

11. PORIM Bulletin - ISSN 0127 - 0249

No. 1 #

November 1980. 24 pages. RM 21.00 / USD 11.00

Contents:

- PORIM in Brief
- Chemical Changes Causing Deterioration of Palm Oil Quality
- Recycling Waste Materials in Oil Palm Plantations – Mulching in Oil Palm
- A Note on the Seasonal and Related Variabilities of the Palm Oil Production in West Malaysia
- Palm Oil Abstracts
- PORIM News

No. 2 #

May 1981. 43 pages. RM 21.00 / USD 11.00

Contents:

- Biology Division of PORIM – the Oil Palm Research Programme
- Correlation between Vegetative Characters in the Nigerian Oil Palm Population
- Physical Properties of Palm Oil in Relation to Food Use
- Commercial Importance of Palm Oil and Current Problems
- Some Aspects of the Market Development of Palm Oil in the Middle East
- Selected Abstracts
- PORIM News

No. 3 #

November 1981. 52 pages. RM 21.00 / USD 11.00

Contents:

- Chemistry and Technology Division of PORIM - Current Research Programme
- The Determination of Oil Palm Fertilizer Requirements in Peninsular Malaysia
- Effects of Composition of Oil Palm Properties
- Round Robin Test on Free Fatty Acid (FFA) Determination of Refined Palm Oil
- Analytical Quality Control in Palm Oil Mill Effluent Laboratory
- A Look at the Future World Market for Palm Oil Mid-fraction for Use as Component of Cocoa Butter Equivalent Fat
- Selected Abstracts
- PORIM News

No. 4 #

May 1982. 72 pages. RM 21.00 / USD 11.00

Contents:

- Critical Aspects of Slip Melting Point Measurement
- Some Aspects of Trace Metals Palm Oil
- Athesis and Fruit Set in *Elaeis oleifera* (HBK) Cortes
- Anaerobic Digestion of Oil Palm Fertilizer Requirement in Peninsular Malaysia
- Refined Palm Oil Quality as Received
- Palm Oil Familiarization Programme – a TAS Approach
- Selected Abstracts
- PORIM News

No. 5 #

November 1982. 80 pages. RM 21.00 / USD 11.00

Contents:

- Development of Peat Soil for Oil Palm Planting in Malaysia – Johor Barat Agriculture Project as a Case Study
- Mitosis in *Elaeis guineensis* Jacq. Race Deli *Dura*
- Bleachability and DOBI
- Protection of Oils and Fats against Oxidative Deterioration with Special Reference to Palm Oil
- Biosynthesis of Fatty Acids in Higher Plants
- The Need to Increase Fat Consumption in Developing Countries
- Techno-economic Suitability of Palm Oil for Food Product in the UK Market
- Palm Oil Products Quality and Users Needs
- Selected Abstracts
- PORIM News

No. 6 #

November 1983. 55 pages. RM 21.00 / USD 11.00

Contents:

- Collection of Oil Palm (*Elaeis oleifera*) Genetic Material in Central and South America
- An Estimation of Rainfall Retention by Oil Palm Canopies
- Biotechnology: an Overview
- PORIM's Pilot Plant Facilities
- Palm Oil Usage and Potential in Japan
- Selected Abstracts
- PORIM News

No. 7 #

November 1983. 33 pages. RM 21.00 / USD 11.00

Contents:

- Pattern of Variation of Fruit Set and Fruit Components in *Elaeis oleifera* (HBK), Cortes Bunches
- Analysis of Fatty Acid Composition (FAC) in Hybrids and its Implication in Breeding
- Commercial Aspects of Palm Stearin Utilization
- Selected Abstracts
- PORIM News

No. 8 #

May 1984. 25 pages. RM 21.00 / USD 11.00

Contents:

- The Available Water Holding Capacity of Oil Environment Physiology of Oil Palm
- Measurement of Intercepted Radiation
- Technology for Incorporating Palm Oil in Vanaspati
- Selected Abstracts
- PORIM News

