



NEWSFLASH : The implications of oil palm yield intensification: best management practices for nutrient use

January 09, 2013. Penang, Malaysia – The last fifty years has witnessed a dramatic increase in palm oil production, largely due to plantation area expansions. However, this is no longer feasible for future growth as this practice is environmentally unsustainable. Oil palm producers need to focus on more resourceful options in order to meet global demands for vegetable oil and bio fuel.

However, many existing plantations are not producing optimum yields despite the oil palm's potential for producing more oil per hectare per year than any other crop. Instead, there is a huge gap between the actual yield produced and the attainable yield. Yield intensification through improved nutrition management is part of the solution to rectify this problem.

Successful best management practices (BMP) depend on several factors. Beyond providing nutrients for plant growth, there are other considerations like the interaction between agronomic management and site conditions as well as the efficiency with which applied fertilizers are used by the crop. The International Plant Nutrition Institute – Southeast Asia Program (IPNI SEAP) via its 4R nutrient stewardship philosophy, is developing nutrition-related BMPs that involve the application of sufficient inorganic fertilizers, in combination with organic fertilizers to ensure maximum economic yields and pest/disease-resistance.

A completed four-year BMP project conducted by IPNI SEAP and partner plantations in Indonesia, showed distinct increases in fresh fruit bunch yield. Adjusting the rates of fertilizer application and fertilizer types site-specifically, contributed to these increases. IPNI SEAP recommends fertilizer management in commercial plantations in accordance to RSPO guidelines for sustainability: maintain records of fertilizer application, monitor changes in nutrition status with periodic tissue/soil sampling and ensure environmental standards are adhered to. Under such an implementation framework, the hypothesis can be tested that specific site conditions and management practices will raise the profitability of individual fields significantly when increased amounts of nutrient are applied.

This represents a huge opportunity for the industry. Existing plantations that embark on yield intensification via nutrient-related BMP stand to increase yield, profitability and sustainability, thus reducing the need for plantation expansion.

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About IPNI

The International Plant Nutrition Institute (IPNI) is a not-for-profit, science-based organization dedicated to the responsible management of plant nutrition for the benefit of people. Through cooperation and partnerships with respected institutions around the world, IPNI adds its strength to agronomic research, education, demonstrations, training, and other endeavors. Best management practices for nutrient stewardship encourage the concept of 4Rs - applying the right nutrient source, at the right rate, at the right time, and in the right place. To learn more about IPNI, please visit: www.ipni.net

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