

RESEARCH PAPER

Selection indices for yield improvement in bread wheat under late sown condition

G.D. RAIYANI¹, KOMAL PATEL¹, R.M. JAVIA², V.J. BHATIYA¹ AND V.V. RAMANI²

¹Department of Genetics and Plant Breeding, Junagadh Agricultural University, JUNAGADH (GUJARAT) INDIA

²Pulses Research Station (J.A.U.), JUNAGADH (GUJARAT) INDIA

Email : rmjavia@gmail.com

Article Info :Received : 01.07.2015; Revised : 25.08.2015; Accepted : 11.09.2015

Investigation was carried-out to assess the selection indices in 40 genotypes of wheat (*Triticum aestivum* L.) in limited irrigation under late sowing condition. Sixty-three selection indices, involving grain yield per plant and five yield components, were constructed using the discriminant function technique. The efficiency of selection increased with the inclusion of more number of characters in the index. The selection index based on six characters viz., grain yield per plant, days to maturity, number of productive tillers per plant, number of grain per main spike, biological yield per plant and harvest index under limited irrigated condition exhibited maximum gain and relative efficiency. It is expected that grain yield could be improved if due consideration is given to these traits in future breeding programme of wheat.

Key words : Wheat, Discriminant function, Relative efficiency, Selection indices, Expected genetic advance

How to cite this paper : Raiyani, G.D., Patel, Komal, Javia, R.M., Bhatiya, V.J. and Ramani, V.V. (2015). Selection indices for yield improvement in bread wheat under late sown condition. *Asian J. Bio. Sci.*, **10** (2) : 148-152.