Radha Rani et al., Agrotechnol 2014, 2:4
http://dx.doi.org/10.4172/2168-9881.S1.007

OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference on
Agricultural & Horticultural Sciences
Radisson Blu Plaza Hotel, Hyderabad, India February 03-05, 2014

Genetic variability, character association and path analysis in early segregating population of bitter gourd (*Momordica charantia* L.)

Radha Rani, K. Ravinder Reddy and Ch. Surrender Raju
Dr. Y. S. R. Horticultural University, India

The present investigation was carried out to find out the nature and magnitude of genetic variability and association studies in segregating population of bitter gourd for yield and its attributing traits to select transegressive segregants for further breeding programme. The experiment was laid out in randomized block design with three replications during summer 2011. High heritability coupled with genetic advance as percent of mean were observed for number of fruits/vine, average fruit weight, fruit length and yield/vine indicating the role of additive gene effects in expression of these characters and therefore, they are more reliable for effective selection. Fruit length, number of fruits/vine, vine length, number of laterals/vine and average fruit weight were identified as major characters contributing to yield as these traits were significantly and positively associated with yield/vine. A significant negative correlation of yield was observed with days to 1st male and female flower appeared node number at which 1st male and female flower appeared and sex ratio. The path analysis study revealed that most of the characters indirectly influenced the yield through number of fruits/vine, average fruit weight and fruit length towards the favorable direction which had positive direct effect on yield/vine, suggesting that emphasis must be given characters having high direct effect, while exercising selection to improve the yield.

radha.aphu@gmail.com