Third Article:

Article title	**Interactive effect of *Bradyrhizobiumjaponicum* and mineral-nitrogen on growth, nodulation, acetylene reduction activity and productivity of *Glycinemax* (L.).**
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The effect of seed inoculation by *Bradyrhizobiumjaponicum*(BR) and mineral-nitrogen (N) application on growth, nodulation, nitrogenase activity and yields of three soybean varieties (Giza 35, Giza 32 and Giza 22) was investigated. Giza 22 generated best growth traits (plant height, numbers of leaves per plant, dry weight of leaves, stems and roots, and leaves area per plant), yield and its components (*i.e.*, number of pods per plant, pod yield per plant, seed yield per plant and per hectare), nodules number, nodules dry weight and nodule acetylene reduction activity compared to both Giza 35 and Giza 32. In addition, BR-pretreated plants that received 60 kg N per hectare as a starter dose had increased growth parameters, nodules number, nodules dry weight and nodule nitrogenase activity compared to all other treatments (*i.e.*, BR-pretreated plants, 180 kg N-applied plants, and plants not received BR or N).

Combined treatments of varieties × treatments showed significant and insignificant differences. Results of this study show that, soybean variety of Giza 22 with inoculation of its seeds by BR in addition to applying mineral-N at 60 kg per hectare as a starter dose seemed to be an appropriate cultivation practice for increasing productivity of soybean.