

## New Entries to IPNI Library as References

Aye T. M. 2014. Field handbook - 4R nutrient management of oil palm in Myanmar, IPNI, Penang, Malaysia.

**Reference ID:** 20572

**Notes:** S 8.1.1.1 #20572e

Aye T. M. 2014. Field handbook - 4R nutrient management of rice in Myanmar, IPNI, Penang, Malaysia.

**Reference ID:** 20573

**Notes:** S 8.2.1.1 #20573e

Aye T. M. 2014. Field handbook - 4R nutrient management of sugarcane in Myanmar, IPNI, Penang, Malaysia.

**Reference ID:** 20574

**Notes:** S 8.3.1.1 #20574e

Aye T. M. 2014. Field handbook - 4R nutrient management of cassava in Myanmar, IPNI, Penang, Malaysia.

**Reference ID:** 20575

**Notes:** S 8.4.1.1 #20575e

Aye T. M. 2014. Field handbook - 4R nutrient management of rubber in Myanmar, IPNI, Penang, Malaysia.

**Reference ID:** 20576

**Notes:** S 8.1.2.1 #20576e

Yadav, H. and Shalendra. An analysis of performance of guar crop in India. 1-81. 2014. CCS National Institute of Agricultural Marketing.

**Reference ID:** 20577

**Notes:** #20577e

Abstract: India is the largest producer of Guar and contributes 80 percent of total Guar production in the world. Guar crop is cultivated mainly during Kharif season. Total production of Guar bean in India is estimated to have crossed 2.7 million metric tons during the agricultural year 2013-14. Guar crop has experienced a remarkable journey from a traditional crop grown on marginal lands mainly for food, animal feed and fodder to a crop with various industrial usages ranging from food, cosmetics, printing, pharma textile, etc. The unique binding, thickening and emulsifying property of guar gum powder obtained from guar seed has made it a much sought after product in international market. The United States of America is the largest exporter of Guar from India. What had been a minor crop with limited business interest and virtually no need for analysis became in two years India's largest agricultural export to the United States. The area, production and yield of the crop are inconsistent due to its overdependence on weather and production confined to limited geographical area largely arid regions. Guar bean yields vary by as much as 300 percent year on rainfall and weather conditions, making production forecasting extremely difficult compared to other field crops. The Guar crop does not respond to fertilization or to

irrigation, and excess rainfall can adversely affect yields. Hence there is a need for analysis of factors influencing yields to enable more accurate estimation of production during the season and just after harvest.

NMCE. Report on Guar seed. 1-12. 2014. National Multi-commodity Exchange of India Limited (NMCE).

**Reference ID:** 20578

**Notes:** #20578e

Mariyono J. 2014. Rice production in Indonesia: policy and performance. Asia Pacific Journal of Public Administration, 36:123-134.

**Reference ID:** 20579

**Notes:** #20579e

Abstract: Rice is a politically strategic commodity in Indonesia. The government seeks to ensure that rice production meets the needs of domestic consumption and, accordingly, is interested in its performance as a matter of considerable policy significance. This study addresses its performance in accordance with several determining factors, underlying which is the concept of technical efficiency. Panel aggregate data on input-output rice production in 23 provinces during 1993-2013 are employed for estimating frontier production functions. The results indicate that variation in rice production across regions of the country is due primarily to technical efficiency. Sources of variation within technical efficiency include intensification, training programmes, land fertility and local culture. Of the regions investigated, rice production in Bali has been the most efficient. Overall, efficiency of production is low and has marginally decreased over time in all regions. The study concludes that there is considerable room for productivity improvements through increases in efficiency. Training in relevant agricultural methods, the creation of wetlands, and an improvement in irrigation infrastructure are the best ways to enhance rice production.

Dobbs, R., Ramaswamy, S., Stephenson, E., and Viguerie, S. P. Management intuition for the next 50 years. 1-8. 2014. McKinsey & Company.

**Reference ID:** 20580

**Notes:** #20580e

Abstract: The collision of technological disruption, rapid emerging-markets growth, and widespread aging is upending long-held assumptions that underpin strategy setting, decision making, and management.

Hall, S., Lovallo, D., and Musters, R. How to put your money where your strategy is. 1-8. 2014. McKinsey & Company.

**Reference ID:** 20581

**Notes:** #20581e

Abstract: Most companies allocate the same resources to the same business units year after year. That makes it difficult to realize strategic goals and undermines performance. Here's how to overcome inertia.

Fruk, M., Hall, S, and Mittal, D. Never let a good crisis go to waste. 1-3. 2013. McKinsey & Company.

**Reference ID:** 20582

**Notes:** #20582e

Abstract: New research shows that actively reallocating corporate resources is even more important in a downturn than it is in good times.

Agamuthu P., Y. K. Chan, R. Jesinger, K. M. Khoo, and W. J. Broughton. 1981. Effect of differently managed legumes on the early development of oil palms (*Elaeis guineensis* Jacq.). *Agro-Ecosystems*, 6:315-323.

