



## Actividad fotosintética y su relación con el rendimiento de diez clones de cacao nacional [

2020

text (article)

Analítica

Photosynthetic activity was evaluated in order to identify clones with good physiological performance and obtain relevant information on photosynthetic activity and its correlation with national cocoa production. The analysis included the photosynthesis rate (A), stomatic conductance (gs), water use efficiency (WU) and photochemical activity: quantum efficiency of PSII (FPSII), electron transport rate (J) and the production of cocoa pods and kernels from ten domestic cocoa clones grown in northern Esmeraldas. Differences in A, gs, J and FPSII were found among the clones; the highest A was observed in LDC 12, T8 and INIAP 484, as a result of high gs and J. There was a positive and significant correlation between J, potential photosynthesis (J/10) and cocoa production in the clones evaluated, suggesting that the higher A, as a result of higher photochemical activity in Ecuadorian cocoa, would contribute to a higher amount of photoassimilates, which could partially explain a higher production. The results indicate that the T8, T1, T11 and PMA 12 clones show a high photosynthetic performance, with a higher tolerance to diseases (lower index of diseased pods) and a higher production, so they could be recommended for the northern area of Esmeraldas; while the T13, INIAP 484, T23 and T24 clones work in the opposite direction, i.e. low production, low photochemical capacity and susceptibility to diseases (high index of diseased pods)

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**Editorial:** 2020

**Documento fuente:** Revista ESPAMCIENCIA, ISSN 1390-8103, Vol. 11, Nº. 1, 2020 (Ejemplar dedicado a: REVISTA ESPAMCIENCIA 2020), pags. 19-27

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**Lengua:** Spanish

**Enlace a fuente de información:** Revista ESPAMCIENCIA, ISSN 1390-8103, Vol. 11, Nº. 1, 2020 (Ejemplar dedicado a: REVISTA ESPAMCIENCIA 2020), pags. 19-27

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