who are eager and have high spirit to keep moving forward and develop independently to produce innovative products. Therefore, the opportunity to have collaboration with SEAMEO BIOTROP in developing POLIVEN's students competence is highly appreciated.

Dr Irdika Mansur, the SEAMEO BIOTROP Director also delivered his remarks and informed that BIOTROP has had an active participation in elevating the competencies of four vocational schools in Aceh, namely: 1. SMK PP Negeri Bireun; 2. SMK Negeri 1 NISAM; 3. SMK PP Negeri Saree and 4. SMK PP Kutacane. He further informed that SEAMEO BIOTROP is a research and development institution under the coordination of the Southeast Asian Ministers of Education Organization (SEAMEO) and under the coordination of the Secretariat General of the Ministry of Education and Culture of the Republic of Indonesia. The scope of work of SEAMEO BIOTROP is tropical biology resources in Indonesia and the Southeast Asia region. Thus, through this collaboration, POLIVEN will have the opportunity to have collaboration with other polytechnics in the Southeast Asian countries. He also said that in the future, BIOTROP expects that POLIVEN can offer its assistance to BIOTROP in developing the capacity of vocational schools in Aceh. Dr Irdika Mansur emphasized that the collaboration will support the concept of MERDEKA BELAJAR (freedom of learning) program that was initiated by the Minister of Education and Culture of the Republic of Indonesia, Mr Nadiem Makarim. Through this program, Polytechnic Schools will be able to prepare alumni that are not only be ready to work, but also to become independent individuals, who can develop and transform local resources into economic power. He informed that BIOTROP facilitated around 300 students annually to conduct job trainings and internship activities at BIOTROP and also received around 5,000 visitors annually from various institutions. He concluded his remarks by presenting a video of virtual tour to SEAMEO BIOTROP. (rf/sis)

SEAMEO BIOTROP Services Laboratory enters the 5th cycle of ISO 17025 Accreditation

SEAMEO BIOTROP Services Laboratory, is a Testing Laboratory which implements ISO 17025 (General requirements for the competence of testing and calibration laboratories). Since its endorsement in 2000 by BIOTROP Governing Board during the 38th Governing Board Meeting in Phnom Penh, Cambodia, Services Laboratory consists of three testing laboratories namely: 1. Water and Air Quality Analysis Laboratory; 2. Soil and Plant Analysis Laboratory; and 3. Food and Feed Analysis Laboratory. These laboratories support research activities conducted by SEAMEO BIOTROP, partner institutions, and the Government of Indonesia in implementing regulations with regard to environmental quality monitoring and food safety.

Subsequent to the 2-year implementation of Laboratory Quality Management System, then in 2004 SEAMEO BIOTROP Services Laboratory gained the first formal recognition from the National Accreditation Committee (KAN) as a Testing Laboratory that complies with ISO 17025. The Accreditation Certificate is valid for 4 years. With full support from BIOTROP, the Services Laboratory continues to implement the Laboratory Quality Management System and regain formal recognition from KAN.

Due to Covid-19 pandemic, on 27 - 29 July 2020, the National Accreditation Committee carried out a remote reassessment for Services Laboratory on the ISO 17025 reaccreditation. It was a joint assessment between KAN and the Ministry of Environment and Forestry, since Services Laboratory is an Environment



Laboratory complying to PERMEN LH No.06/2009(Environmental Laboratory's Guidance). During the reassessment process, Services Laboratory proposed 152 testing parameters consisted of water and air quality parameters, soil fertility parameters and aflatoxin content on peanut and maize. The assessors for the reassessment activity were: 1. Mrs Siti Rohmah from the Ministry of Environment and Forestry; 2. Mrs Yeyen Febriyanti from the National Accreditation Committee; 3. Mr Achmad Rochliandi from Institut Teknologi Bandung; and 4. Mr Lukman from PT ITEC Solution Indonesia. The assessors fully acclaimed that Services Laboratory SEAMEO BIOTROP has conformed with all requirements to be granted the 5th Cycle of ISO 17025 Accreditation. (sa/rf/sis)