**Reference ID:** 20583

**Notes:** #20583e

Abstract: We studied the effects of different covers (none, legume and natural) established in different ways (with legumes only: hand-weeded, hand-weeded plus extra fertilizer, and with pre-emergent application of the herbicide Oxyfluorfen at 0.25 kg active ingredient ha<sup>-1</sup>), on the first 3.5 years' growth and yield of oil palms (*Elaeis guineensis* Jacq.). Legumes were a mixture of *Centrosema pubescens* and *Pueraria phaseoloides*. Natural generation consisted mostly of *Nephrolepis biserrata* and *Paspalum conjugatum*. Early rates of growth of the palms (as measured by frond area, girth, height, etc.) were greatest in the bare plots and the first yields of fresh fruit bunches were significantly higher than with any other treatment. On the other hand, relative growth rates and net assimilation rates were higher in legume plots (particularly those established with Oxyfluorfen) throughout most of the experimental period. This means that the rate of growth of palms in legume treated plots steadily overtook the rate of growth of those in bare plots. Presumably, these differences resulted from rapid exploitation of soil nutrients by palms in bare plots, and the "banking" of these same nutrients in legume plots.

Luskin M. S. and M. D. Potts. 2011. Microclimate and habitat heterogeneity through the oil palm lifecycle. *Basic and Applied Ecology*, 12:540-551.

**Reference ID:** 20584

**Notes:** #20584e

Abstract: The rapid expansion of oil palm cultivation and corresponding deforestation has invoked widespread concern for biodiversity in Southeast Asia and throughout the tropics. However, no study explicitly addresses how habitat characteristics change when (1) forest is converted to oil palm, or (2) through the dynamic 25-30-year oil palm lifecycle. These two questions are fundamental to understanding how biodiversity will be impacted by oil palm development. Our results from a chronosequence study on microclimate and vegetation structure in oil palm plantations surrounding the Pasoh Forest Reserve, Peninsular Malaysia, show dramatic habitat changes when forest is converted to oil palm. However, they also reveal substantial habitat heterogeneity throughout the plantation lifecycle. Oil palm plantations are created by clear-cutting forests and then terracing the land. This reduces the 25 m-tall forest canopy to bare ground with a harsh microclimate. Eightyear-old oil palm plantations had 4m open-canopies; 22-year-old plantations had 13m closed-canopies. Old plantations had significantly more buffered microclimates than young plantations. Understory vegetation was twice as tall in young plantations, but leaf litter depth and total epiphyte abundance were double in old plantations. Nonetheless, leaf litter coverage was patchy throughout the oil palm life cycle due to the stacking of all palm fronds. Overall, oil palm plantations were substantially hotter (+2.84 °C) and drier (+0.80 hPa vapor pressure deficit), than

forests during diurnal hours. However, there were no nocturnal microclimate differences between forests and plantations. Finally, we describe how the variable retention of old palm trees during crop rotation can retain habitat features and maintain more stable microclimate conditions than clear-cutting senescent plantations. We discuss the implications of habitat changes for biodiversity and introduce three methods to utilize temporal habitat heterogeneity to enhance the quality of the oil palm landscape matrix.

Fairhurst T., J.-P. Caliman, R. Hardter, and C. Witt 2006. Kelapa sawit - Kelainan hara and pengelolaannya (Seri Kelapa Sawit Volume 7), PPI, Canada.

**Reference ID:** 20585

**Notes:** S 8.1.1.1 #20585

Rankine I. R. and T. Fairhurst 2009. Buku Petunjuk - Tanaman Menghasilkan (Seri Kelapa Sawit Volume 6), IPNI, Penang, Malaysia.

**Reference ID:** 20586

**Notes:** S 8.1.1 #20586

Fairhurst T., J.-P. Caliman, R. Hardter, and C. Witt 2004. Oil palm - Nutrient disorders and nutrient management (Oil palm series Volume 7), IPNI, Penang, Malaysia.

**Reference ID:** 20587

**Notes:** S 8.1.1.1 #20587

Rankine I. R. and T. Fairhurst 2009. Buku petunjuk - Tanaman belum menghasilkan (Seri kelapa sawit volume 5), IPNI, Penang, Malaysia.

**Reference ID:** 20588

**Notes:** S 8.1.1 #20588

Rankine I. R. and T. Fairhurst 2009. Buku petunjuk - pembibitan (Seri kelapa sawit Volume 4), IPNI, Penang.

**Reference ID:** 20589

**Notes:** S 8.1.1 #20589

Chung G. F., C. T. Lee, S. B. Chiu, and K. H. Chee 2013. Pictorial guide to common weeds of plantations and their control, Agricultural Crop Trust (ACT), Selangor, Malaysia.

