

RESEARCH PAPER

ADVANCE RESEARCH JOURNAL OF  
**C R P**  
**IMPROVEMENT**  
Volume 7 | Issue 1 | June, 2016 | 40-45  
..... e ISSN-2231-640X

DOI:  
10.15740/HAS/ARJCI/7.1/40-45  
Visit us: [www.researchjournal.co.in](http://www.researchjournal.co.in)

# Correlation between traits and path analysis co-efficient for grain yield and other components in direct seeded aerobic rice (*Oryza sativa* L.)

■ G. PRIYANKA<sup>2</sup>, P. SENGUTTUVEL, M. SUJATHA<sup>2</sup>, N. SRAVANRAJU<sup>1</sup>, P. BEULAH<sup>1</sup>, P. NAGANNA<sup>1</sup>, P. REVATHI<sup>1</sup>, K.B. KEMPARAJU<sup>1</sup>, A.S. HARI PRASAD<sup>1</sup>, K. SUNEETHA<sup>1</sup>, BRAJENDRA<sup>1</sup>, B. SREEDEVI<sup>1</sup>, V.P. BHADANA<sup>1</sup>, R.M. SUNDARAM<sup>1</sup>, SHESHU MADHAV<sup>1</sup>, L.V. SUBBARAO<sup>1</sup>, G. PADMAVATHI<sup>1</sup>, SANJEEVA RAO<sup>1</sup>, R. MAHENDER KUMAR<sup>1</sup>, D. SUBRAHMANYAM<sup>1</sup> AND V. RAVINDRABABU<sup>1</sup>

## AUTHORS' INFO

### Associated Co-author :

<sup>1</sup>Hybrid Rice, Crop Improvement Section, Indian Institute of Rice Research, Rajendranagar, HYDERABAD (A.P.) INDIA

<sup>2</sup>Department of Genetics and Plant Breeding, College of Agriculture, Professor Jayashankar Telangana State Agricultural University, Rajendranagar, HYDERABAD (A.P.) INDIA

### Author for correspondence:

#### P. SENGUTTUVEL

Hybrid Rice, Crop Improvement Section, Indian Institute of Rice Research, Rajendranagar, HYDERABAD (A.P.) INDIA  
Email: [senguttuvel@gmail.com](mailto:senguttuvel@gmail.com)

**ABSTRACT :** The experiment was conducted out at the Indian Institute of Rice Research, Rajendranagar, Hyderabad during dry season (*Rabi*) 2013-2014 and Wet season (*Kharif*) 2014 crop seasons. The objective was to establish the nature of relation between grain yield and yield components by partitioning the correlation co-efficients between grain yield and its components into direct and indirect effects by using simple correlation and path analysis. A correlation co-efficient and path analysis study was conducted with eleven parents and their 24 F<sub>1</sub> crosses for eleven component characters including grain yield. The correlation studies of these crosses showed that, grain yield per plant exhibited highly significant positive association with plant height, number of productive tillers per plant, panicle length, grains per panicle, and harvest index while days to 50 per cent flowering registered non-significant negative association with grain yield.

**KEY WORDS :** Rice, Correlation, Path analysis, Direct effects, Yield components

**How to cite this paper :** Priyanka, G., Senguttuvel, P., Sujatha, M., Raju, N. Sraavan, Beulah, P., Naganna, P., Revathi, P., Kemparaju, K.B., Prasad, A.S. Hari, Suneetha, K., Brajendra, Sreedevi, B., Bhadana, V.P., Sundaram, R.M., Madhav, Sheshu, Rao, L.V. Subba, Padmavathi, G, Rao, Sanjeeva, Kumar, R. Mahender, Subrahmanyam, D. and Ravindrababu, V. (2016). Correlation between traits and path analysis co-efficient for grain yield and other components in direct seeded aerobic rice (*Oryza sativa* L.). *Adv. Res. J. Crop Improv.*, 7 (1) : 40-45, DOI : 10.15740/HAS/ARJCI/7.1/40-45.

**Paper History :** Received : 01.02.2016; Revised : 25.03.2016; Accepted : 27.04.2016