Introductory oil palm IPM discovery learning manual

Project Objective

Preparation of an introductory oil palm manual with pest datasheets and producer participatory exercises

Brief Project Description

The strong global demand for oils and fats has caused a rapid growth of the oil palm industry in the ASEAN region, leading to the conversion of large areas of land to oil palm production. Malaysia and Indonesia produce over 83% of the total world output of palm oil. Production in Indonesia has now reached 3 million ha of which 33% is smallholder production and 19% government owned estates; the remainder being privately owned companies. In Malaysia, around 3.7 million ha are planted (51% of which is smallholder or government owned) and which produce 11.9 million tonnes of palm oil per annum. Palm oil and palm oil products are key exports for these countries, with 14.7 million tonnes exported annually ($4500 million) from Malaysia.

The “Global Initiative for Sustainable Palm Oil Production” is starting to develop unifying principles of sustainability and specific criteria against which systems can be adjudged sustainable. An important part of any sustainable production system is the use of Integrated Pest Management. However, at the moment there is no one definitive set of IPM guidelines. Effective management methods are known for some pests and diseases, but generally not effectively applied by smallholders. Further, there is a demand for newer and more sustainable measures, which reduce dependence on chemical pesticides, open burning etc. A better understanding of symptoms and pest ecology is required to achieve better pest management. Also, awareness of key pests needs to be raised within the global palm oil industry, particularly in connection with quarantine issues and the potential movement of pests from one oil palm growing region to another.

1 Pest refers to any damage causing organism
Comprehensive ecological guides and discovery learning exercise manuals are in high demand. Examples of such products that CAB International have disseminated over the past years include the vegetable IPM exercise book (Vos, 1998), various biocontrol bulletins (2000-2001), a cabbage discovery learning manual (2002), an introductory coffee manual (Kimani et al., 2002) and a cocoa discovery learning manual (2003). These manuals mostly consist of validated discovery learning exercises and pest data sheets derived from scientific databases or practical field case studies. The manuals produced thus far have in common that they are written for a broad audience and the demand experienced for such manuals shows how hard it is for field-based IPM practitioners to get access to high quality content.

It is proposed that along the lines of the cocoa manual, an oil palm manual is prepared with pest datasheets and producer participatory exercises. The pest datasheets will be abstracted mainly from the CABI scientific database Crop Protection Compendium, research papers and published handbooks, information from individual plantation companies and key experts. The producer participatory exercises will have been validated for other crops / situations, but are likely to be applicable to oil palm.

References


**Project Activities**

- Liaison with project partners re nature and content of manual
- Identification of key experts to verify content
- Defining manual contents, to include key pests, quality images and producer training exercises
- Sourcing information from multiple data sources, personal experiences and existing manuals
- Compilation of datasheets and exercises into an illustrated manual
- Low-cost printing of manuals in English (if sufficient funds can be found manual will be translated into other languages)
- Promotion of manual at appropriate international events

**Expected Outcomes and Impacts of the Proposed Project:**

- Illustrated oil palm IPM discovery learning manual
- Awareness raised of key pests in the global oil palm industry
- The manual will be a tangible output to further sustainability in oil palm production
- The manual is expected to be an important resource for future oil palm smallholder training programmes worldwide

Beneficiaries: Oil palm producers- plantations and smallholders, extension and other field staff, quarantine personnel, research staff.
Expected Duration of the Project:

12 months

Months 1-2: Conceptualise and develop outline of manual
Months 3-8: Assembling manual contents
Month 8: Draft datasheets sent to experts for verification
Month 10: Proof reading and Printing
Month 12: Printed manual ready for distribution

Potential Partners:
Malaysian Palm Oil Promotion Council, Malaysia
Malaysian Palm Oil Board, Malaysia
FELDA
Directorate General of Estate Crop Production, MOA, Indonesia
IOPRI, Indonesia
Cenipalma, Colombia
ASD, Costa Rica
PNG OPRA, Papua New Guinea
CIRAD, France

Budget:
Outline budget US$55,000 to include compilation of data sheets, production of exercises, validation by experts, printing and production costs plus distribution costs.

As a sign of commitment to this project CAB International is contributing US$15,000 to "kick start" the project. However, to ensure the success of the project, a commitment from sponsors to fund the balance of US$40,000 is sought.
Brief Profile of the Proposer and Contact Details

**CAB International** is a global non-profit organisation generating, validating and delivering knowledge solutions in the applied life sciences through information products and services and by utilising its expertise in biodiversity for the benefit of agriculture, industry and the environment.

CABI’s integrated teams of systematists, microbiologists, ecologists, pathologists, nematologists and biocontrol specialists operate from a network of centres in Asia, Africa, Europe and the Caribbean, supported by unique reference collections of organisms and literature. Services include: authoritative identification and characterization of crop pests, pathogens and parasitic nematodes; diagnosis and management of crop health problems (integrated pest management; biological control of insect pests and weeds in agriculture, forestry and natural ecosystems; development of biopesticides); management/use of biodegradation and biodeterioration; *in situ* and *ex situ* conservation of biodiversity; control of alien invasive pests; impact assessment of land-use and climate change; training, consultancy and advice in all these areas.

**Ganoderma Expert: Dr J. Flood**

Pathologist with 25 years experience. Extensive knowledge of oil palm, especially pest management issues. Recent research has centred around Ganoderma. Also has expertise in producing “farmer friendly” publications.

**Technology Transfer Expert: Dr J. Vos**

Plant pathologist with over 20 years experience in IPM and farmer training. Has produced many “farmer friendly” publications, including a cabbage IPM manual and a cocoa IPM manual.

**Biodiversity/Ecology Expert: Dr Elizabeth J. Asteraki**

Entomologist with 18 years experience. Trained in crop protection of tropical crops, ecology and biodiversity assessment. Recent research has included assessment of management practices for enhanced biodiversity, development of management plans for environmental sustainability.

For further information please contact Dr Elizabeth Asteraki or Dr Loke Wai Hong on the details below, or directly on l.asteraki@cabi.org or loke@cabi.org