No. 9 #

November 1984. 46 pages. RM 21.00 / USD 11.00

Contents:

- Techniques in Environmental Physiology of Oil Palm
- Partitioning of Rainfall Above Ground
- Polynological Studies in the Genus *Elaeis* under the Scanning Electron Microscope
- Reduction of Palm Oil Heavy Metal Content in Fuel for Diesel Engines
- Steam Accumulators or Thermal Storage
- A Partial Bibliography of Graduate Theses on Oil Palm/Palm Oil
- Selected Abstracts
- PORIM News

No. 10

May 1985. 34 pages. RM 21.00 / USD 11.00

Contents:

- Volatilization Losses of Nitrogen from Urea Applied to Malaysian Soils
- The Effects of Palm Oil Mill Effluents on the Charge Characteristics of Two Weathered Soil in Peninsular Malaysia
- Review of Sampling Devices Approved by International/National Standards Organization
- Stochastic Model for Malaysian Palm Oil Production
- Selected Abstracts
- PORIM News

No. 11 #

November 1985. 37 pages. RM 21.00 / USD 11.00

Contents:

- Techniques in Environmental Physiology of Oil Palm
- Synthetic Zeolites and its Potential Applications in Fuel Production in Oil Palm Industry
- Nutritional Value of β Carotene
- Thermal Analysis of Palm Oil and Other Oils
- Selected Abstracts
- PORIM News

No. 12 #

May 1986. 45 pages. RM 21.00 / USD 11.00

Contents:

- The Effects of Different Methods of Placement and Frequency of Application of Fertilizer to Oil Palm on an Inland Soil in Peninsular Malaysia
- A Physiological Analysis for Oil Palm Trials
- A Brief Note on Vitamin E Project at PORIM
- Biochemistry of the Germinated Oil Palm Seedling
- PORIM News

No. 13 #

November 1986. 26 pages. RM 21.00 / USD 11.00

Contents:

- Volatilization Losses of Nitrogen from Urea Applied to Malaysian Soils
- Effects of Granular Size and Soil Properties
- Note on a Convenient Method of Access to Young Oil Palm Inflorescences
- Applications of Protoplasts Technology
- Selected Abstracts
- PORIM News

No. 14 #

May 1987. 23 pages. RM 21.00 / USD 11.00

Contents:

- Research Note on Oil Palm Protoplast Culture
- Study on the Utilization of Palm Based Products in Candle Making
- Potential Biomass Energy from Palm Oil Industry
- Bibliography of Theses on Oil Palm/Palm Oil and Related Disciplines
- PORIM News

No. 15 #

November 1987. 36 pages. RM 21.00 / USD 11.00

Contents:

- Collection of Oil Palm (*Elaeis guineensis*) Genetic Material in Tanzania and Madagascar
- Preliminary Material in Tanzania and Madagascar
- Preliminary Study on the Treatment of Palm Oil Refinery Effluent Using a Horizontal Baffled Filter
- Crystallization of Processed Palm Oil Upon Storage
- Ultraviolet-visible Light Spectroscopy-visible Light Spectroscopy-instrument Parameters, Scope of Applications of Vegetable Oils
- Patents of Oil Palm/Palm Oil
- Book Review
- PORIM News

No. 16 #

May 1988. 46 pages. RM 21.00 / USD 11.00

Contents:

- Variation in Fertilizer Requirement of Oil Palm in Peninsular Malaysia Within the Same Soil Series
- Estimating Surface Combustion Temperature and Heat Losses in Boiler Fuels
- Training in Sensory Evaluation
- Determination of Solvents Residue in Oils
- PORIM News

No. 17

November 1988. 44 pages. RM 21.00 / USD 11.00

Contents:

- Oil Palm Yield Responses to P Fertilizer in Peninsular Malaysia
- Decanter Evaluation Trials in Brooklands Palm Oil Mill
- Biochemistry and Biotechnology in R & D of Palm Oil
- Bibliography of Research Reports on Palm Oil/Oil Palm
- PORIM News