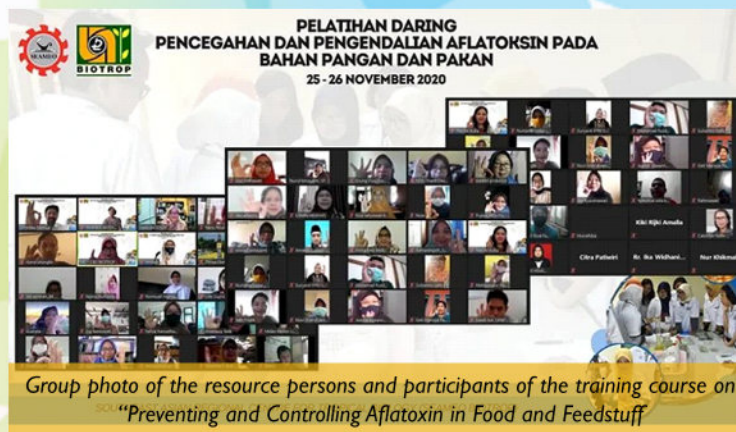
SEAMEO BIOTROP Holds Online Training Course on Aflatoxin Control

The SEAMEO Regional Centre for Tropical Biology (SEAMEO BIOTROP) has been working on the management of fungi and mycotoxins in food and feedstuff since 1984. In sharing its research experiences on this subject, BIOTROP has conducted five Regional Training Courses in 2004, 2011, 2013, 2014 and 2015 as well as five National Training Courses in 2006, 2008, 2009, 2017, and 2019. Since 2019, the interest and the need to build more capacities in the region on fungi and mycotoxins management with regard to food safety continue to grow. Due to the Covid-19 pandemic situation, SEAMEO BIOTROP held a National Training Course on "Aflatoxin Prevention and Control in Food and Feed stuff" on 25 - 26 November 2020, virtually.

The training course aimed to equip the participants with basics and applied knowledge and skills to prevent and control aflatoxin contamination in food and feedstuff with special emphasize on the proper implementation of the HACCP system. The training was also intended to establish a network of practitioners on food safety and aflatoxin control and prevention in Indonesia.

The training course was joined by 59 participants from regulatory and food safety certification body, research and development staff from government institutions and private agencies, research institutions and universities; food and feed industry managers, as well as associated groups from Indonesia.

The training course featured Prof Okky Setyawati Dharmaputra, Ms Santi Ambarwati, MSi, Ms Sri Widayanti, MSi, Ms Ina Retnowati, Ms Nijma Nurfadila and Ms Anidah, MSi as resource persons who presented the following training materials: 1. Destructive Food Fungi: Prevention and Management of Fungi in Corn and Peanuts; 2. Aflatoxin: Contamination Level and Its Regulations in Indonesia; 3. Integrated Storage Pest Management; 4. Methods for Isolating, Counting and Identifying Fungi; and 5. Fungi Identification using Molecular Biology Technique. (sa/rf/sis)



Blended In-house Training on Risk Management based on SNI ISO 31000

Since 2008, SEAMEO BIOTROP (BIOTROP) has acquired ISO 9001:2008 certification for its management system implementation. Up to present, BIOTROP has upgraded the ISO certification into ISO 9001:2015 which emphasized risk analysis in every process of activity. ISO 31000 provides a level of reassurance in terms of economic resilience, professional reputation and environmental and safety outcomes. In a world of uncertainty, ISO 31000 is tailor-made for any organizations seeking clear guidance on risk management. In adhering to the ISO 31000 on risk management in an organization, BIOTROP held a blended two-day in-house training on 23-24 November 2020 in its headquarter. ISO 31000 will be used only as guidelines for an organization in running its functions, and not for certification purpose. The training was aimed to comprehend the risk management principles, management framework, risk management process and risk assessment technique. Forty-three participants from BIOTROP, and other SEAMEO Centres Indonesia, i.e., SEAQIS, SEAQIM, SEAQIL, SEAMOLEC, RECFON and CECCEP joined this training, by means of online platform and face-to-face.

The training featured the Director of Indonesia Risk Management Professional Association (IMARPA), Mr Charles R. Vorst, MM, CERG, ERMCP, QCRO, QRGP, CCGO, CGOP, as the resource person. The topic presented in the training was Introduction to ISO 31000 on Risk Management (classroom session) and Workshop on Risk and Control Self-Assessment (practicum session). After joining the training, the participants were expected to identify risks and opportunities, as well as produce a table of risk management and opportunities related to duties and functions in the respective departments in the Centre. (yn/sis/rf).



