Yield Potential of Oil Palm and Its Attainment in Malaysia*

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The potential yield of oil palm estimated at 18.2 tonnes oil per hectare per year has not been breached by the current planting materials. Nevertheless, plant breeders have raised the genetic yield potential (GYP) of oil palm from 8.5 tonnes oil per hectare per year in 1975 to 12.5 tonnes oil per hectare per year in 2000 based on best crosses and from 6 to 8.3 tonnes oil per hectare per year in the same period on family scale. GYP was elevated to about 10 tonnes oil per hectare per year by exploiting the between origin crosses for heterosis such as the three way cross of Dumpy.Avros.Yangambi and using semi-clonal seeds for specific combining ability.

GYP cannot be used as the yield target for agronomists and estate management because it is usually a point in space. Instead, the site yield potential (SYP) which accounts for palm age and specific yield limiting factors occurring at the site should be used. The major yield reducing and yield loss factors which increase the yield gap between SYP and actual yield are discussed in the paper. To attain SYP, the problem solving team comprising the planting advisers, agronomists and managers with the support of the directors should correctly diagnose the problem areas, identify and interpret the causal factors and formulate the strategy and action plan to rectify them quickly. We should resist the temptation to implement in haste untested practices or products without scientific proof or logic hoping to achieve SYP.

Keywords: Oil palm, yield potential, yield attainment.