Indian J. Ecol. (2012) 39(2) : 255-257

Indian Journal of Ecology

Competitive Ability of Wheat Cultivars Against *Phalaris minor* (Retz.) in Relation to Crop Geometry

Neeraj Sharma and Tarundeep Kaur

Department of Agronomy, Punjab Agricultural University, Ludhiana 141 004, India
E-mail:tarundhaliwal@yahoo.com

Abstract: A field experiment was planned during *rabi* 2010-11 to study the effect of crop geometry and wheat varieties on growth and development of *Phalaris minor* as well as to study the competitive behaviour of different wheat varieties with *Phalaris minor*. The results revealed that bi-directional (22.5cm × 22.5cm) sowing and closer (15cm) sowing gave significantly higher grain yield i.e.56.5q and 52.5q/ha respectively, plant growth characteristics and yield attributes than normal (22.5cm) sowing. The plots sprayed with herbicide showed significantly less weed count and weed dry matter at harvest which resulted in increased grain yield in sprayed plots (57.85 q/ha) as compared to unsprayed plots (45.27 q/ha). Among wheat cultivars, PBW 621 and PBW 550 smothered *Phalaris minor* as compared to DBW 17 and WH 542 due to more leaf area index. Combination of bi-directional (22.5cm × 22.5cm) sowing along with wheat cultivars with more tillering capacity and leaf area index like PBW 621 and PBW 550 provide significantly higher smothering potential against *Phalaris minor*.

Keywords: Crop Geometry, Weed Control, Wheat (*Triticum aestivum* L.) Cultivars, *Phalaris minor*.