Dr Zulhamsyah Imran, Deputy Director of SEAMEO BIOTROP delivers his opening remarks



Mr Charles R. Vorst delivers his lecture

BIOTROP Holds Training Course on Fumigation Technique and Integrated Storage Pest Management in PT Makassar Tene, Makassar, South Sulawesi Province

The Entomology Laboratory of SEAMEO BIOTROP was invited by PT Makassar Tene, a refined sugar factory, to conduct training course on Fumigation Technique and Integrated Storage Pest Management in Makassar, South Sulawesi on 12 -13 November 2020. The training course aimed to elevate the knowledge and comprehension of company's staff on managing storage pest and conducting the proper fumigation techniques. This activity was participated by 10 representatives of each production unit of PT Makassar Tene.

Ms Sri Widayanti, MSi, the Head of SEAMEO BIOTROP Entomology Laboratory and an expert in storage pest management, served as the resource person in this training course. The materials delivered during the classroom session of the training course were: 1. Introduction to Storage Pests; 2. Storage Pests Management; 3. Storage Pests Monitoring; 4. Fumigation Technique using Phosphine; and 5. Fumigation Technique using Sulfuryl Fluoride. On the first day of the training course, the participants visited the refined sugar storage of PT Makassar Tene and joined a discussion session on the conformity of the existing storage facilities and the currently implemented storage pest management. The participants appreciated the materials delivered during the training course which contained updated information and techniques on storage pest management and the proper fumigation techniques.

They expected that the similar training course will be held in the future with addition of direct practice on the proper fumigation techniques to elevate the skills of participants. (sw/sis/rf)



Participants of the training course



Ms Sri Widayanti, MSi explains the proper fumigation technique

New Strategy on Dissemination of SEAMEO BIOTROP Publications

To fulfil its mission statement “To provide scientific knowledge and build capacities of institutions and communities in conserving and managing tropical biology sustainably for the well-being of communities and the environment of Southeast Asia”, SEAMEO BIOTROP issued printed books, modules, as well as proceedings as the Centre’s publication, every year. Despite the Pandemic of Covid-19, the Knowledge Management Department (KMD) of SEAMEO BIOTROP, that is responsible for the Centre’s publications dissemination, has set a strategy to make sure that the Centre’s publications are distributed to appropriate beneficiaries. Starting from the midyear 2020, KMD enumerates all types of publications available in the Department. Based on the inventory, KMD plans strategic publications dissemination systems. The first strategic system starts by building the e-publication system where visitors of the SEAMEO BIOTROP website and social media (Facebook and Instagram) are able to directly order SEAMEO BIOTROP publications by filling out an electronic form for the selected publications through link <https://biotrop.org/publication/-books>. The shipping fee is automatically calculated based on the shipping destination. All SEAMEO BIOTROP publication materials are free for institutions and individuals.

The second strategic system was carried out by proactively donating the publication materials to several libraries in universities and high schools in Bogor, Jakarta and Bandung. Beyond expectations, the librarians, students, teachers and lecturers enthusiastically welcomed our efforts of delivering the publications directly to their respective institutions.

The list of publication orders keep adding up and KMD continues its efforts to produce and disseminate SEAMEO BIOTROP publications to educational and research institutions all over Indonesia. Temporarily, shipping to other countries is pending due to Covid-19 pandemic as some countries banned incoming packages from overseas sources. (as/sis/rf).



Ms Een Rohaeni, SAP, the Headmaster of SMA Negeri 3 Bandung receives SEAMEO BIOTROP Publications



Ms Neneng Rohayani, SSos, Librarian of Universitas Pasundan Bandung receives SEAMEO BIOTROP Publications



Mr Miyarso Dwijajie, MI.Kom, Coordinator for Publication Procurement of Universitas Pendidikan-Indonesia, Bandung (above) and Mr Indra P.H., the Officer for Student Counseling of SMK Harapan Bangsa (below) receive SEAMEO BIOTROP Publications

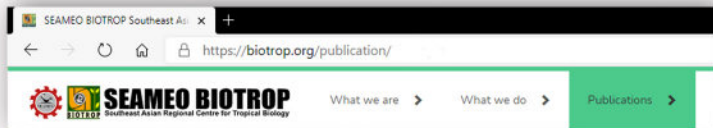


SEAMEO BIOTROP e-Publication is an application that helps its user to browse, check updates, download, and request hard copy for SEAMEO BIOTROP publications.

Through this e-publication application, SEAMEO BIOTROP aims to further improve the function of publication dissemination unit by making easier public access to get information and knowledge, especially in tropical biology through printed and online publication.

