

RESEARCH PAPER

ADVANCE RESEARCH JOURNAL OF
C R P
IMPROVEMENT
Volume 8 | Issue 2 | December, 2017 | 165-171
••••• e ISSN-2231-640X

DOI:
10.15740/HAS/ARJCI/8.2/165-171
Visit us: www.researchjournal.co.in

Agronomic efficiency and economic viability of wheat crop under varied sowing environments in North Western Himalaya

■ KARAN VERMA, RANBIR SINGH RANA¹, SHIVANI THAKUR¹ AND PANKAJ CHOPRA¹

AUTHORS' INFO

Associated Co-author :

¹Department of Agronomy,
Forages and Grassland
Management, C.S.K. Himachal
Pradesh Krishi Vishvavidyalaya,
PALAMPUR, (H.P.) INDIA

Author for correspondence: KARAN VERMA

Department of Agronomy,
Forages and Grassland
Management, C.S.K. Himachal
Pradesh Krishi Vishvavidyalaya,
PALAMPUR, (H.P.) INDIA
Email: karanverma2123@gmail.com

ABSTRACT : The study examines the suitable climatic windows in the face of climate change under limited irrigations under sub temperate climate. The field experiment in Randomized Block Design, comprising of four dates of sowing viz., October 20, November 10, November 30 and December 20, and three genotypes viz., HPW-249, HPW-155 and HPW-42 in silty clay loam, acidic soil was conducted during *Rabi* session for two years at CSKHPKV, Palampur, Himachal Pradesh. The days taken to complete different phenophases were statistically at par amongst varieties, whereas DAS to vegetative stage and heading maturity were observed minimum reflecting lowest DAS for maturity in 20th December sowing. The growth and yield attributes viz., plant height, number of tiller m⁻², number of grains tillers⁻¹ and 1000-grain weight was highest in variety HPW-249 during both the years. Amongst sowing environments, October 20th sown crop gave significantly highest values of growth and yield during both the years. The periodic LAI recorded similar upto 60 DAS and thereafter, the highest values were recorded in HPW-249 upto physiological maturity. Amongst sowing environments, 20th October sown gave highest LAI during entire ontogeny of crop likewise yield attributes, grain and straw yield was highest in 20th October sown crops. Amongst variety HPW-249 gave highest grain yield to the tune of 43.0 in 2011-12 and 45.6 q/ha in 2012-13. The economic returns and benefit cost ratio were also significantly highest in HPW-249 (Rs. 75568 in 2011-12 and 81219 in 2012-13). Likewise, grain yield, net returns and B: C ratio were significantly highest in 20th October sown crop compared to subsequent dates of sowing.

KEY WORDS : Time of sowing, Development studies, Yield, Periodic leaf area index, Economics

How to cite this paper : Verma, Karan, Rana, Ranbir Singh, Thakur, Shivani and Chopra, Pankaj (2017). Agronomic efficiency and economic viability of wheat crop under varied sowing environments in North Western Himalaya. *Adv. Res. J. Crop Improv.*, **8** (2) : 165-171, DOI : 10.15740/HAS/ARJCI/8.2/165-171.

Paper History : Received : 16.06.2017; Revised : 26.10.2017; Accepted : 11.11.2017