

INFLUENCE OF ORGANIC, INORGANIC AND INTEGRATED NUTRIENT MANAGEMENT ON BIOMASS YIELD AND QUALITY OF BRAHMI

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Abstract: *Bacopa monnieri* (L.) Pennel, commonly known as Brahmi is an important medicinal crop which is in high popularity because of its high market value. Brahmi belongs to the family Plantaginaceae and is extensively being used in Indian system of medicine as a memory booster. Brahmi is used to treat insomnia, insanity, depression, psychosis, stress, cardiac, respiratory problems etc. The therapeutic effect is mainly based on bacosides (saponins). Bacoside A (a saponin glycoside) is the major active ingredient. Nowadays organic farming or integrated nutrient farming in crop production is gaining much boom because of our increasing health consciousness. In this context an experiment was conducted to study the effect of organic and inorganic sources of nutrients on the quality of brahmi at All India Coordinated Research Project on Medicinal, Aromatic Plants & Betelvine, College of Horticulture, Kerala Agricultural University, Thrissur during 2018 - 2019. The experimental design was RBD with six different treatments .The results of the study revealed that plants which received integrated nutrient management (NPK @ 100:60:60 kg/ha along with Farm yard manure @ 10 t/ha) recorded higher biomass yield (6672 kg/ha) and Bacoside A content (0.94%). Integrated Nutrient Management was thus found more effective to boost up the production of the active constituent Bacoside A compared to purely organic or purely inorganic management practices in Brahmi cultivation. Calcium, Magnesium and iron content were also found higher in INM.

Keywords: *Bacopa monnieri* , Bacoside A, Integrated nutrient management (INM)

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