CHANGES IN LEAF AREA, ASSIMILATE ACCUMULATION AND PARTITIONING OF WHEAT VARIETIES PLANTED ON DIFFERENT DATES

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ABSTRACT

Knowledge of leaf area is important for physiological and agronomical studies. Leaf area affects photosynthates production and assimilate accumulation and partitioning. Usually, wheat is planted later than optimal planting time after harvesting rice or sugarcane. The aim of this research was to quantify the reduction in leaf area and assimilate accumulation and partitioning of wheat varieties if planting is delayed. An experiment was conducted at Malakdher New Developmental Farm, Agricultural University Peshawar, Pakistan during 1997-98 using three wheat varieties (Bakhtawar-92, Inqilab-91, and BNS) planted on six dates from 15th October to 30th December with 15 days interval. Planting dates and varieties significantly affected days to heading, leaf area, stem weight and biomass yield, while spike weight was affected only by planting dates. Wheat planted on 15th October produced maximum leaf area, stem weight, spike weight, and biomass yield. Reduction in the above parameters was observed when planting was delayed. Variety Inqilab-91 produced maximum biomass yield (6655.7 kg ha^{-1}). However, the varieties differed non significantly for stem weight and spike weight. Bakhtawar-92 took maximum days to heading. It can be concluded that all the three varieties could be planted up to 30th October without drastic reduction in yield in the agroecology of Peshawar valley, NWFP, Pakistan.