IPNI shows best agronomic management increases dry matter production and fruit production efficiency of oil palm

October 10, 2017. Penang, Malaysia – Enhancing dry matter production with higher partitioning to fruit bunches is important for sustainable intensification of oil palm. International Plant Nutrition Institute (IPNI) Southeast Asia assessed a series of best management practices including site-specific nutrient management, canopy management, and harvesting. The effects of these practices on crop production were observed in a four-year field trial at six study sites across Sumatra and Kalimantan, Indonesia. Dr. Hsiao-Hang Tao, lead author of a recent IPNI / University of Göttingen paper* published in the European Journal of Agronomy, conducted comprehensive analyses of the field data.

Results showed that total aboveground dry matter production was higher under best management practices than current estate practices, especially at sites with higher annual rainfall. Importantly, dry matter partitioning to fruit bunches increased by 12%, while the partitioning to fronds decreased by 8% under best management practices.

IPNI’s Senior Oil Palm Advisor Christopher Donough, who initiated this project in 2006 pointed out that “findings present field-based evidence, highly relevant for plantation managers and smallholders aiming at changing management practices to support sustainable intensification of their plantations or farms.”

* The findings of the study were recently published by Tao et al. (2017) as “Effects of best management practices on dry matter production and fruit production efficiency of oil palm” in European Journal of Agronomy 90:209-215.

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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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