



*Review Article*

## Response of green gram [*Vigna radiata* (L.) Wilczek] to seasons and plant density

**K. SATHYAMOORTHY, M. MOHAMMED AMANULLAH, K. VAIYAPURI, T. ANANTHI AND N. JAGATHJOTHI**

**Abstract :** Greater emphasis is now laid on increasing the productivity and thereby the total production of pulses in order to mitigate the protein hunger of growing population of our country. Hence, cultivation of high yielding input responsive varieties of green gram is being recommended. However, information on the package of technology for such inputs responsive green gram is lacking. Among the various agronomic practices, planting time and plant density are the most important factors influencing the yield of mungbean. Optimum planting time and planting density for mungbean may vary from one variety to another and also from one region to another due to variation of agro-ecological conditions. Hence, to have an understanding on the works done on so far the literature pertaining to response of green gram to season and planting density is reviewed in this article.

**Key Words :** Plant population, Season, Foliar, Growth, Yield, Green gram

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Grain legumes or the pulses are important protein source for human beings. Nutritionally, pulses are two to three times richer in protein than the cereal grains and have remained the least expensive source of protein for the human being since the dawn of the modern civilization.

India has the largest area in the world under grain legumes, cultivated in 23.63 million hectares with a production of 14.76 million tonnes of which green gram occupies an area of 3.78 million ha accounting for 16 per cent of total pulses area and 10.3 per cent of total production and which is the third most important pulse crop of India in terms of area cultivated and production (Ministry of Agriculture, 2007) next to gram and

pigeonpea. The productivity gap analysis revealed that the national average yield of green gram is 413 kg ha<sup>-1</sup> as against 667 kg ha<sup>-1</sup> in Punjab. This indicates the scope for increasing the productivity of green gram by proper management practice.

The low productivity of green gram is due to the cultivation of this crop in marginal and submarginal lands with poor management practices. Availability of high yielding short duration varieties and the possibilities of raising them all through the year, offer now immense scope to remedy the situation of pulse deficit and protein malnutrition by increased productivity. To exploit the full genetic potentiality of any green gram variety, development of management technology would become utmost important. Use of improved crop management packages can invariably increase the productivity by 50 to 100 per cent. In addition to other management practices such as irrigation and plant protection, green gram responded markedly to plant population level and mineral nutrition especially, when applied in balanced amount and by appropriate methods.

However, information involving intensification of different inputs with a view to increase the productivity and economics

— MEMBERS OF RESEARCH FORUM —

**Author of the Correspondence :**

**M. MOHAMMED AMANULLAH**, Department of Agronomy, Tamil Nadu Agricultural University, COIMBATORE (T.N.) INDIA  
Email : aman\_agron@yahoo.co.in

**Address of the Coopted Authors :**

**K. SATHYAMOORTHY, K. VAIYAPURI, T. ANANTHI AND N. JAGATHJOTHI**, Department of Agronomy, Tamil Nadu Agricultural University, COIMBATORE (T.N.) INDIA