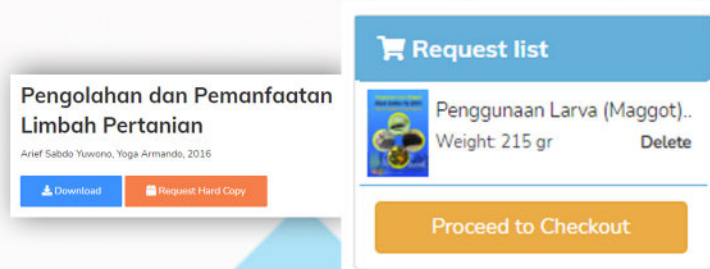
1. Accessing the Application

To access publication system, simply type <https://biotrop.org/publication/> in your browser.

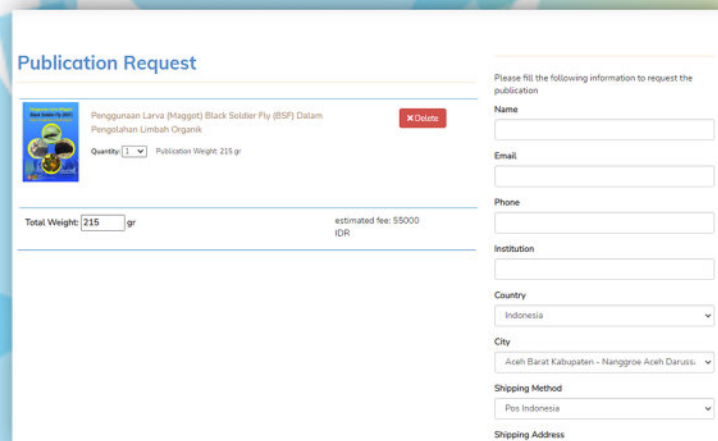


3. Requesting Hard Copy

User can request the hard copy version of SEAMEO BIOTROP's Special publication for free. The shipping fee will be charged if the books are sent through mail delivery service. User can see whether or not the book is available in printed version by clicking the request hard copy button on the book detail page.



By clicking on this button, the current book will be added to the user's request list cart. The user can then add another book by clicking the "request hard copy" button in the book detail page. After finished choosing the books, click on the "proceed to checkout" button to go to publication request checkout page.



4. Making Shipping Fees Payment

After SEAMEO BIOTROP's admin has verified your order, you will receive a notification through registered e-mail address.

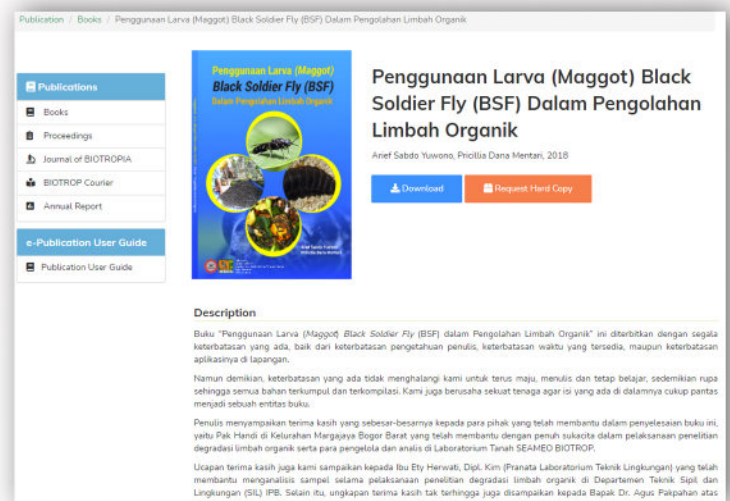
The email will confirm your publication request order, shipping address, as well as the shipping fees needed to process your publication order. If the given information is correct, please proceed to pay for the shipping fees to the aforementioned Bank Account.

When you have paid the shipping fees, please upload the receipt to the link sent to you by email.

2. Browsing through Publication Catalog

In the main menu, the user can start browse the publications collection based on its category. Currently, 5 categories are available: Books, Proceedings, Journal of BIOTROPIA, BIOTROP Courier, and Annual Report.

When the user clicks on the book cover, it will bring them to book detail page, where the user can find detailed description on the book they choose.



