

[P3] Abiotic Stress for Crop Production

Thu. Sep 9, 2021 12:15 PM - 2:00 PM Room 3 (Poster) (Abiotic Stress for Crop Production)

12:15 PM - 1:00 PM

[P3-01] Influence of Low Temperature at Booting Stage on Growth and Yield in Fall and Spring Sown Wheat

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Due to global climate change, winter temperatures are getting warmer and, in addition, low-temperature damage often occurs in late March and early April in overwintering crops. In this study, we compared changes in fall and spring sown wheat (cv. Jokyeong) cultivated in Jinju, Korea in 2017-2018 season (no low temperature damage) and 2018-2019 season (low temperature outbreak at booting stage). In the growth and yield-components analysis, the total biomass of fall sown wheat was 13,694 kg·ha⁻¹ in 2018 and 20,461 kg·ha⁻¹ in 2019. Grain yield was 5,370 kg·ha⁻¹ in 2018 and 4,918 kg·ha⁻¹ in 2019. In case of spring sown, it was found that the total biomass and grain yield was higher in 2018-2019 season by 6,513 kg·ha⁻¹ and 3,411 kg·ha⁻¹, respectively, than in 2017-2018 season. Protein content showed different results, crude protein content of grains was higher in the fall sown wheat in the 2018-2019 season, however, the content was higher in spring sown wheat in 2017-2018 season. In the case of abnormal low temperature damage occurs at booting stage, spring sowing was better in terms of the grain yield, but protein content was better in fall sowing.

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