

How ASEAN Regional Diagnostic Network strengthens capacity of ASEAN in SPS standards for improved market access and competitiveness

F A C T S H E E T
N O V E M B E R 2 0 1 4

The ASEAN Economic Community envisages a single market and production base in a dynamic, efficient and competitive region, which is fully integrated into the global economy. This vision includes enhanced agricultural products control systems and procedures to ensure freer movement of safe, healthy and quality products. Specifically, proficient and accurate identification of plant pests and diseases through networked, diagnostic capacity gives credibility to national pest lists that are required by ASEAN countries to gain access to international markets, justify quarantine measures and border practices, and remove unwarranted sanitary and phytosanitary (SPS) barriers to trade. The keys to building a regional, networked diagnostic capacity are well-trained specialist diagnosticians and sharing this capability in the ASEAN region. The AANZFTA Economic Cooperation Support Program (AECSP)'s support to the broader **ASEAN Regional Diagnostics Network (ARDN)** project delivers a series of specialist diagnostic training activities and develops diagnostic tools and facilities to ASEAN Member States and provides opportunities for emerging ASEAN diagnosticians to engage with specialists on projects of mutual interest.

Supporting emerging ASEAN diagnosticians

The ASEAN Regional Diagnostic Network provides training for all ASEAN Member States on important plant pests and diseases and delivers at least one person capable of preparing and identifying specimens, and recognising which specimens should be referred to specialists for scrutiny. The project is delivered through a series of workshops, mentoring visits and specialist training activities covering a wide range of pests (e.g. scale insects and mealybugs, plant nematode worms, plant viruses and mites). Participants are assessed before and after workshop training to determine the application of skills and knowledge. Mentoring activities involve specialist trainers visiting a small number of ASEAN countries to deliver training and field surveys. Training of specialist diagnosticians is delivered through short-term laboratory attachments, short-term projects or surveys. Equipment associated with training activities and remote microscopy units are also provided.

Benefits of the project:

- Pest surveys revealing new plant virus records in Myanmar.
- Development of diagnostic keys for the ASEAN region (e.g. high-level key to pest nematodes).
- More risk-based assessment of quarantine detections of nematodes, including reference of interceptions by Indonesia, Malaysia, Brunei Darussalam and Singapore to specialists for identification.
- Enhanced proficiency in using molecular diagnostic techniques to diagnose phytoplasmas and viroids that threaten palm-based industries in the ASEAN region.
- Validation of a diagnostic protocol for bacterial wilt of corn to be submitted to the Asia-Pacific Plant Protection Commission as a regional standard.
- Collaboration between Australian nematode diagnosticians to develop regional resources and expertise in the Thai Department of Agriculture and Royal University of Cambodia.



Participants in an ARDN workshop on the diagnostics of scale insects in Kuala Lumpur, Malaysia in August 2013

- Recognition that a major pest currently in culture for research purposes in an ASEAN National Plant Protection Organization (NPPO) has been misidentified.
- Initiation of collaborative projects (involving the CSIRO, Murdoch University and the Plant Biosecurity Cooperative Research Centre in Australia and the Department of Agriculture and Kasetsart University in Thailand) on the movement of nematodes via trade networks in the ASEAN-Australian region and an inexpensive, ultrasonic extraction technique to assist surveying for nematodes.
- Expansion of remote microscopy technologies and support programs in the ASEAN region.
- Sharing experiences of plant pests among Australian and ASEAN diagnosticians.



Using remote microscopy to identify plant diseases during an ARDN training in Bangkok, Thailand in April – May 2013

Ensuring training sustainability

A critical mass of networked diagnosticians will be required for the long-term sustainability of the project.

The project is contributing to the development of the diagnostic network through its regional nature and its contribution to the development of cross-regional skills and contacts. An informal, active, email discussion group formed after a workshop on the diagnostics of scale insects and continuing as a vehicle for sharing knowledge is an example of how this is being achieved. Also, several alumni of this scale insect workshop are now undertaking postgraduate studies in diagnostics, which augurs well for the continuing development of their skills.

Remote microscopy is now well established in Thailand and its future lies in organisations embedding it in their operational activities. Malaysia is committed to this, as is Viet Nam and the Philippines.

Sustainability of project outcomes in mites looks assured, with the emergence of strong centres of expertise in Thailand and Malaysia.

Long-term sustainability of the outcomes of nematode training are also assured. There are strong centres of expertise in Thailand and Cambodia, which are networked with each other and with Australia, and there is a succession plan to deal with staff retirements.



Specialist diagnosticians from Australia (left), Thailand (centre) and Singapore (right) discussing the identification of pest nematodes at an ARDN workshop in Bangkok, Thailand in March 2013

It is significant for sustainability that senior managers in ASEAN plant protection agencies are keenly aware of the benefits of the project for trade, biosecurity and general crop protection, and understand how diagnostic capacity links closely with other major, national and regional commitments, such as commitments to pest surveillance and reporting.

For more information, visit:

<http://www.ardn.info/Details.asp?Section=ARDN&Sub=ExecSummary>