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Emergence and early growth of *Gongronema latifolia* in relation to sowing depth and date

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ABSTRACT

Objective: This research was designed to determine the optimum sowing depth for *G. latifolia* at two planting seasons in 2007.
Methodology and results: Treatments comprised of 9 sowing depths. The experiment was arranged in a completely randomized design with 10 replications under 65 % shading. The first and second sowing dates were on 5 May and 5 September 2009, respectively. The results showed that sowing depths of 0-1.5 cm gave significantly (p=0.05) higher level of emergence, ranging from 93 to 83 % respectively, than in deeper sowing, for the first planting period. In the same way, the coefficient of velocity of emergence (CVE %) for 0 and 0.5 cm sowing depth were the same and significantly (p=0.05) higher than the CVE of seedlings emerging from depths beyond 1.5 cm during the former sowing period. The second sowing period led to low emergence rate of 53 % to 5 % at the sowing depths of 0 to 2.0 cm, respectively. Seeds sown at 2.0 cm depth gave significantly (p=0.05) higher hypocotyls lengths in both sowing dates. The

hypocotyls diameter was increasing with increasing depth up to 1.5 cm and it decreased thereafter.
Conclusion and application of finding: The findings revealed that *G. latifolia* must be sowed at a depth of 0 to 1.5 cm beyond this depth, emerging rate and CVE will be poorer.

Keywords: *Sowing depth; G. latifolia; hypocotyls growth; seedling vigour; time of sowing*