In the checkout page, the user can double check their publication request details, and also the quantity of each publication when they need more than 1 publication. The publications are distributed FOR FREE, however, the user should bear the shipping fee from SEAMEO BIOTROP 's headquarter in Bogor, to the destination. Make sure to fill the shipping information correctly.

SEAMEO BIOTROP Holds 17 SMARTS-BE Talk Series

A total of 17 SMARTS-BE Talk Series were organized during the period of July - November 2020, virtually. The program aimed to monitor and evaluate, facilitate and assist implementation of SMARTS-BE program at Vocational Agriculture School partners during the Covid-19 pandemic. The webinar was also aimed to develop networks among headmasters, teachers and staff with experts in various agricultural fields to increase resource sharing.

A total of 53 speakers from different areas of expertise and schools' partners were invited to share their experiences in developing agriculture techniques or products in their respective schools. Participants of this talk series came from schools, government institutions, private sectors, and agriculture practitioners. The schedules, topics, speakers, institutions of the speakers, number of participants and institutions information of the 17 SMARTS-BE Talk Series are shown in the table below.

Series	Schedule	Topic	Speaker	Institution of the Speaker	Number of	
					Participants	Institutions
1 st	21 July 2020	The Development of Science, Technology, Engineering, Mathematics, Manufacturing and Management (STEMMM) for SMARTS-BE program	Dr Supriyanto	SEAMEO BIOTROP, SMARTS-BE Coordinator	53	18
		Education-based development for Lemon var. California Cultivation	Drs Juanda, MSi	SMKN 1 Cibadak		
		Hydroponic System for Tomato Cherry Cultivation	Mr Muhammad Nuh, MSi	SMKUN 2 Banyuasin III		
2 nd	28 July 2020	Potted-culture Technique to Provide Fresh Fruits during Covid-19 Pandemic	Mr Surapati, SP	SMARTS-BE Researcher	45	17
		The Sweet One is Called Soft Candy	Mrs Eti Suyanti, MPd	SMKN 57 Jakarta		
		Fruit Trees Propagation Technique	Mr Bambang Wichayono, SPt, M.MA	SMKN 1 Tapin Selatan		
3 rd	4 August 2020	Potential Food Development in Forest Production Areas	Dr Omo Rusdiana	SMARTS-BE Researcher	91	36
		Orange Potted Plant	Mrs Eti Rohayati, SP	SMKN 2 Subang		
4 th	25 August 2020	Urban Economy Development	Mr Handian Purwawangsa, SHut, MSi	IPB University	35	14
		Building A Spirit of Entrepreneurship for the Millennial Generation through the SMARTS-BE Program in the 4.0 Era	Mr Sugiarta, SPi, MPd, MSi	SMK PPN Mataram		
		The Cultivation of Orange var. Chokun and Guava var. Kristal	Mrs Sri Esti Hariati, MMPd	SMKN 4 Bogor		
5 th	1 September 2020	Digital Marketing of Agricultural Products	Mr Sutrisno, S.Kep., Ners., MAN	Head of Business Unit of Universitas Pringsewu	82	37
		Utilization of SMARTS-BE Lemon Orchard Garden at SMK PP N Saree	Mr Muhammad Amin, SP, MP	SMK PP N Saree Aceh		
		Potted Lemon Cultivation and Agricultural Land at SMKN 1 Pacet	Dra Ida Yuniati Surtika, MM	SMKN 1 Pacet		
6 th	8 September 2020	Agro-Eco-Edu Tourisms	Dr Ricky Avenzora	IPB University	109	46
		Introduction of Perfume Tourism	Dr Supriyanto	SMARTS-BE Researcher		
		Bakpia processing using Sweet Potato	Mrs Nur Aini, SP	SMKN 1 Nisan		
		Good Agriculture Practices	Dr Abdul Munif	IPB University		

