

## Evaluation of the heterobeltiotic and economic heterotic potential of wheat genotypes

■ N.D. DHOLARIYA, V.R. AKABARI AND V.P. CHOVIYA

### **SUMMARY**

Heterobeltiotic and economic heterotic performance of 28 F<sub>1</sub> obtained through crossing 8 commercial varieties, were evaluated for days to 50 % flowering, plant height, number of effective tillers per plant, length of main spike, number of spikelets per main spike, peduncle length of main spike, days to maturity, number of grains per main spike, 100 grains weight, grain weight per main spike, grain yield per plant and harvest index. Number of crosses exhibiting significant positive heterobeltiosis and economic heterosis for grain yield per plant were 6 and 15, respectively. The highest significant positive standard heterosis over GW-366 for grain yield per plant was exhibited by GW-411 x K-583 (59.48 %) followed by GW-366 x GW-411 (44.21 %). It also exhibited significant economic heterosis in desirable direction for yield attributing traits *viz.*, number of effective tillers per plant, number of spikelets per main spike, peduncle length of main spike, 100 grains weight and harvest index. The results revealed that the hybrid combinations GW-411 x K-583 and GW-366 x GW-411 could be recommended for improved yield and enhanced biological production of wheat, respectively.

**Key Words :** Economic heterosis, Grain yield, Heterobeltiosis, Wheat, Yield components

**How to cite this article :** Dholariya, N.D., Akabari, V.R. and Chovatiya, V.P. (2014). Evaluation of the heterobeltiotic and economic heterotic potential of wheat genotypes. *Internat. J. Plant Sci.*, 9 (1): 142-147.

**Article chronicle :** Received : 05.10.2013; Revised : 24.10.2013; Accepted : 04.11.2013

### MEMBERS OF THE RESEARCH FORUM

**Author to be contacted :**

N.D. DHOLARIYA, Main Wheat Research Station, Junagadh Agricultural University, JUNAGADH (GUJARAT) INDIA  
Email: ndbreeder787@gmail.com

**Address of the Co-authors:**

V.R. AKABARI AND V.P. CHOVIYA, Main Wheat Research Station, Junagadh Agricultural University, JUNAGADH (GUJARAT) INDIA