

# Crop geometry effects on relative humidity variation within wheat crop

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Article Chronicle :

**Received :**

03.05.2016;

**Revised :**

06.05.2016;

**Accepted :**

23.05.2016

**ABSTRACT :** The present investigation was carried out at Research Farm, School of Climate Change and Agricultural Meteorology during 2012-13 and 2013-14. This study was planned to know the role of agronomic manipulation *i.e.*, change in row spacing and row direction in relative humidity profile within crop. The investigations were done under two field experiments. In first experiment, three wheat varieties *viz.*, HD 2967, PBW 550 and PBW 343 were sown under three row spacing *i.e.*, 15 cm, 22.5 cm and 30 cm on 25<sup>th</sup> November during both crop seasons. In second experiment three varieties of wheat *viz.*, HD 2967, PBW 550 and PBW 343 were sown under two row directions *viz.*, North-South and East-West on 25<sup>th</sup> November during both crop seasons. The experiments were laid out in Split Plot Design, by keeping varieties in main plot and row spacing or row direction in sub plot. Diurnal cycles of relative humidity within crop canopy were recorded. Relative humidity was highest in 15 cm row spacing followed by 22.5 cm and 30 cm. In 15 cm row spacing almost 4 per cent more relative humidity was recorded than 30 cm row spacing. Among different row directions, more relative humidity was recorded in North-south row direction. This study indicated that microclimate of a crop can be modified by changing crop geometry.

**Key Words :**

Crop geometry, Microclimate, Row spacing, Row direction, Relative humidity

**HOW TO CITE THIS ARTICLE :** Sandhu, Sarabjot Kaur and Dhaliwal, L.K. (2016). Crop geometry effects on relative humidity variation within wheat crop. *Asian J. Environ. Sci.*, 11(1): 94-101, DOI: 10.15740/HAS/AJES/11.1/94-101.

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