

**B-68 : NODULATION POTENTIAL OF GRAIN LEGUME
CULTIVARS ON REGOSOLS**

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Tremendous increase in fertilizer cost, particularly nitrogenous fertilizers, enforces and encourages the developing countries like Sri Lanka to look for alternatives such as Biological Nitrogen Fixation (BNF) and use of Biofertilizers. A search to identify grain legume cultivars of high BNF potential with native strains of *Rhizobium sp.* in regosols would be an advantage to promote grain legume production.

In view of the above facts, a preliminary investigation was carried out with promising cultivars of grain legumes: cowpea (*Vigna unguiculata*) Wijaya Arlington; mungbean (*Vigna radiata*) and blackgram (*Vigna mungo*) at the Agricultural farm. Eastern University, Chenkalady during Maha 1991/92. Ten plants of each cultivar were carefully uprooted at random at flowering and at three weeks after flowering to evaluate nodulation. The results showed that cowpea cv. Wijaya, mungbean cv. MI-5 and blackgram cv. MI-1 possess the potential of producing effective nodules remarkably well with the indigenous *Rhizobium* strains available in regosols; assessed in term of nodule number, fresh and dry weight of nodules as well as their effectiveness.

The study clearly reveals that suitable grain legume cultivars of high potential for nodulation do exist to promote grain legume production in the Eastern Region, with low use of organic nitrogen fertilizers.