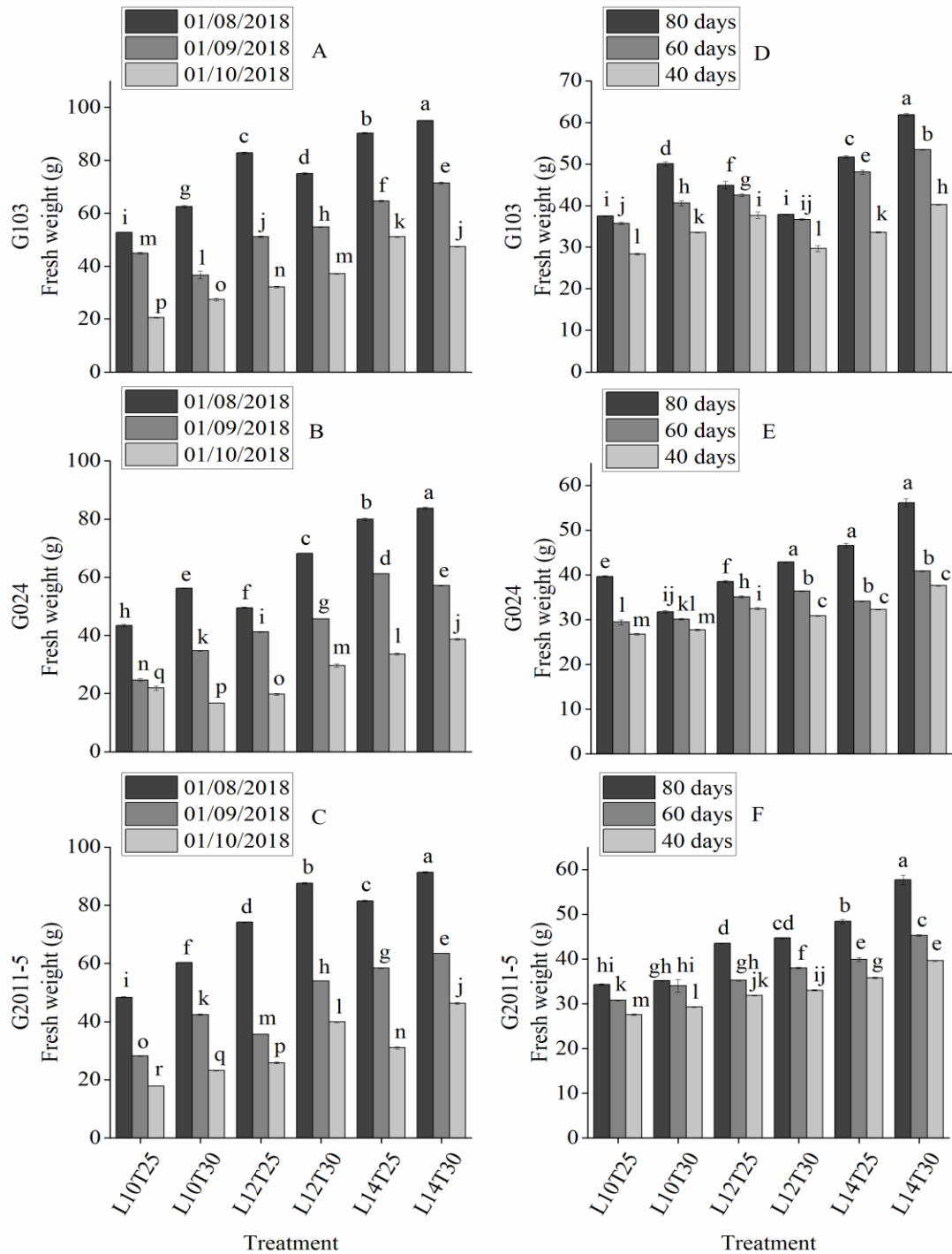
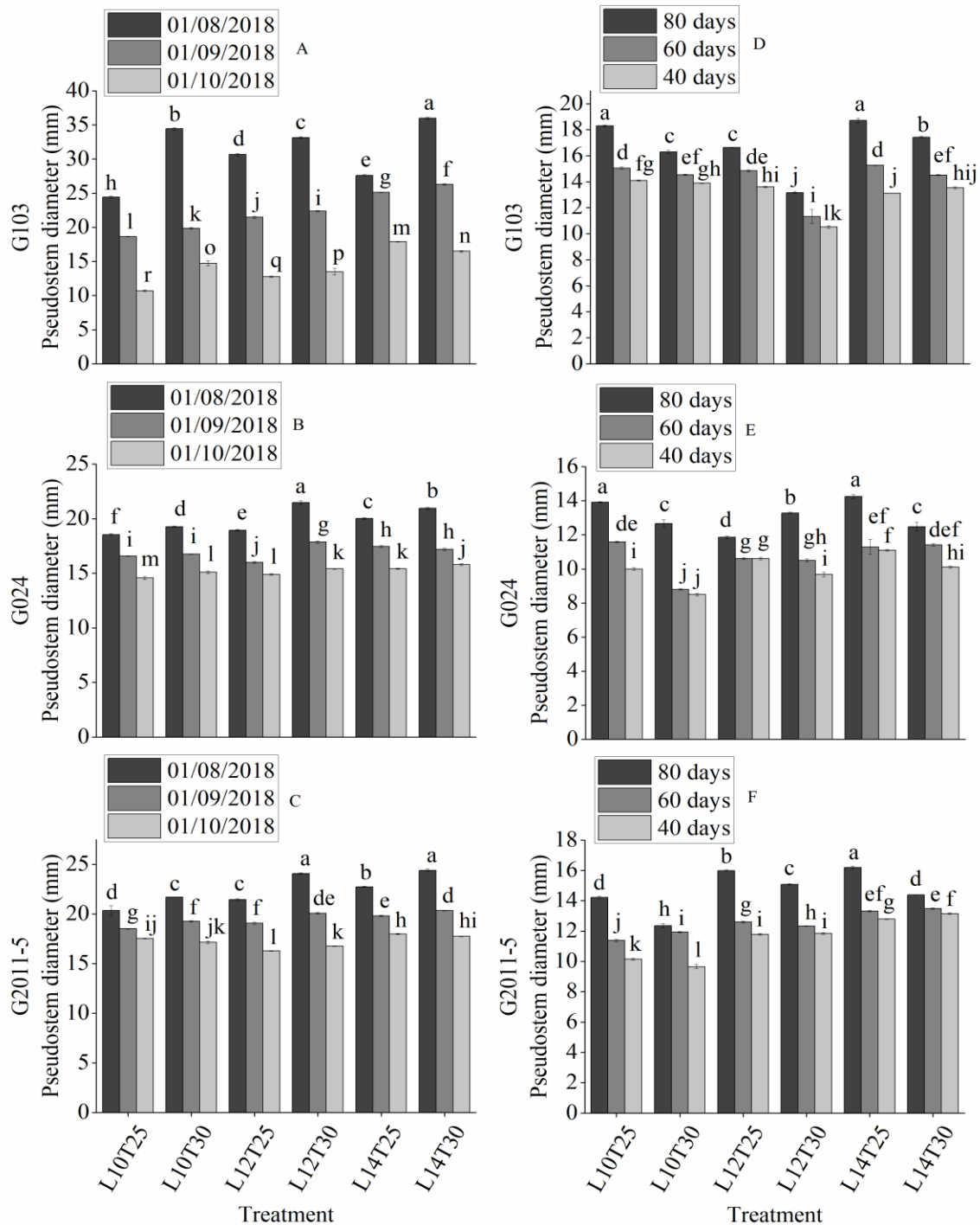


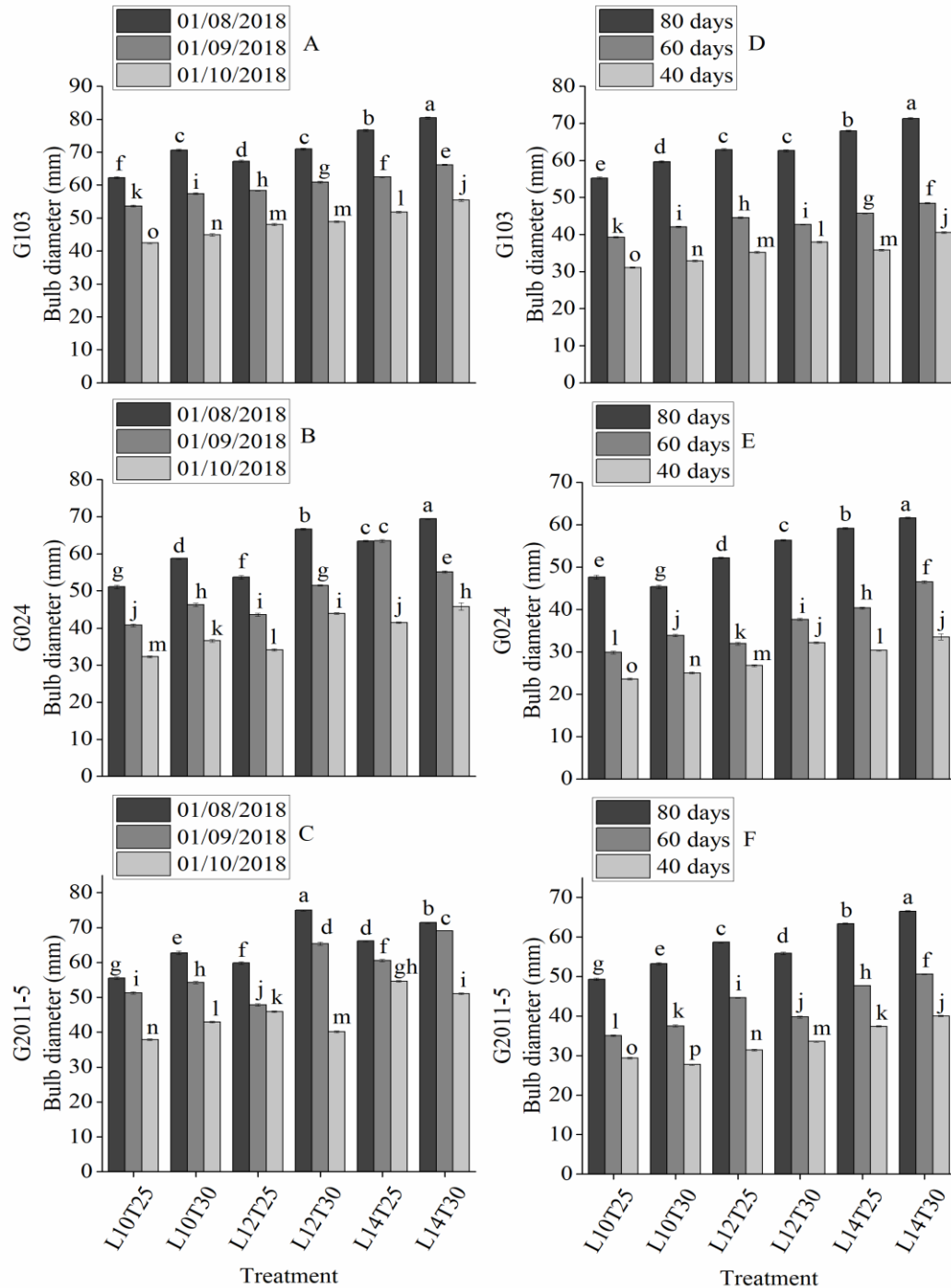
