

EFFECT OF SOME GROWTH HORMONES ON SEED GERMINATION AND SEEDLING GROWTH OF SOME SAVANNA TREE LEGUMES

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ABSTRACT

Studies were made on the effect of some growth hormones including Indole Acetic Acid (IAA), Indole Butyric Acid (IBA), Kinetin and Gibberellic Acid (GA₃) on seed germination and seedling growth of four savanna tree legumes. The tree species include *Prosopis africa* (Guil & Perr) Taub (Mimosoidae); *Parkia biglobosa* (Jacq) r. Br. Ex G. Don (Mimosoidae); *Albizia lebeck* (linn) Benth (Mimosoidae) and *senna siamea* (Lam) Irwin Barneby (Caesalpinoidae). 0.01-0.04ppm IAA enhanced germination in *P. africana* and *S. siamea*. 0.01-0.05ppm kinetin retarded germination in *P. biglobosa*, *P. africana* and *S. siamea*. 0.01-0.05ppm -GA₃ enhanced germination in *A. lebeck* and *P. africana*. 0.01-0.03ppm IBA enhanced plant height and dry weight in *S. siamea* and only plant height and dry weight in *S. siamea* and only plant height only in *P. biglobosa*. IBA (0.03-0.04ppm) enhanced leaf number in *P. biglobosa* and *A. lebeck*. Kinetin (0.01-0.05ppm) enhanced leaf number in *P. biglobosa*. GA₃ enhanced leaf number and plant height in *P. biglobosa* and plant height in *A. lebeck*

Keywords: Seed germination, seedling growth, growth hormones, savanna, tree-legumes.