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Effect of Genotypes and Herbicide Combinations on Yield Attributes and Yield of Wheat

Sarita Rani[1*], Suresh Kumar[2], V.S. Hooda[3] and Jagdish Parshad[4]

[1, 3 &4]Department of Agronomy, 2Oil Seeds Section, Department of Genetics and Plant Breeding, CCS Haryana Agricultural University, Hisar, Haryana (125004), India
E-mail: srajotia@gmail.com

Abstract—*An experiment was conducted during 2014-15 and 2015-16 at research farm, CCS Haryana Agricultural University, Hisar, Haryana (India)to study effect of wheat genotypes and herbicide combinations on yield attributes and yield of wheat.The experiment was laid out in split-plot design with three replications. The treatments consisted of five wheat varietiesviz. WH 1105, HD 2967, DPW 621-50, WH 1124 and DBW 17 in main plots and six weed management practices in sub plotsviz., metribuzin (210 g ha^{-1}), metribuzin + clodinafop (150 + 45 g ha^{-1}), metribuzin + pinoxaden (150 + 40 g ha^{-1}), metribuzin + fenoxaprop (150 + 100 g ha^{-1}), weed free and weedy check. All the herbicide treatments were applied at 35 days after sowing of wheat. The highest number of effective tillers and grains per spike were observed in variety WH 1105 during both the years which remained at par with HD 2967 and DPW 621-50. Variety HD 2967 produced longest spike which differed significantly with varieties DPW 621-50, WH 1124 and DBW 17 during both the years.Wheat variety WH 1105 proved best among all the varieties by producing highest grain (5855 and 5401 kg ha^{-1} during 2014-15 and 2015-16, respectively), straw and biological yield and remained at par with WH 2967 and DPW 621-50 during both the years and differed significantly from variety WH 1124 and DBW 17 during both the years. Maximum and minimum values of all yield attributing characters were recorded with weed free plots and weedy check plots, respectively. Maximum and minimum values for grain, straw and biological yield were recorded under weed free plots and weedy check plots, respectively during both the years. Among herbicidal treatments, mixture of metribuzin with fenoxaprop remained statistically superior to weedy check plots as well as plots where metribuzin was applied alone.*

Key words*: Wheat, varieties, yield, metribuzin, clodinafop, pinoxaden, fenoxaprop.*

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