**Figure S1.** Plant standing height (cm) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD



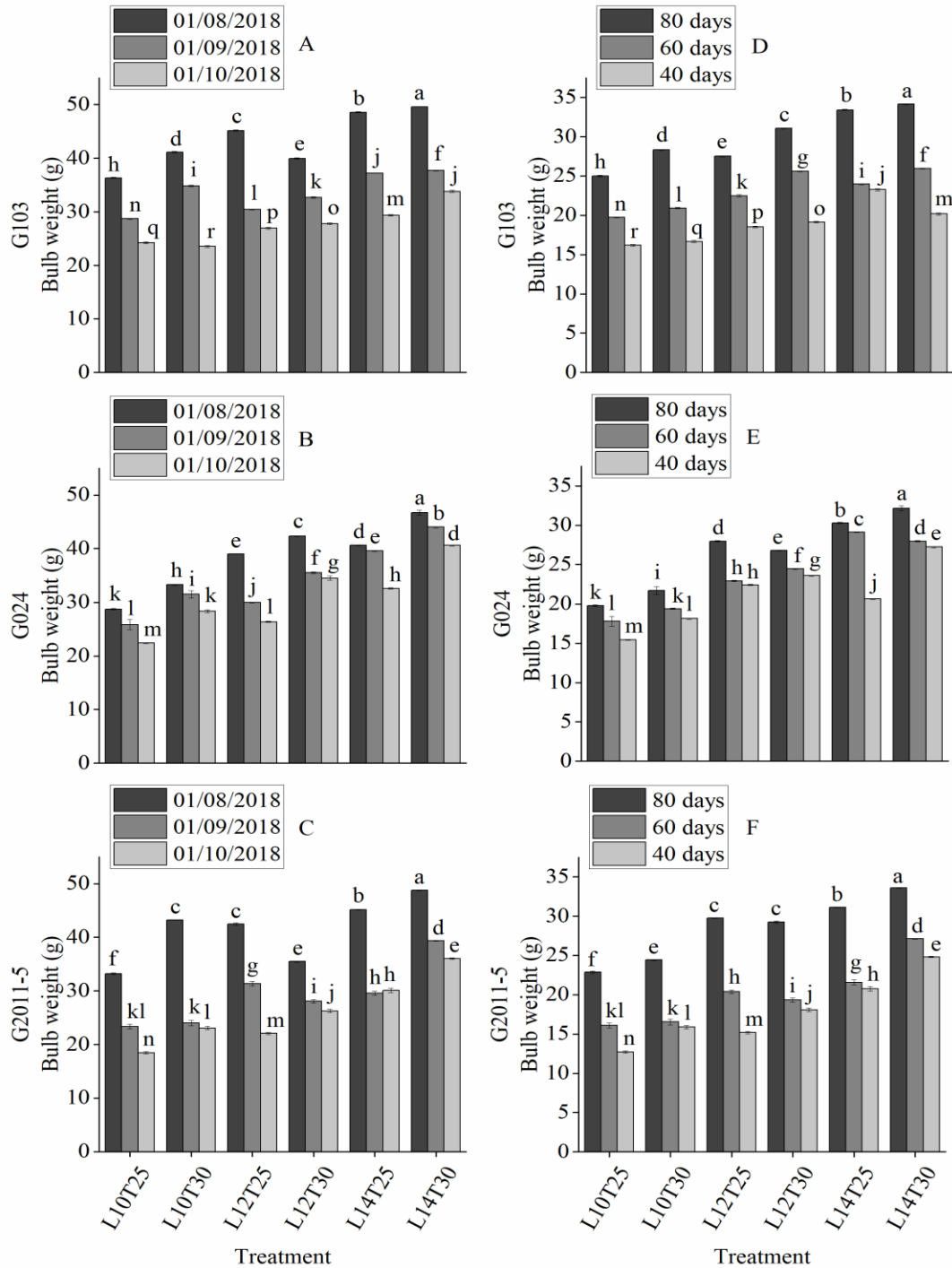
**Figure S2.