Series	Schedule	Topic	Speaker	Institution of the Speaker	Number of	
					Participants	Institutions
7 th	15 September 2020	Synchronization of SMARTS-BE Lemon Plantation Activities with The ATPH Expertise Competency Curriculum at SMKN 1 Salam	Mrs Bina Yunandari,	SMKN 1 Salam	108	57
		Lemon Cultivation at SMKN 1 Gelumbang	Ir Rina Hidayati	SMKN 1 Gelumbang		
8 th	22 September 2020	Bio-enzyme production for liquid organic fertilizer in for fruit tree maintenance	Dr Supriyanto	SMARTS-BE Researcher	123	64
		Cucumber Tree Fruits Processing into KISMIS: KISLUH MURAH DAN MAKNYUS	Ir Zaryati	SMKN 1 Kelapa		
		Lemon Tree Cultivation Technique	Mr Antonius US Kuala, SP	SMKN 1 Waibakul		
9 th	29 September 2020	Establishment of Banana var Emas Kirana and Aloe Vera Business toward Food Security in Indonesia	Mr Suheri, SP	President Director of PT Pan Agro Sejahtera	101	52
		Innovative Product of Bokashi "SEMESTA"	Ir Zamroni, MAgr	SMKN 1 Tulungagung		
		The Making of Herbal "Keripik" and "Kerupuk" as an Alternative Foods to Support Healthy Diet as a Competitive Product of SMKN 1 Kalibagor, Banyumas, Jawa Tengah	Mrs Indriyani Rokhmaningsih, SP	SMKN 1 Kalibagor		
10 th	6 October 2020	Site-species Matching for Fruit Trees	Dr Omo Rusdiana	SMARTS-BE Researcher	84	60
		Lime Cultivation in Fertisol Soil at SMKN 1 Bawen	Mr Bambang Supriyono	SMKN 1 Bawen		
		Guava var. Kristal Cultivation in Peat-swamp Area	Mrs Sitti Dasrania, SP	SMKN 5 Kendari		
11 th	13 October 2020	Spatial Marketing Analysis of Fruits and Vegetables	Mr Slamet Widodo Sugiarto, SSi	SMARTS-BE Researcher	111	52
		Jambu var. Jamaica Cultivation	Mr Sugiyantopo	SMKN 2 Metro		
		SMARTS-BE Program to Strengthen the Branding of Indonesian Agricultural Vocational Schools	Mr Abdul Muhid	SMKN 5 Jember		
12 th	20 October 2020	Soil Fertility and Site-species Matching	Dr Dwi Putro Tejo	SMARTS-BE Researcher	67	35
		Soft Candy Made of Fruits at SMKN 1 Kemang, Bogor	Mr Yanuar Affandi	SMKN 1 Kemang Bogor		
		Fruit Cracking Control in Oranges var. Chokun at SMKN 63 Jakarta	Dra Valentina Purnama Dewi, MSi	SMKN 63 Jakarta		
13 th	27 October 2020	Healthy Fruits and Vegetables Processing	Prof Fransiska Rungkat Zakaria	IPB University	92	43
		SMARTS-BE Program Fosters the Creativity of Innovative Products in SMK PP Negeri 1 Tegalampel's Students	Hj Ambasiatus Sofi, SPd	SMK PP N 1 Tegalampel		
		The Use of Chicken Manure to Increase the Productivity of Spinach Plants (<i>Amaranthus</i> sp.) at SMKN 2 Mimika	Mr Yermias Domuhu, SP	SMKN 2 Mimika		
14 th	3 November 2020	Plant Tissue Culture of Banana Cavendish	Dr Erina Sulistiani	SEAMEO BIOTROP	103	60
		Syrup Processing Made of Carica	Mrs Anna Juzanah, SP	SMKN 1 Temanggung		
		Watermelon Plant Cultivation	Mr Widodo Slamet, SP	SMKN 2 Slawi		

Series	Schedule	Topic	Speaker	Institution of the Speaker	Number of	
					Participants	Institutions
15 th	10 November 2020	The Role of Spatial Information Technology in Agriculture 4.0	Mr Harry Imantho, MSc	SMARTS-BE Researcher	86	40
		Utilization of Dry Land for Fruit Crop Cultivation	Mr I Komang Tri Juniarta W, SP	SMKN 1 Bayan		
		Lemon Cultivation	Mrs Ni Wwayan Putri Setyawathi, SP	SMKN 1 Petang		
16 th	17 November 2020	Designing Small Scale Fruit Gardens	Mr Surapati, SP	SMARTS-BE Researcher	72	39
		Potted Fruit Cultivation at SMKN 3 Pandeglang	Mr Irmansyah, SHut	SMKN 3 Pandeglang		
		Candied Tomatoes Processing	Mr Ahmad Nanang Kuncoro, MMA	SMKN 1 Gondang		
		The Development of Dragon Fruit Cultivation at SMKN 6 Masni Manokwari	Mr Paulus Valentino Patty, SPd	SMKN 6 Masni Manokwari		
		Prospects for the Development of Potted-Lemon var. California Plant in East Kalimantan	Mr Mustiadi	SMK SPP N Samarinda		
17 th	24 November 2020	Degreening Technology in Banana and Orange	Dr Supriyanto	SMARTS-BE Researcher	103	32
		Utilization of Nutmeg Waste as A Beverage Product	Mrs Desy Natalia, SPd	SMKN 1 Gedongtataan		
		Talas Beneng as Local Foodstuffs	Mrs Retno Utami Kusumaningtyas, STP, MSi	SMKN 2 Pandeglang		
		Guava var. Kristal Cultivation on Peatland	Mr Muhammad Ripqi Lubis, SP, MSi	SMKN 1 Kuala Kampar		