No. 18

May 1989. 68 pages. RM 21.00 / USD 11.00

Contents:

- Inflorescence Abortion and Sex Determination in Oil Palm
- Laboratory and Field Evaluation on the Attractancy of *Elaeidobius kameruncis* Faust to 4-Allylanisole
- Harvesting and Mechanized In-field Collection of FFB
- The Distribution of Benefit from Palm Oil Research
- Bibliography of Research Reports on Palm Oil/Oil Palm: Part 2
- PORIM News

No. 19

November 1989. 30 pages. RM 21.00 / USD 11.00

Contents:

- Development of Harvesting Machines for Oil Palm
- Nut Cracking Using Ripple Mill
- Authenticity of Palm Kernel Oil by Fatty Acid and Triglyceride Compositions
- PORIM News

No. 20

May 1990. 39 pages. RM 21.00 / USD 11.00

Contents:

- Currents Technological Development and Trends in the Palm Oil Industry
- Super Oleins from Palm Oil Fraction
- Full Scale Sequencing Batch Reactor Treatment of Palm Oil Refinery Wastewater
- Enzymic Extraction of Palm Oil
- PORIM News

No. 21

November 1990. 45 pages. RM 21.00 / USD 11.00

Contents:

- Designs and Evaluation of a Crane Fitted to a Mini-tractor for Mechanical Loading of Oil Palm Fresh Fruits Bunches (FFB)
- Application of GLC in the Analysis of Oils and Fats
- Customs Classification of Palm Fatty Acids
- Morphological Changes of the Cellular Components of the Developing Palm Fruit (*Tenera: Elaeis guineensis*)
- PORIM News

No. 22

May 1991. 36 pages. RM 21.00 / USD 11.00

Contents:

- Adaptation to Light Environment by Leaves of Oil Palm (*Elaeis guineensis*)
- Relative Quantification of Palm Oil Partial Glycerides by Chromarod Thin-layer-chromatography with Flame-ionization
- Treatment of High Strength Waste Water from Palm Oil Based Oleochemical Industries – Preliminary Observation
- Crude Palm Oil Quality – a survey Over the Last Two Decades
- PORIM News

No. 23 #

November 1991. 52 pages. RM 21.00 / USD 11.00

Contents:

- Some Results of Recents Forecast on Palm Oil Production
- Status of Mycorrhizal Research on Oil Palm
- Palm Kernel and Palm Kernel Oil Quality Today
- Oxidation and Palm Oil
- Noise Pollution and its Control in the Palm Oil Industry
- PORIM News

No. 24 #

May 1992. 60 pages. RM 21.00 / USD 11.00

Contents:

- The Current Satus of Automation of the Sterilization Process in Malaysian Palm Oil Mills
- An Assessment of the Iron and Free Acid Content of Production Oil from Various Palm Oil Mills
- Application of Market Share Analysis in Determining World Market Potential for Palm Oil
- Enforcement with Respect to Oil Quality in East Malaysia
- Oxidative Index for Crude Palm Oil
- PORIM News

No. 25

November 1992. 60 pages. RM 21.00 / USD 11.00

Contents:

- Recent Palm Oil Production in Malaysia, with Special Reference to the Oil Extraction Rate
- Improving CPO DOBI Values – a Practical Approach
- Survey of Crude Palm Oil Quality Ex-mill Sabah
- Quality of East Malaysia Crude Palm – Pan-Century Edible Oil's Experience
- Quality of Malaysian Palm Kernel Cake
- PORIM News

No. 26

May 1993. 42 pages. RM 21.00 / USD 11.00

Contents:

- Carbon Pellets Prepared from Fibres of Oil Empty Fruit Bunches: I. A. Qualitative X-ray 4 Diffraction Analysis
- Potential Applications of Supercritical Fluid Extraction Technology in the Oil and Fats Industry
- Vital Control of Oil Palm Insect Pests
- An Econometric Model Simulating the Malaysian Palm Oil Market
- PORIM News

No. 27

November 1993. 47 pages. RM 21.00 / USD 11.00

Contents:

- Industrial Moulding of Oil Palm Particle I. Suitability of Oil Palm Trunk and Frond for Moulded Table-tops
- Effect of Sulphate Fertilizer Applications on Leaf Sulphur Status of Oil Palm
- Some Variables Affecting the Performance of Oil Palm Mills
- Potential Source of Sterols from a Palm Kernel Oil Methyl Ester Residue of an Oleochemical Plant
- Expected Palm Oil Production in Malaysia, 1994 with a View to Production Cycle and the Effect of Oil Extraction Rate on Production
- PORIM News

No. 28

May 1994. 49 pages. RM 21.00 / USD 11.00

Contents:

- Estimating Ground Carbon Dioxide Flux and its Component in a Stand of Oil Palm
- Guidelines on Land Application of Palm Oil Mill Effluent (POME)
- Land Application of Palm Oil Mill Effluent (POME) of Oil Palm Using a Tractor-tanker and Flatbed System
- Chlorophylls and Vegetable Oils
- PORIM News

No. 29

November 1994. 48 pages. RM 21.00 / USD 11.00

Contents:

- Application of Laser Techniques in Oils and Fats Analysis
- Early Performance of Some Tanzanian Palms
- Some Consideration of Tank Coatings for Quality Preservation of Palm Oil
- The Age Effect of Oil Palms on Oil Extraction Rate in Peninsular Malaysia
- Expected Malaysian Palm Oil Production, 1995 and Some Consideration on Factors Affecting Palm Oil Prices
- PORIM News

No. 30

May 1995. 30 pages. RM 21.00 / USD 11.00

Contents:

- Estimation of Compression Pressure in the Preparation of Pellets from Oil Palm Bunches
- Sensory Evaluation and its Applications
- Microencapsulated Palm Oil Based Products
- Shortening Based on Palm Oil Products
- Hydrolysis of Palm Oil Product – an Overview
- PORIM News

No. 31

November 1995. 32 pages. RM 21.00 / USD 11.00

Contents:

- Determination of Iodine Values of Palm Oil and Palm Kernel Oil Products Using Non-chlorinated Solvents
- Contribution of Palm Oil Value-added Products to the Malaysian Economy and the World
- Expected Malaysian Palm Oil Production 1996 and the Observations on Age Effects in Some Oil Palm Yield Components
- Guidelines on Assessing Palm Oil Mill Extraction Efficiency
- PORIM News

No. 32

May 1996. 48 pages. RM 21.00 / USD 11.00

Contents:

- A Lysimetric Study on the Effects of N and P Fertilizer Application on Decomposition and Nutrient Release of Oil Palm Empty Fruit Bunches
- Food Biotechnology Application in the Palm Oil Industry
- Production of Palm-based Ice Cream
- Economic Feasibility of Palm-based Salad Dressing Production
- PORIM News

No. 33

November 1996. 36 pages. RM 21.00 / USD 11.00

Contents:

- Ecotoxicology Evaluation of Substance in the Environment – A Review
- Project Appraisal Using Data Analysis and Simulation (DASI) Programme: a Hypothetical Case Study
- PORIM News

No. 34

May 1997. 46 pages. RM 21.00 / USD 11.00

Contents:

- Factors Inhibiting Rate of Mechanization in Oil Palm Estates
- Recent Progress on Research and Development on Pest for Oil Palm
- Expected Malaysian Palm Oil Production in 1997 and Some Notes on the 1996 Estimation
- PORIM News

No. 35 #

November 1997. 40 pages. RM 21.00 / USD 11.00

Contents:

- Milling Cost of Oil Palm Fresh Fruit Bunches: A Medium Term Scenario
- Applications of Microwave Technologies and their Potential Assimilation in the Palm Oil Industry
- Palm-based Oleochemicals as Inert Ingredients in Pesticide Formulations
- Short Communications
- PORIM News

No. 36

May 1998. 40 pages. RM 21.00 / USD 11.00

Contents:

- A Planned Approach towards Future Development of Oil Palm Smallholders in Malaysia
- The Effects of Physical Characteristics of Aluminium Pole on the Harvesting Productivity of Tall Palms
- Efficient Rooting of Oil Palm *in vitro* Plantlets Using Double-layer Technique
- PORIM News

No. 37

November 1998. 32 pages. RM 21.00 / USD 11.00

Contents:

- Empty Fruit Bunch Mulching and Nitrogen Fertilizer Amendment: the Resultant Effects on Oil Palm Performance and Soil Properties
- Survey of the Chemical and Physical Characteristic of Some Commercial Malaysian Palm Glycerin
- Expected Malaysian Palm Oil Production in 1999 and Factors for Low Production in 1999
- PORIM News

No. 38

May 1999. 59 pages. RM 21.00 / USD 11.00

Contents:

- PORIM Oil Palm Planting Materials
- Properties of Boiler Fly Ash from Various Palm Oil Mills
- The Effect of Design Parameters on Force and Energy Requirements for Cutting Oil Palm Frond
- Minor Components of Palm Oil
- Medium Chain Triglycerides: A Brief Review
- Economic Analysis of Beef Cattle Integration in Mature Oil Palm
- PORIM News

No. 39

November 2000. 49 pages. RM 21.00 / USD 11.00

Contents:

- Potential Use of Oil Palm Lignocellulosic Materials in Preparation of Stone Mastic Asphalt – A Short Study
- Studies on Bleachability of Palm Kernel Oil, Olein and Stearin: Optimum Conditions and Effects on Composition and Quality
- BOD, TSS and Colour Reduction of Palm Oil Mill Effluent Using Boiler Fly Ash
- Towards Higher Yield Potential, Production and its Prediction in Oil Palm
- Oil Palm Lignocellulose Biomass Utilization: Novel Value-added Products
- PORIM News

Oil Palm Bulletin (formally known as PORIM Bulletin)

ISSN 1511 - 7634

No. 40

May 2000. 44 pages. RM 21.00/USD14.00

Contents:

Additives for Petroleum Fuels and Lubricants, Biofuels and Biolubricants - A Review
Characterization of Sludge Palm Oil
Acute Moisturizing Effect of Palm-based Lotions
Forecast of Malaysian and Indonesian Palm Oil Production
PORIM INFORMS: An Innovative Fertilizer Organization Management System for
Oil Palm in the New Millennium
MPOB News

No. 41

November 2000. 49 pages. RM 21.00/USD14.00

Contents:

Intensive IPM for Management of Oil Palm Pests
Material Safety Data Sheets for Palm Oil Products: Some Information and
Suggestions
A Review on the Quantitative Analyses of Fats and Oils Using Fourier Transform
Infrared Spectroscopy
DNA Microarray Applications in Oil Palm
Advances in Fertilizer Management in the Oil Palm Industry
MPOB News

No. 42

May 2001. 39 pages. RM 21.00/USD14.00

Contents:

Case Study of a High Income Smallholder
Malaysian Palm Oil Extraction Rate (OER): Response to Market and Management Factors
Cell Cycle Genes and Somatic Embryogenesis of Oil Palm: Potential Roles
Improvement of Credibility in the Analysis of Palm Oil Through SAMM Accreditation - The MPOB Experience
Monitoring the Long Term Effects of Land Application of Palm Oil Mill Effluents to Oil Palm on Water Quality
MPOB News

No. 43

November 2001. 51 pages. RM 21.00/USD14.00

Contents:

Genes Controlling Flowering: Possible Roles in Oil Palm Floral Abnormality
Metabolic Control Analysis - Theory and Experimental Application
Yield Potential of Various Sources of Planting Materials in Malaysia: Second Round Evaluation
Effects of Temperature on the Quality of Fresh Crude Palm Oil at Different Stages of Processing
Characteristics of Simple and Chemically Interesterified Blends Containing Palm Stearin, Sunflower Oil and Palm Kernel Olein and Potential Application of Blends in Fats Spreads Formulations
MPOB News