** Fresh weight (g) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD



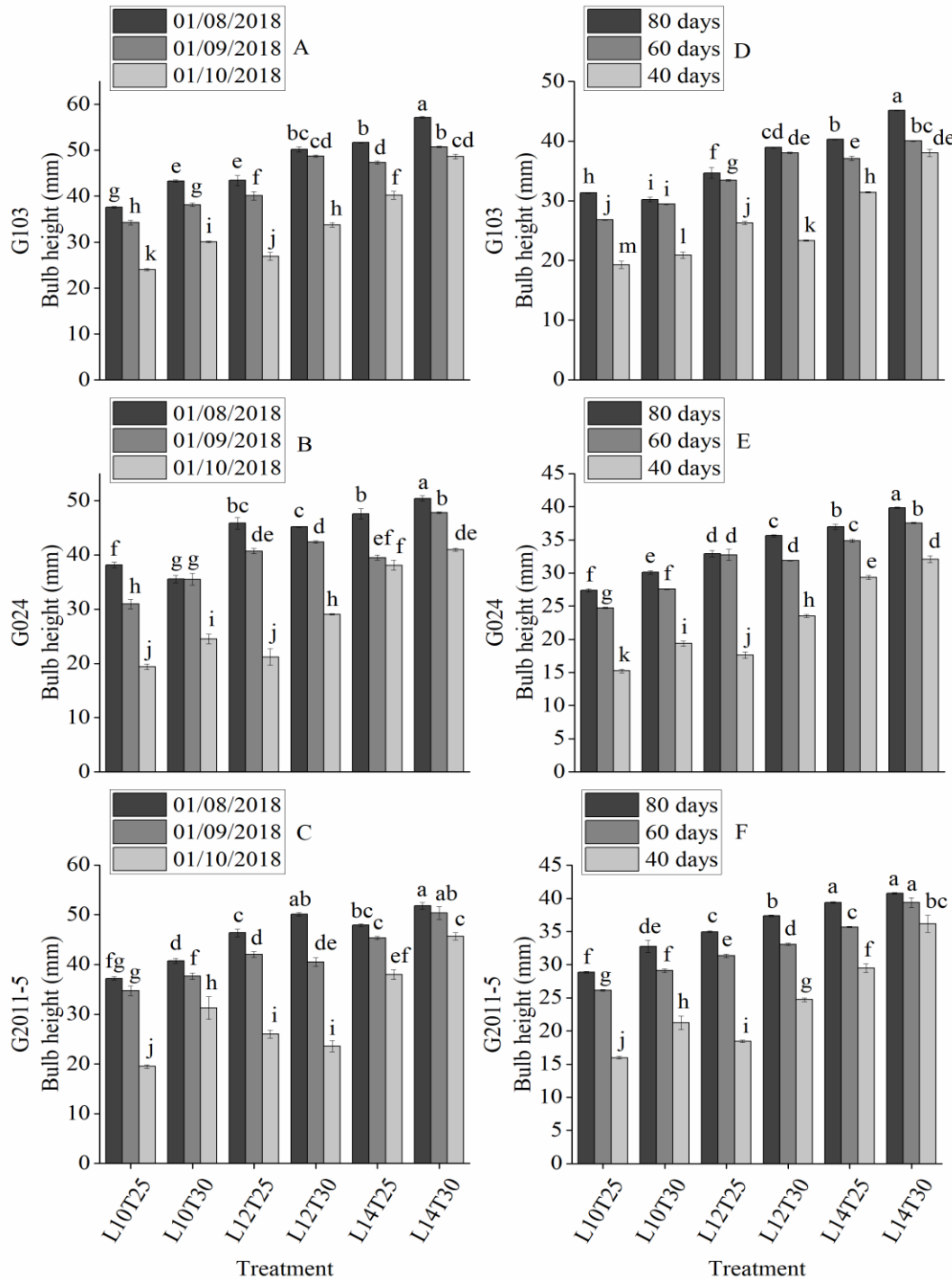
**Figure S3.** Pseudostem diameter (mm) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD



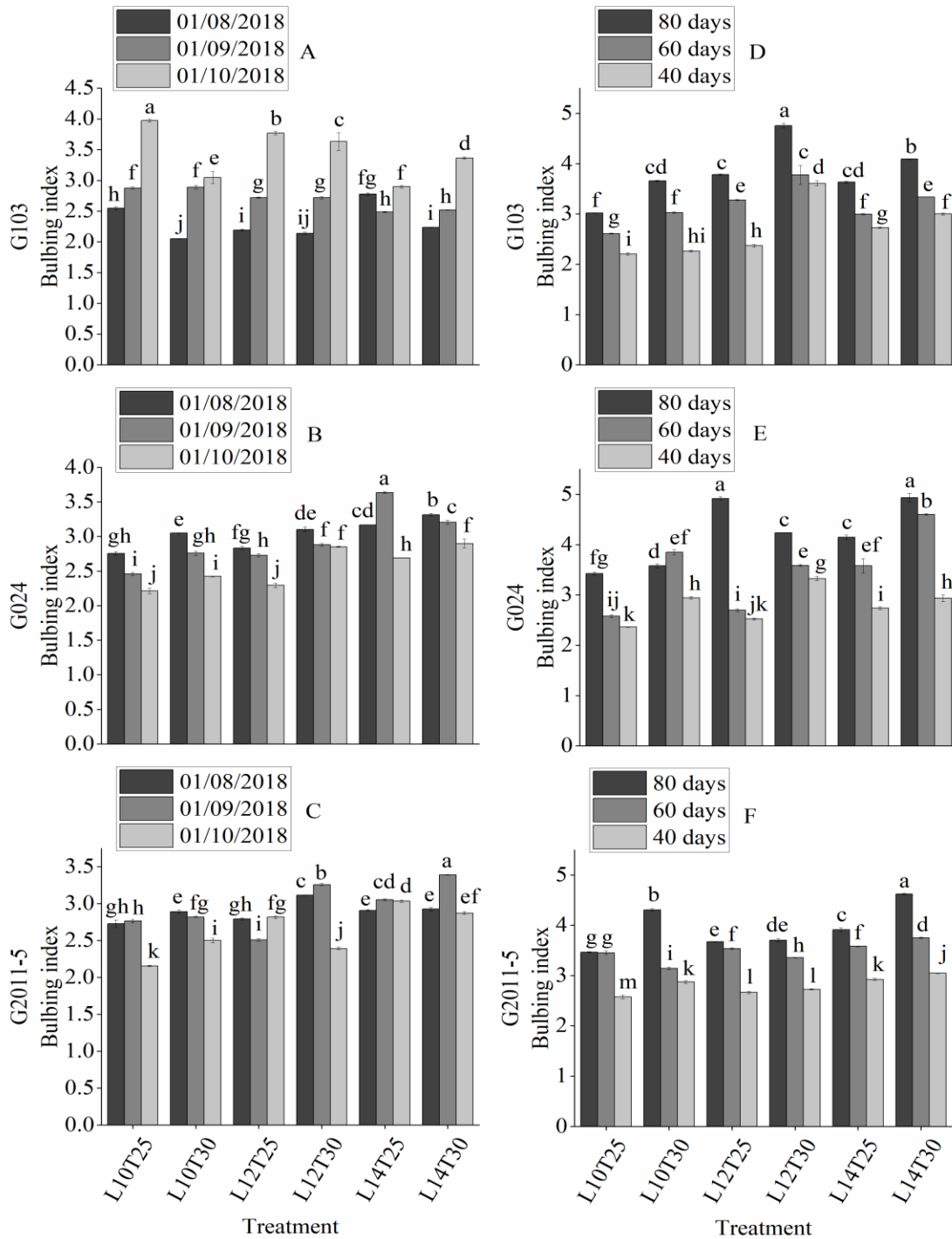
**Figure S4.** Bulb diameter (mm) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD



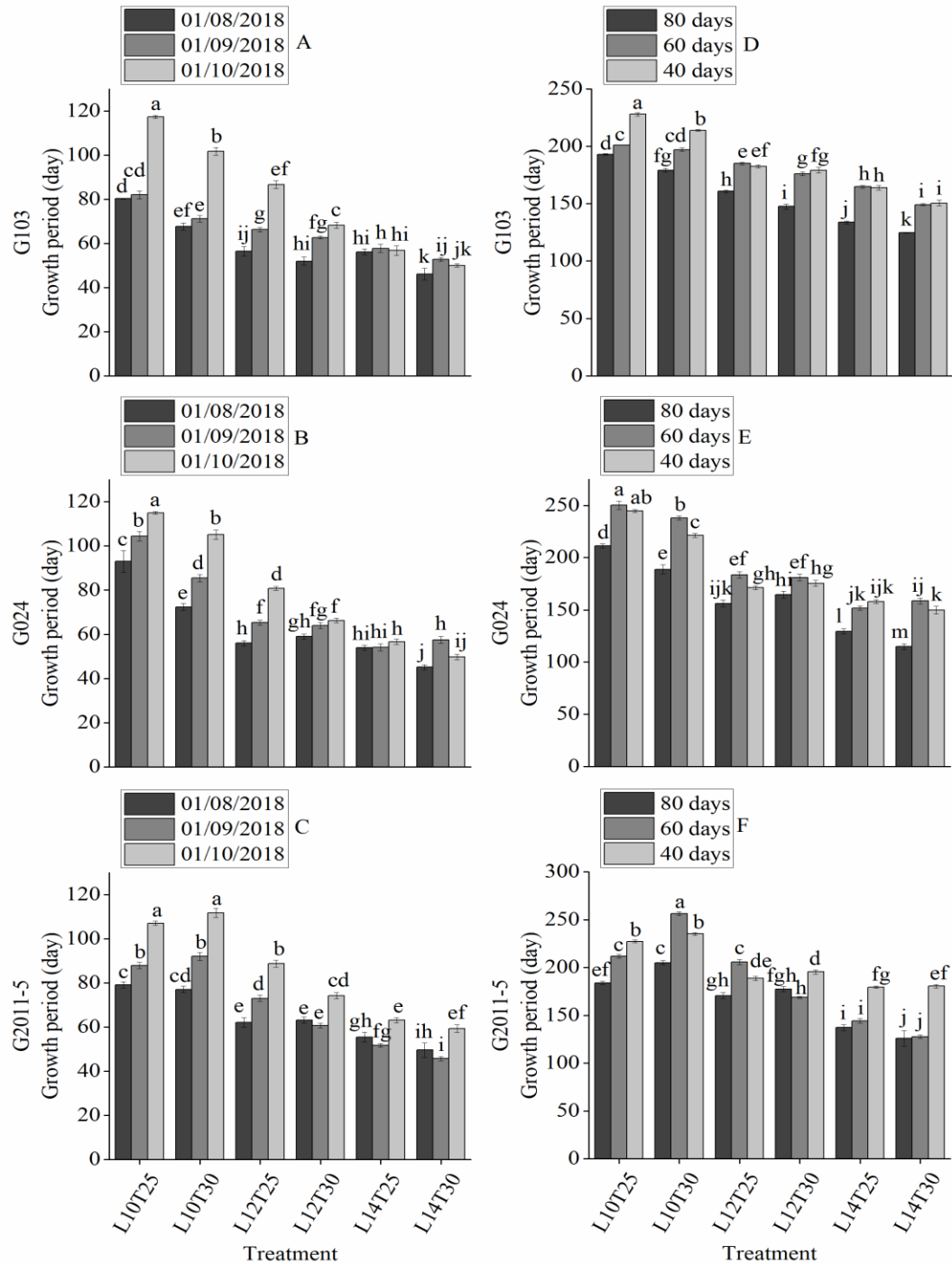
**Figure S5.** Bulb weight (g) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD



**Figure S6.** Bulb height (mm) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD

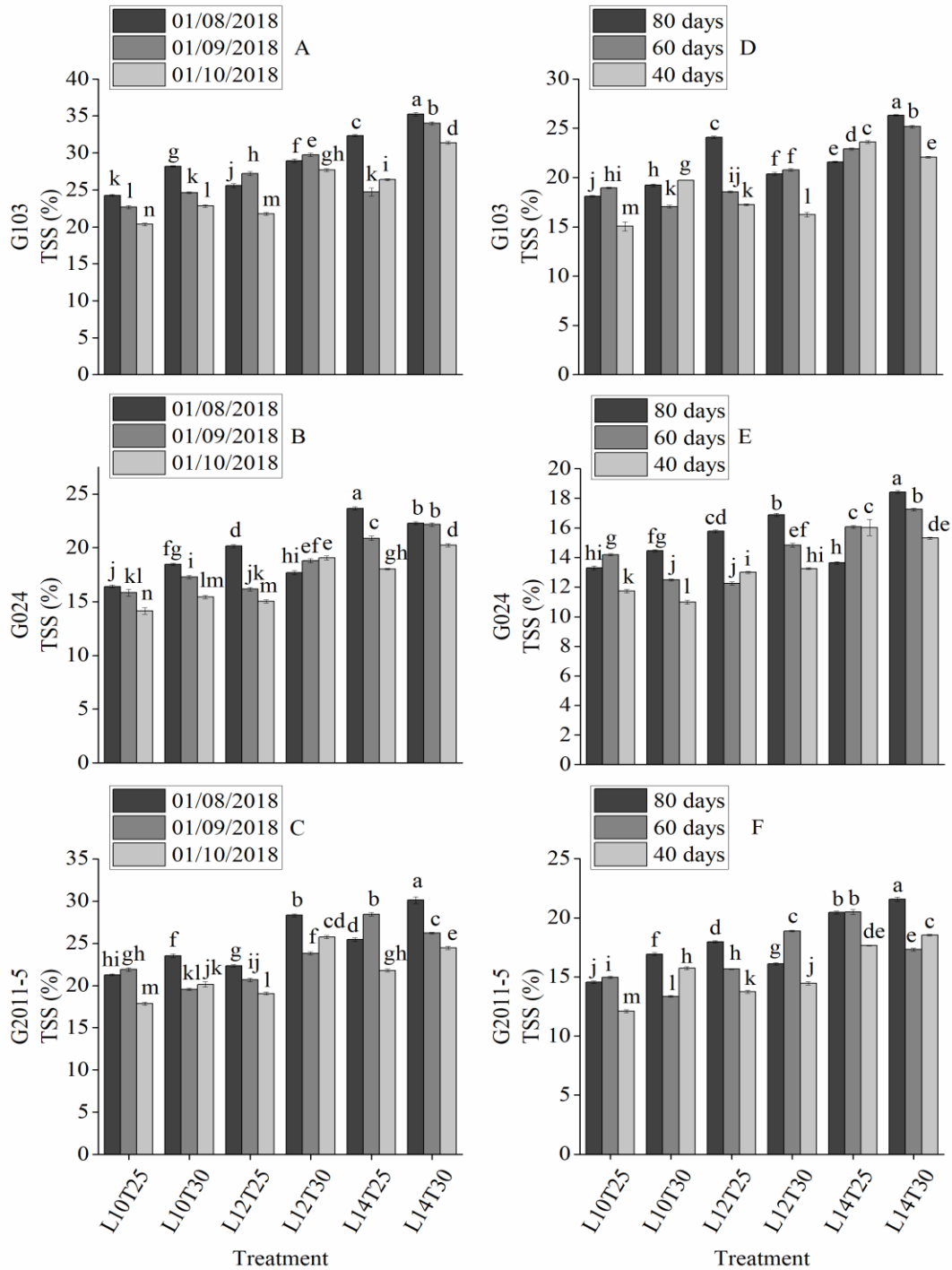


**Figure S7.** Bulbing index of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD

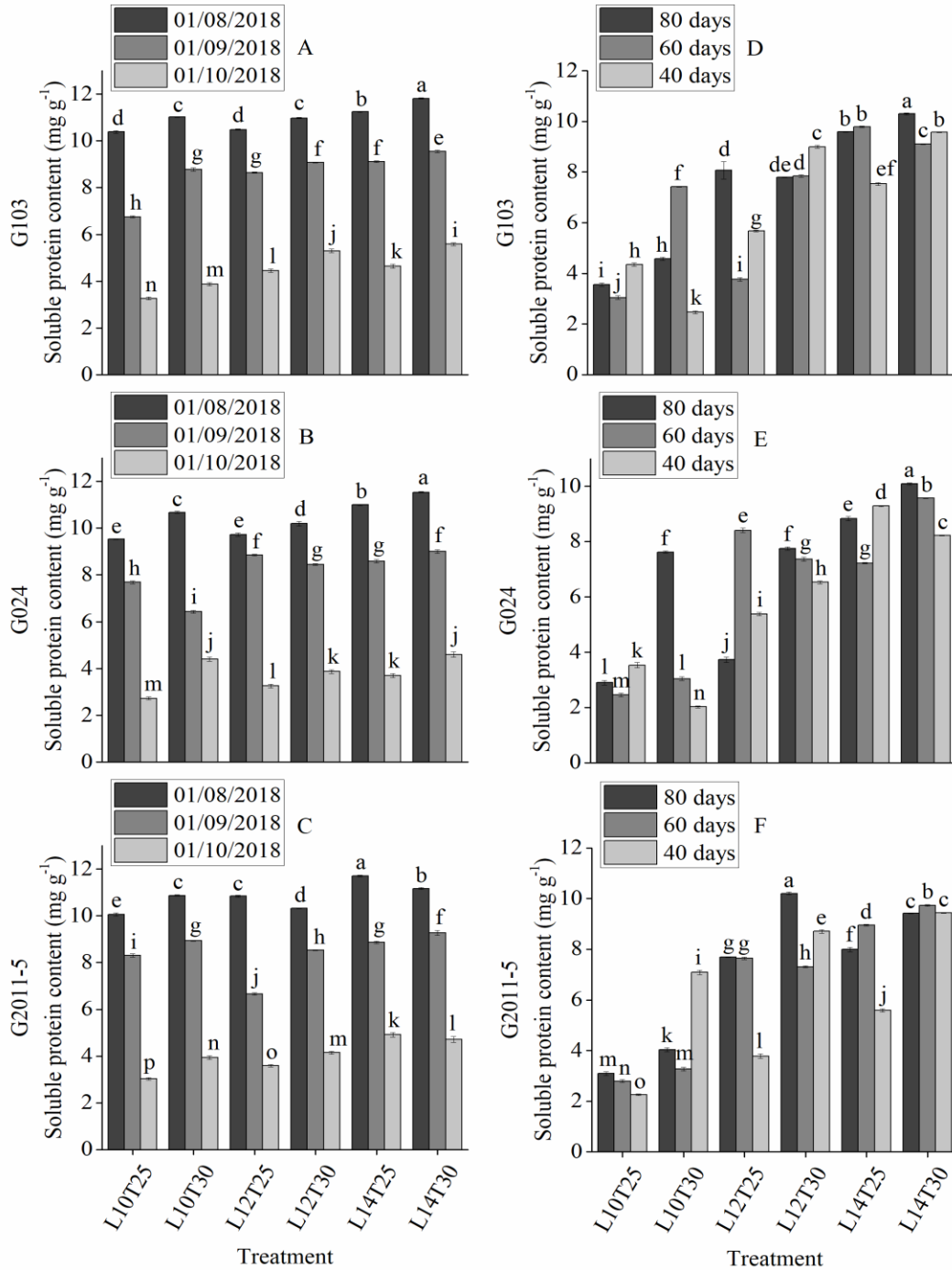


