

# Combining Ability Analysis of Yield and Yield Components in Pigeonpea [*Cajanus cajan* (L.) Millsp.]

T Kalaimagal, P Amala Balu and P Sumathi

Centre for Plant Breeding and Genetics, Tamil Nadu Agricultural University, Coimbatore 641 003, Tamil Nadu

## ABSTRACT

An attempt was made to develop early duration high yielding hybrids and to study the genetics of various characters in pigeonpea. Three lines and twenty one early duration testers were selected for the study. The characters viz., days to fifty per cent flowering, days to maturity, plant height, branches per plant and pods per plant were controlled by additive gene action, while the traits viz., clusters per plant, seeds/pod, pod length, 100 seed weight and seed yield per plant were controlled by non-additive gene action. The hybrid combinations viz., ms CO5 x ICPAL 83027, ms CO5 x ICPL 83024, msCO5 X ICPL 87105 and ms CO5 x ICPL 87 were the best performing early duration high yielding hybrids, which can be exploited commercially.

**Key words :** Gene Action, Hybrids, Pigeonpea