No. 44

May 2002. 42 pages. RM 21.00/USD14.00

Contents:

- Performance of Oil Palm on Coral Soils
- Chemical Composition of Alkaline Pulps from Oil Palm Empty Fruit Bunches
- Physical and Mechanical Properties of Oil Palm Fibres and Polyethylene Hybrid Composite
- Design and Evaluation of an Improved Aluminium Harvesting Pole (Hi-Reach) for Tall Palm Harvesting
- MPOB News

No. 45

November 2002. 30 pages. RM 21.00/USD14.00

Contents:

A Note on the Long-Term Palm Oil Yield Trend
Blending of Palm Oil and Palm Product with Others Oil and Fats for Food Applications
Towards Understanding and Controlling Abscission in the Oil Palm
Thermal Conductivity of Oil Palm Fibre - Polyethylene Hybrid Composite
MPOB News

No. 46

May 2003. 42 pages. RM 21.00/USD14.00

Contents:

Going Back to Basics: Producing High Palm Oil Yields Sustainably
The Malaysian National Average Oil Palm: Concept and Evaluation
Performance of WakFoot as an In-field FFB Transporter for Soft Ground and Peat
Techniques to Improve the Colour Stability of Some Commercial Stearic Acids Blends
MPOB News

No. 47

November 2003. 42 pages. RM 21.00/USD14.00

Contents:

- The Potential of Biological Management of Basal Stem Rot of Oil Palm: Issues, Challenges and Opportunities
- *Ganoderma* Versus Mycorrhiza
- Current Status of Malaysian Crude Palm Kernel Oil Characteristics
- Polymorphic Behaviour of Blends of Palm Oil and Palm Olein with Sunflower Oil and Palm Kernel Olein as Affected by Blending and Inter-Esterification
- A Survey on Cosmetics Products Marketed in Malaysia: Microbiological Aspect
- MPOB News

No. 48

May 2004. 33 pages. RM 21.00/USD14.00

Contents:

- Estimating Maintenance Respiration of Oil Palm
- The Role of Leaf Area Index (LAI) in Oil Palm
- Oil Palm Root Study Using the Mini-Rhizotron Technique
- Importance of Water Use Efficiency (WUE) in Oil Palm Productivity
- MPOB News

No. 49

November 2004. 30 pages. RM 21.00/USD14.00

Contents:

- Water Deficit and Irrigation in Oil Palm: A Review of Recent Studies and Findings
- Performance of the Poritex Geotextile Hose in Oil Palm Irrigation
- Washing Performance of Some Laundry Powder Detergents in the Malaysian Market
- Evaluation Method of Continuous Process for Modified Polishing Drum
- MPOB News

No. 50

May 2005. 42 pages. RM 21.00/USD14.00

Contents:

- Oil Palm - Achievements and Potential
- Oil Palm Growth and Yield as Affected by Densities, Progenies and Nitrogen Fertilizer on *Typic ebdiaqyeots* Soil: Early Results
- Oil Palm Planting in Marginal Soils: Selected Cases
- Regulations on Quality of FFB
- MPOB News

No. 50

November 2005. 42 pages. RM 21.00/USD14.00

Contents:

- Potential Application of Marker Assisted Selection (MAS) in Oil Palm
- Carbon Dioxide Enrichment in Oil Palm Canopies and its Possible Influence on Photosynthesis
- Red Palm Olein as a Source of β -Carotene and Colouring Agent in Cake
- Microbial Degradation of Flexible Polyurethane Foams

No. 51

November 2005. 38 pages. RM 21.00/USD14.00

Contents:

- Potential Application of Marker Assisted Selected (MAS) in Oil Palm
- Carbon Dioxide Enrichment in Oil Palm Canopies and its Possible Influence on Photosynthesis
- Red Palm Olein as a Source of β -Carotene and Colouring Agent in Cake
- Microbial Degradation of Flexible Polyurethane Foams by *Aspergillus niger* and *Aspergillus terreus*
- MPOB News