

OP201

OIL PALM BIOMASS MANAGEMENT & RESOURCE RECOVERY

Turning Waste into Valuable Resources

HRD CORP CLAIMABLE	INDUSTRY SPECIFIC (IS)	1 DAY	PROGRAMME NO. 10001752582
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WHY OP201?

Oil palm plantations and mills generate valuable biomass resources including OPF, OPT, EFB, POME, mesocarp fibre, PKS, decanter cake and boiler ash. OP201 develops practical understanding of how these resources can be collected, handled, prepared, recovered and converted into useful products or energy. Participants evaluate recovery opportunities using technical, economic and environmental considerations and develop a workplace biomass-management improvement plan.

START WITH THE RESOURCE QUESTIONS

What biomass resources are generated across plantation and mill operations?
How should they be collected, transported, stored and prepared for recovery?
Which recovery technologies and value-added uses are suitable for each resource?

BY THE END OF THE COURSE, PARTICIPANTS SHOULD BE ABLE TO
Identify major oil palm biomass resources and current management challenges.

Match biomass resources with suitable recovery and utilisation technologies.

Evaluate opportunities using technical, economic and environmental considerations.

Develop a practical workplace biomass-management improvement plan.

WHO SHOULD ATTEND?

Plantation Managers • Estate Managers • Mill Managers • Assistant Managers • Mill Engineers • Agronomists • Sustainability Managers • Environmental Officers • Operations Executives • Plantation Supervisors • Plantation Owners • Smallholder Cooperative Leaders

KEY LEARNING OUTCOMES

- Explain at least seven major biomass resources generated from oil palm plantation and palm oil mill operations.
- Describe current biomass-management practices and major operational challenges affecting the oil palm industry.
- Match major oil palm biomass resources with suitable resource-recovery and utilisation technologies.
- Evaluate recovery opportunities using technical, economic and environmental considerations, including sustainability, ESG and circular-economy benefits.
- Develop a practical workplace biomass-management improvement plan for resource recovery within the organisation.

MAP BIOMASS → HANDLE & PREPARE → MATCH TECHNOLOGY → EVALUATE VALUE → PLAN IMPLEMENTATION → IMPROVE

OP201 • COURSE OVERVIEW

Oil Palm Biomass Management & Resource Recovery: Turning Waste into Valuable Resources

COURSE CONTENT — FROM BIOMASS RESOURCE TO WORKPLACE ACTION

1 Oil Palm Biomass Landscape	Map biomass generation across plantation and mill operations, current industry challenges and circular-economy opportunities.
2 Biomass Resources & Value Potential	Examine OPF, OPT, EFB, POME, mesocarp fibre, PKS, decanter cake and boiler ash as recoverable resources.
3 Collection, Handling & Preparation	Consider collection, transport, storage, moisture management, size reduction and quality control before recovery.
4–5 Recovery Technologies & Value-added Uses	Match resources with composting, vermicomposting, biochar, anaerobic digestion, biomass energy and emerging technologies; consider organic fertiliser, soil amendments, renewable energy, animal feed and bio-based products.
6–8 Sustainability, Implementation & Action Planning	Evaluate ESG, carbon reduction, waste minimisation and resource efficiency; consider economics, operations, risk, stakeholders and best practices; prioritise opportunities and develop a workplace action plan.

WORKPLACE ACTION PLANNING

IDENTIFY OPPORTUNITIES → PRIORITISE PROJECTS → DEVELOP ACTION PLAN → MONITOR PROGRESS → CONTINUOUS IMPROVEMENT

Participants bring the course together by identifying resource-recovery opportunities in their workplace, prioritising suitable projects and developing a practical biomass-management improvement plan. The plan considers operational needs, economic evaluation, risks, stakeholder engagement, monitoring and continuous improvement.

The course supports practical resource recovery, operational efficiency, sustainability performance and circular-economy implementation in plantation and mill operations.

TRAINER & ORGANISATION



Nip Wing Kan
Chairman, Persatuan Petani Organik dan Regeneratif Sabah (SORFA)
SORFA Lead Trainer • Regenerative Agriculture & Circular Economy Practitioner • Biomass / Biochar Field Practitioner
Training draws on SORFA's practical work in biomass utilisation, biochar, composting, biological processing and circular resource recovery in Sabah.

COURSE ENQUIRY & REGISTRATION

SORFA — Sabah Organic & Regenerative Farmers Association

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HRD Corp Training Programme No. 10001752582 • Industry Specific (IS) • 1 Day