

## INTISARI

Pada tahun 2011 lima ratus kakao asal embrio somatik (ES) ditanam di Kebun Unit Segayung dan berbuah pada tahun 2017. Penelitian ini bertujuan untuk mengetahui keragaan buah kakao asal ES di kebun PT. Pagilaran Unit Segayung Utara. Penelitian ini dilaksanakan pada bulan Januari hingga Mei 2017. Lima puluh individu dipilih secara acak kemudian dipanen tiga buah dari setiap pohon. Sifat yang diamati yaitu berat buah, panjang buah, diameter buah, tebal kulit buah, jumlah biji, berat biji basah, berat per biji kering dan berat biji kering per buah. Seluruh sifat yang diamati mempunyai keragaman nyata kecuali sifat jumlah biji per buah. Bobot buah segar yang dipanen berkisar antara 209–649 g dengan jumlah biji per buah sebanyak 40 biji dan bobot 0,38–1,03 g/biji. Berat biji perbuah kakao asal ES berkisar antara 43,67 – 156 g/buah. Produktivitas berkisar antara 0,51-1,7 ton/ha/tahun. Seluruh sifat yang diamati mempunyai nilai heritabilitas yang tinggi dan nilainya berkisar antara 54,71% hingga 99,85%. Nilai koefisien keragaman genetik berkisar antara 39,45% hingga 11,35% dengan kategori tinggi dan sedang. Seluruh sifat yang diamati mempunyai korelasi positif nyata terhadap sifat berat biji per buah. Berdasar analisis regresi sifat berat per biji kering, tebal kulit buah, diameter buah, jumlah biji, panjang polong, berat biji basah dan berat polong. mempunyai pengaruh nyata terhadap berat biji per buah.

Kata kunci : kakao, keragaan, embrio somatik

## ABSTRACT

*In 2011, five hundreds cacao Embryogenesys Somatic (ES) was planted in Segayung site and produced fruits in 2016. This reseach aimed to evaluate the performance of cocoa fruits from ES. The research was held from January to May 2017. Fifty tree stands were randomly selected and three pods from each tree were inspected. The observed parameters were pod weight, pod length, pod diameter, fruit skin thickness, seeds number, wet seed weight, weight per dry seed and dry seed weight per pod. Based on ANOVA, almost all of the observed parameters but the number of seeds per pod had a significant variance. The range of fresh pod weight was 209-649 g. It was also calculated that the number of seeds per pod was 40 and about 0.38-1.03 g/seed in weight. It could also be concluded that the total weight of cacao beans originated from ES in a pod was about 43.67-156 g. The productivity was 0.51 to 1.7 tons/ha/year. The value of heritability was about 54.71%-99.85% and categorized as high. The genetic diversity coefficient value was 39.45%-11.35% and categorized as medium. All parameters had a significant positive correlation with the weight of seeds per pod. Based on regression analysis, the weight per dry seed, fruit skin thickness, pod diameter, number of seeds, pod length, wet seed weight and weight of pods significantly affected the seed weight per pod.*

*Key Word : Cocoa, Performance, Somatic embryo*