

OPTIMIZING SOWING TIME AND CUTTING MANAGEMENT FOR BARLEY TO OBTAIN FODDER AND GRAIN SIMULTANEOUSLY

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Executive Summary

To overcome continuous food and feed shortage, cereal crops need to be grown for dual purpose. Sowing time and cutting management both are important to obtain the balanced green fodder and grain yield simultaneously. Based on the above issue, a field experiment was conducted in *Rabi*, 2021 season at agronomy field of Sher-e Bangla Agricultural University having five sowing times (30 October, 15 November, 30 November, 15 December and 30 December) and four cutting schedules (uncut, cutting at Zadoks growth stage, ZGS 19, cutting at ZGS29 and ZGS31) with three replications to find out the optimum sowing time and cutting stage and their effect on growth and yield for dual purpose barley. Among sowing times, 30 October was sowing recorded significantly higher plant height, dry matter accumulation, effective tiller, fertile spikelet, spike length, 1000-grain weight, grain yield, straw yield, biological yield and green fodder yield uncut (control) and cut for fodder conditions. Cutting of barley for green fodder purpose had reduced significantly all growth parameters, yield attributes and yield compared to uncut barley. Among cutting schedules, minimum and maximum reduction in growth parameters, yield attributes and yield were recorded with cutting of fodder at ZGS19 (vegetative growth stage) and ZGS31 (stem elongation stage), respectively compared to uncut. However, cutting of barley for fodder purpose at ZGS29 (tillering stage) was found in a balance between green fodder and grain yield simultaneously. Therefore, the study suggested that early sowing (30 October) can compensate the reduction in barley yield due to fodder cutting in dual purpose barley and cutting at maximum tillering stage (ZGS29) can balance having optimum green fodder yield and grain yield simultaneously.

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