BIOTROPIA

BIOTROPIA, The Southeast Asian Journal of Tropical Biology, is a scientific publication of the Southeast Asian Ministers of Education Organization (SEAMEO) – Southeast Asian Regional Center for Tropical Biology (BIOTROP). It publishes articles in the broad areas of tropical ecosystems and environmental impacts, biodiversity conservation and sustainable development and biotechnology.

BIOTROPIA has been indexed by SciVerse SCOPUS (Elsevier), CrossRef, Sinta, DOAJ and Google Scholar.

BIOTROPIA Vol. 27 No. 3 December 2020 issue is now available, containing 10 research paper :

- EVALUATION OF REVEGETATION PRACTICES IN POST-MINED AREAS OF INDONESIA
by Meilina Wijayanti, Gerald Kapp, Irdika Mansur
- EFFECT OF POWDER AND LIQUID PREPARATIONS OF PROBIOTICS ON WHITE SHRIMP (*Litopenaeus vannamei*) GROWTH PERFORMANCE
by Ratu - Safitri, Yuli - Andriani, Sunendi Sunendi, Iskandar Iskandar, Ibnu Dwi Buwono
- PREVENTION METHODS AGAINST *Aeromonas hydrophila* and *Pseudomonas fluorescens* INFECTION IN TILAPIA
by Esti Handayani Hardi, Rudi Agung Nugroho, Irawan Wijaya Kusuma, Wiwin Suwinarti, Ryan Anjani, Aziza Aziza
- DIVERSITY AND ECOLOGY OF UNDERSTORY PLANT IN SEMPU ISLAND, EAST JAVA, INDONESIA
by Lia Hapsari, Ilham Kurnia Abywijaya, Siti Nurfadilah, Ridesti Rindyastuti
- HYPER-SOLUBILIZING TRICALCIUM PHOSPHATE MUTANTS OF *Klebsiella* sp. GMD08
by Nur Fitriana Ariyanti, Jaka Widada, Siti Subandiyah
- ANTIFUNGAL *Citrus hystrix* EXTRACT AS NATURAL FOOD PRESERVATIVE
by Khoirun Nisa, Ervika Rahayu Novita Herawati, Septi Nurhayati, Vita Taufika Rosyida
- GROWTH, PHOTOSYNTHESIS AND PROLINE ACCUMULATION OF METAL-ACCUMULATOR WEEDS
by Hamim, Rani Apriani, Deden Saprudin, Yohana C Sulistyanyingsih
- MONITORING of *Cacatua sulphurea abbotti* POPULATION IN MASAKAMBING ISLAND, INDONESIA
by Dudi Nandika, Yeni Aryati Mulyani, Dewi Malia Prawiradilaga, Dwi Agustina
- PHYTASE PRODUCTION BY *Enterobacter cloacae*
by Suliasih, Sri Widawati
- CHARACTERIZATION OF RHIZOBACTERIA ISOLATES FROM SOIL AND NODULES
by Sri Widawati, Suliasih, Dwi Ningsih Susilowati, Yuki Muramatsu, I Made Sudiana

Full articles are available at <https://journal.biotrop.org/index.php/biotropia/issue/view/79>



In accordance with its mission “To provide scientific knowledge and build capacities of institutions and communities in conserving and managing tropical biology sustainably for the well-being of communities and the environment of Southeast Asia”, SEAMEO BIOTROP published three books in October 2020.

