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Response of different wheat genotypes to different sowing time in relation to GDD accumulation

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ABSTRACT : An experiment on response of different wheat genotype to different sowing time in relation to GDD accumulation was carried out in *Rabi* season of 2010-11 at the research field of Wheat Research Unit, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (M.S.). The treatments consisted of two sowing dates 45th MW, 48th MW and twenty wheat genotypes AKDW-4021, AKDW-2997-16, AKDW-4749, AKDW-4750, AKDW-4132-2, AKDW-3931-2, HD-2189, HIDW-295, NIAW-34, AKAW-4627, LOK-1, MACS -1967, AKAW-3997, AKAW-4073, AKAW-4210-6, AKAW-4493, AKAW-4705, AKAW–4731, AKAW–4636 and AKAW-4739. The experiment was laid out in a Factorial Randomized Blocked Design with three replications. The soil was clayey with pH 7.89 containing N-206.00, P-15.86 and K- 303.43 kg ha^{-1} value after harvest. The growth, yield attributes and yield observations showed significant increase when wheat crop was sown at 45th MW than 48th MW. Grain yield obtained was significantly higher at 45th MW sowing. Wheat crop sown at 48th MW required significantly lower cumulative growing degree days (GDD) and helio thermal units for completion of reproductive phase than 45th MW sown crop. Correlation studies reveal that correlation between straw yield and bright sunshine hours found to be significant showing the negative correlation and correlation between straw yield and relative humidity was observed to be significant showing the positive correlation. Sowing of wheat crop at 45th meteorological week was recorded most economical under different date of sowing condition.Out of genotypes, AKAW- 4647 was superior over others in respect of tillers m^{-2}, chlorophyll content $plant^{-1}$, dry matter accumulation $plant^{-1}$, number of grains $earhead^{-1}$, yield per day per plant (g), rate of grain filling, grain yield (q ha^{-1}), straw yield (q ha^{-1}) and test weight.

KEY **W**ORDS : Genotypes, Sowing time, Wheat

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