**Reference ID:** 20590

**Notes:** S 4 #20590

IPNI 2012. Specialty coffee: managing quality, IPNI, Penang, Malaysia.

**Reference ID:** 20591

**Notes:** S 8.1.5 #20591

Aye T. M. 2012. Nutrient management of selected crops in Myanmar, IPNI, Penang, Malaysia.

**Reference ID:** 20592

**Notes:** S 26.1.6 #20592

IPNI. An introduction on IPNI cocoa care project for sustainable intensification. 2014. Penang, Malaysia, IPNI.

**Reference ID:** 20593

**Notes:** S 8.1.4 #20593

Paramananthan S. 2014. Selected papers on soil science problem soils, Agricultural Crop Trust (ACT) & Param Agricultural Soil Surveys (PASS), Selangor, Malaysia.

**Reference ID:** 20594

**Notes:** S 1.3 #20594

IPNI 2006. Soil fertility manual, IPNI, Georgia, USA.

**Reference ID:** 20595

**Notes:** S 2.8 #20595

IPNI. Nutrient deficiency symptoms in oil palm. 2005. Penang, Malaysia, IPNI.

**Reference ID:** 20596

**Notes:** S 8.1.1.1 #20596

IPNI. Nutrient deficiency symptoms in oil palm (Burmese). 2013. Penang, Malaysia, IPNI.

**Reference ID:** 20597

**Notes:** S 8.1.1.1 #20597

IPNI. Symptômes des déficiences minérales chez le palmier à huile (French). 2013. Penang, Malaysia, IPNI.

**Reference ID:** 20598

**Notes:** S 8.1.1.1 #20598

IPNI. Gejala kahat hara pada tanaman kelapa sawit. 2006. Penang, Malaysia, IPNI.

**Reference ID:** 20599

**Notes:** S 8.1.1.1 #20599

IPNI. Nutrient disorders in rice. 2005. Penang, Malaysia, IPNI.

**Reference ID:** 20600

**Notes:** S 8.2.1.1 #20600

IPNI. Planters' diary 2006. 2006. Singapore.

**Reference ID:** 20601

**Notes:** S 36 #20601

IPNI. Planters' diary 2007. 2007. Singapre.

**Reference ID:** 20602

**Notes:** S 36 #20602

IPNI. Planters' diary 2008. 2008. Singapore.

**Reference ID:** 20603

**Notes:** S 36 #20603

IPNI. Planters' diary 2009. 2009. Singapore.

**Reference ID:** 20604

**Notes:** S 36 #20604

IPNI. Planters' diary 2010. 2010. Singapore.

**Reference ID:** 20605

**Notes:** S 36 #20605

IPNI. Planters' diary 2011. 2011. Singapore.

**Reference ID:** 20606

**Notes:** S 36 #20606

IPNI. Planters' diary 2012. 2012. Singapore.

**Reference ID:** 20607

**Notes:** S 36 #20607

IPNI. Planters' diary 2013. 2013. Singapore.

**Reference ID:** 20608

**Notes:** S 36 #20608

IPNI. Planters' diary 2014. 2014. Singapore.

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**Notes:** S 36 #20609

Fairhurst T. and W. Griffiths 2014. Oil palm: Best management practices for yield intensification, IPNI, Penang, Malaysia.

**Reference ID:** 20610

**Notes:** S 8.1.1 #20610

MOSTA 2014. Palm fruit oil: Excellence through innovation leadership & industrialization, Malaysian Oil Scientists' and Technologists' Association (MOSTA), Selangor, Malaysia.

**Reference ID:** 20611

**Notes:** S 8.1.1 #20611

MOSTA. 2014. Oil and fats international Congress 2014. Pages 1-91 Malaysian Oil Scientists' and Technologists' Association (MOSTA), Selangor, Malaysia.

**Reference ID:** 20612

**Notes:** S 8.1.1 #20612

Huth N. I., M. Banabas, P. N. Nelson, and M. Webb. 2014. Development of an oil palm cropping systems model: Lessons learned and future directions. Environmental Modelling & Software, 1-9.

**Reference ID:** 20613

**Notes:** #20613e

Abstract: Oil palm has become one of the most important crops in the world with questions being raised about its economic and environmental sustainability. Agricultural systems models are regularly employed in studying sustainable crop management but no detailed model is currently available for oil palm systems. We developed a production systems model for oil palm within the Agricultural Production Systems Simulator (APSIM) framework and tested it using data across a range of environments within Papua New Guinea (PNG). The model captured key growth responses to climate and management. This demonstrates that modern modelling frameworks do allow for rapid model development for new agricultural systems. However, whilst application of the model is promising, the availability of key data is

likely to restrict its use. Local soil and weather data are not available in adequate detail for many of the major oil palm production areas, although some methods exist to address this.

Strunk W. Jr. and E. B. White 2000. The element of style (4th edition), Allyn & Bacon.

**Reference ID:** 20614

**Notes:** S GENERAL #20614e