1. Module on Technical Guidelines for Working in a Biotechnology Laboratory

(Dewi Rahmawati, 2020) Technology development, particularly in the field of molecular biology, increases very rapidly in recent years. The benefits of molecular biology for human welfare are enormous, among others are in the field of medicine, animal husbandry, fisheries, agriculture and industry. Given the importance of acquiring knowledge and skills on molecular biology techniques, SEAMEO BIOTROP publishes a module on Technical Guidelines for Working in a Biotechnology Laboratory. The main focus of this module is to introduce basic theories and skills required for working in a biotechnology laboratory, to be applied in daily practices in conducting research on molecular biology, especially for beginners. This module contains: 1. General rules in a biotechnology laboratory; 2. Introduction of biotechnology laboratory, including tools, equipment and their functions; 3. Chemicals used in biotechnology laboratory, in particular, reagents used in molecular biology research; 4. Technical instructions on how to use micropipettes; 5. DNA/RNA sample preparations in the field; 6. DNA isolation by using various methods, such as CTAB, SDS and DNA isolation kits; 7. RNA isolation using TRIzol method, Purelink RNA Mini Kit and Total RNA Mini Kit (Geneaid); 8. Agarose gel making, quantification and DNA quality checks; 9. Purification of DNA from agarose gel; 10. PCR preparation; 11. Real time PCR application for gene expression in plants; and 11. Introduction to bioinformatics.

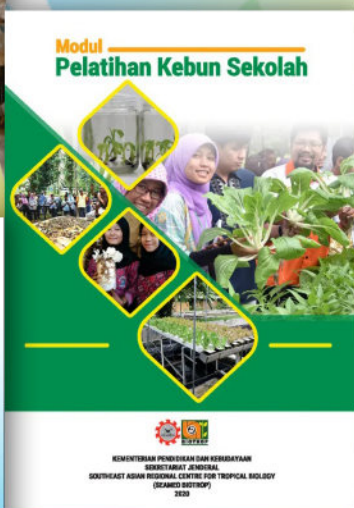


2. A Guide to Conduct Surveys on Invasive Plants

(Soekisman Tjitrosoedirdjo, Titiek Setyawati, Sri Sudarmiyati Tjitrosoedirdjo, 2020) This book is written as a guide for conducting surveys on Invasive Alien Plant Species (IAPS), in which the concept is integrated with weeds. Weeds are defined as plants having negative impacts on economics, social and/or environment. Weeds reduce food production, biodiversity, health and environment quality. Invasive alien plant species (IAPS) are differentiated into: 1. those originated from a different ecosystem, and therefore, the weeds can recognize a new ecosystem as a foreign ecosystem; and 2. those originated from the same ecosystem, but the ecosystem is in a such damaged condition, so that the weeds find the ecosystem as a foreign ecosystem. In both situations, the ecosystems are threatened by the invasions and biodiversity decrease; therefore, it is essential to conduct restoration and reintroduction of local plant species. The first priorities are to prevent invasion and to gain information and knowledge on the spreading of invasive alien plant species. This book contains survey methods for patrolling weeds existence, location and abundance, that can be used for planning surveys in the field. This book is primarily aimed at conducting early detection of IAPS existence, in order to immediately conduct eradication efforts. Our country has been an open country for a long time, which may have caused the high IAPS invasion on the country's ecosystem. This book also contains methods for vegetation analysis in order to obtain quantitative data for supporting planning on IAPS eradication, spread prevention and management efforts.

3. Training Module on School Garden

(Arief Sabdo Yuwono, Riana Hartati, Shella Marlinda, Didi Junaedi, Samsul Ahmad Yani, Sugih Mukti, Dewi Suryani, Ulfah Zul Farisa, 2020) This module is written for all parties engaging in the School Garden Training activities in order to provide detail, systematic and guided information on various school garden training materials. Various cultivation techniques have been created and practiced to support Indonesia's Food Security Program through school garden. Through this module, SEAMEO BIOTROP intends to convey detail information on various technologies to be applied in schools, in accordance with the respective schools' conditions. Training Module on School Garden contains guidelines on: 1. Composting organic solid waste; 2. Hydroponics; 3. Aquaponics; 4. Vegetative propagation of plants; and 5. Cultivation of oyster mushroom. The scope of each topic includes: 1. Introductory section; 2. General objectives; 3. Materials and tools; 4. Learning materials #1 for classroom session; 5. Learning materials #2 for practicum session; and 6. References.



The books are available in online and printed versions. It is disseminated at no charge for individual or institution interests. However, the shipping fee is charged to the receiver. Please visit: <https://biotrop.org/publication/books> for publication request. (sis/rf)