PPI/PPIC Nutrient Management Services for Oil Palm

By T.H. Fairhurst, Armin Gfroerer-Kerstan and Ian Rankine

The Institute works closely with oil palm growers and scientists around the world. Responding to growing demands for sound information, it has developed three services to assist growers to improve field agronomy, productivity, and staff development.

Information Services

There is a large and growing demand for science-based nutrient management information in a form useful to the fertilizer industry, planters, agricultural and environmental leaders, scientists, and policy makers. The Institute has set a goal to become the source of choice for nutrient management information. To this end, the PPI/PPIC East and Southeast Asia Programs office has established searchable databases containing over 1,000 scientific papers, books, and other articles about oil palm and more than 800 slides illustrating oil palm field agronomy from seed preparation to fresh fruit bunch (FFB) processing. In particular, the program maintains a comprehensive literature collection on issues relating to phosphorus (P) and potassium (K) use in oil palm. It is now able to provide growers and scientists with sources of information, as well as illustrations for use in company staff training programs and preparing company brochures and publications.

Figure 1. The PPI/PPIC Southeast Asia Programs literature database includes a large collection on P and K use in oil palm.

This service will be extended with the preparation of a CD-ROM containing a searchable database of oil palm references and photographs depicting all aspects of oil palm crop production.

Oil Palm Monitoring Program (OMP7)

All plantations accumulate large amounts of valuable data on yield, fertilizer use, leaf analysis, pest and disease incidence, tree census, etc. Unfortunately, this information is usually stored in a rather haphazard way, such that the routine analysis of trends is impossible.

How many plantations can answer the following questions using quantitative data analysis?

- *Which planting material in the estate is most susceptible to crown disease?*

- *What were the changes to soil chemical fertility over the past 10 years?*
- *What were the long-term changes in leaf nutrient levels?*
- *Are plantation soils being mined of nutrients?*
- *Does the installation of soil conservation techniques result in increased productivity?*

The implementation of a customised database system in each estate can significantly contribute to the estate's ability to answer these questions for itself, based on an analysis of its own data. Armed with such information, the estate will then be better able to exploit the services provided by visiting consultants and demand answers to important questions made evident from a full analysis of agronomic data. In collaboration with Agrisoft Systems, the PPI/PPIC staff have developed customised agronomy database software to store, process and analyse all agronomic aspects of the oil palm production process.

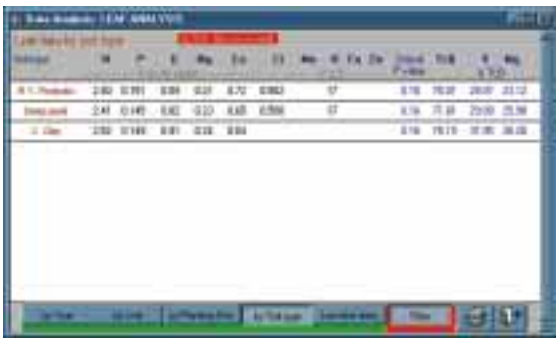

Figure 2. The OMP7 is programmed to provide the user with summarised information. Here, mean leaf levels are presented for each soil type for all blocks in production.

Handbooks in Cooperation with 4T Consultants

A series of oil palm booklets has been developed from the ground up, with practical input from recognized managers and supervisors in the industry. The series is made up of three modules: Nursery, Immature, and Mature. Each module consists of a field handbook and a pocket guide. The field handbooks are more detailed and provide the information required by estate managers. The pocket guides are summaries of the field handbooks and provide a field reference for line managers, supervisors, and team leaders. The pocket guides contain essential "need-to-know" information and are specifically designed for use in the field.

High yields depend on management which requires a team of trained workers, supervisors, and managers.

These guides detail each key task in a separate section, and each section is described as follows:

Objective O A statement of the final outcome(s) of the job. Managers understand why a job is being done.

Standard S Explains the required outcome of the task or action. Managers understand the quality of work that is required.

Equipment E Lists the equipment required to complete the task. A checklist of what equipment is required.

Materials M Lists the consumables and materials necessary for the job. A checklist of what materials are required.

Procedures Details the actions to be taken in order to com-

In all plantations, in-field training is required to introduce and standardise production technology.

plete the task to the required standard. Outlines how the task is to be done.

Frequency How often a task is to be repeated. Outlines how often the task is to be done.

Timing What time of the year the task is to be completed. Indicates when the task is to be completed.

Task Provides a productivity 'benchmark' for work output. Allows a quantitative measurement of resources and productivity.

Records States the records that must be kept for the activity. Ensures that consistent records are maintained.

Notes Allows users to make notes on each section.

The booklets contain essential information in an easy to read format. Photographs, diagrams and examples support the text where applicable. The language used is clear and to the point, so that managers do not waste time trying to understand the point being made. The layout of each field guide is consistent so managers can locate essential information quickly. The books are printed on water resistant, thick paper to withstand daily field use. They set standards and describe procedures that are consistent with best management practices and form part of PPI/PPIC's range of training and reference materials. **BCI**

High yields are produced from well selected and carefully planted seedlings.

Dr. Fairhurst is Deputy Director, PPI/PPIC East and Southeast Asia Programs, Singapore. Mr. Gfroerer-Kerstan is Computer Consultant, Agrisoft Systems, Jl Prisma 66A, Pojok, Condong Catur, Yogyakarta, 55283 Indonesia; phone/fax +62 274 882 606; e-mail: armingk@indo.net.id. Mr. Rankine is Director, 4T Consultants Pty Ltd, P.O. Box 1946, Emerald, Queensland 4720 Australia; phone/fax + 61 7 498 24282; e-mail: fourt@tpgi.com.au.

Order Form

Item #	Title	Quantity	Unit Price		Discount	Total Price
			US$	S$	%	S$
	Field Handbooks:					
OP 98 1	Nursery		25.00	40.00		
OP 99 2	Immature		25.00	40.00		
OP 98 3	Mature		25.00	40.00		
	Pocket Guides:					
OP 99 4	Nursery		10.00	16.00		
OP 99 5	Immature		10.00	16.00		
OP 99 6	Mature		10.00	16.00		
	Field Booklets:					
OP 97 7	Deficiency & Disorders		5.00	8.00		
OP Full set	3 FHB, 3 PG, 1 FB		105.00	170.00		
50-7000	Int'l Soil Fertility Manual		20.00	32.00		
			Total Price:			
			Add: Postage (airparcel) and Handling Fee:			
			Grand Total:			

Discounts	
Quantity Ordered	Discount Percentage
10-20	5%
21-50	10%
More than 50	20%

Bank draft in Singapore dollars should be made payable to "Potash & Phosphate Institute."

Name:	
Position:	Department:
Company:	
Address:	
City / Post Code:	Province:
Country:	Telephone:
Facsimile:	E-mail:
Date:	Signature:

Please fax completed order form to Singapore office. We will fax you a Proforma Invoice (inclusive of postage) to enable you to send payment. Publication(s) will be dispatched after receipt of payment.

Potash & Phosphate Institute
Potash & Phosphate Institute of Canada
East & Southeast Asia Programs
Representative Office of Potash & Phosphate Institute
126 Watten Estate Road, Singapore 287599, Tel: +65 4681143, Fax: +65 4670416
E-mail: emutert@ppi-ppic.org, tfairhurst@ppi-ppic.org and dtan@ppi-ppic.org