Flowering pattern and reproductive efficiency in mungbean.

ABSTRACT

A large proportion of flowers abort during development due to vascular tissue limitation in the distal part of rachis resulting in lower yield in mungbean [Vigna radiata (L.) Wilczek]. Flowering pattern and its relationships with pod retention, reproductive efficiency and yields in 10 local mungbean genotypes were assessed at Mymensingh, Bangladesh in two consecutive years of 2006 and 2007. The number and pattern of flower production, pod retention and reproductive efficiency (RE, percent pod set to opened flowers) varied among the genotypes. Results revealed that the genotypes, which produced higher number of flowers within a shorter period (10-15 days) after commencement of flowering also produced higher yields, attributed from higher number of flowers and pods. In contrast, low yielding genotypes showed reverse trends. However, low yielding genotypes had higher RE than high yielding ones. It further revealed that the genotype with early-formed flowers had higher podset and retention capacity than later-formed ones. The implication of relationships between flower production and RE for mungbean seed yield is also discussed.

Keyword: Vigna radiata; Flowering pattern; Pod set; Pot retention.