**Figure S8.** Growth period (day) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD

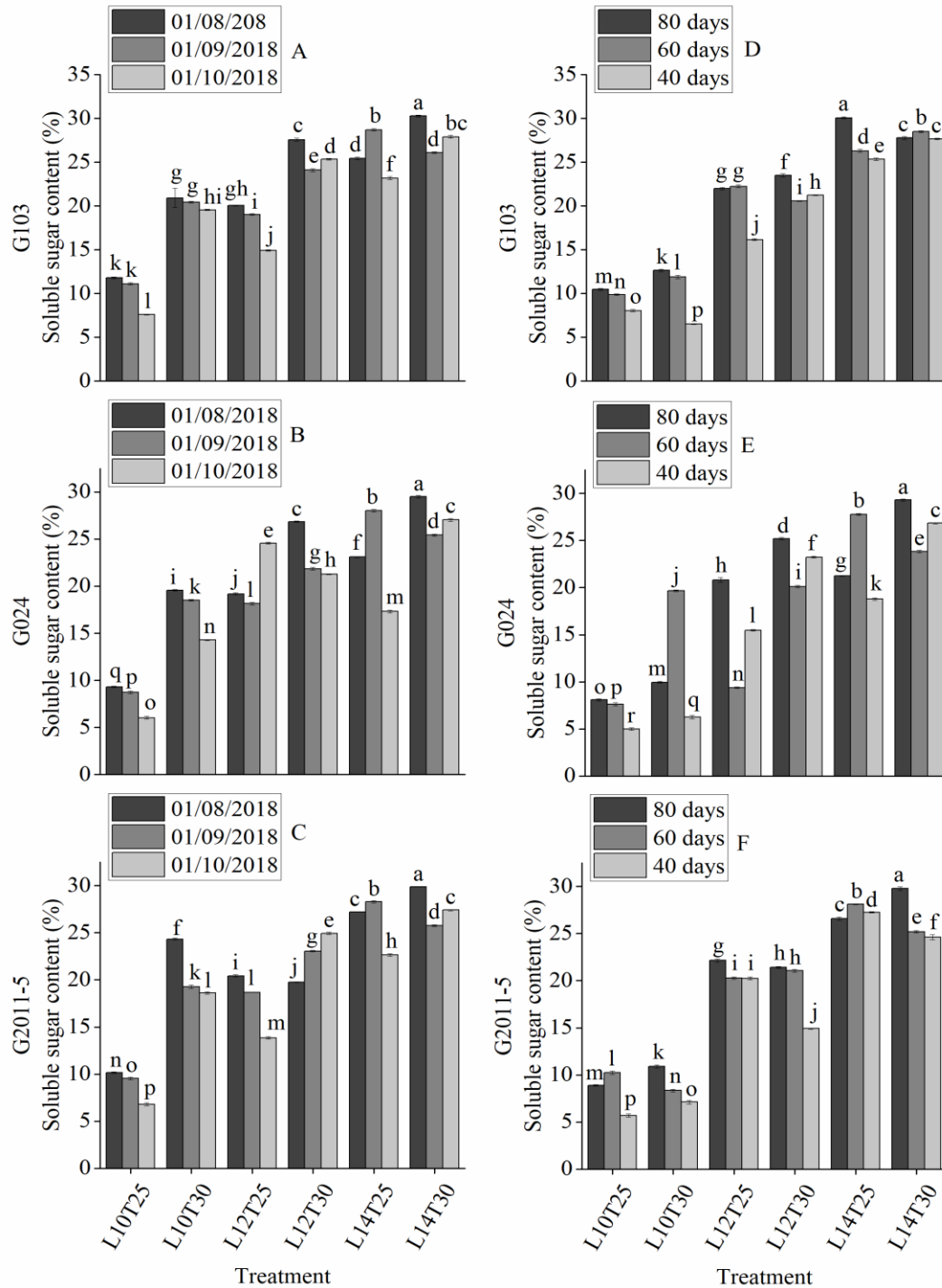




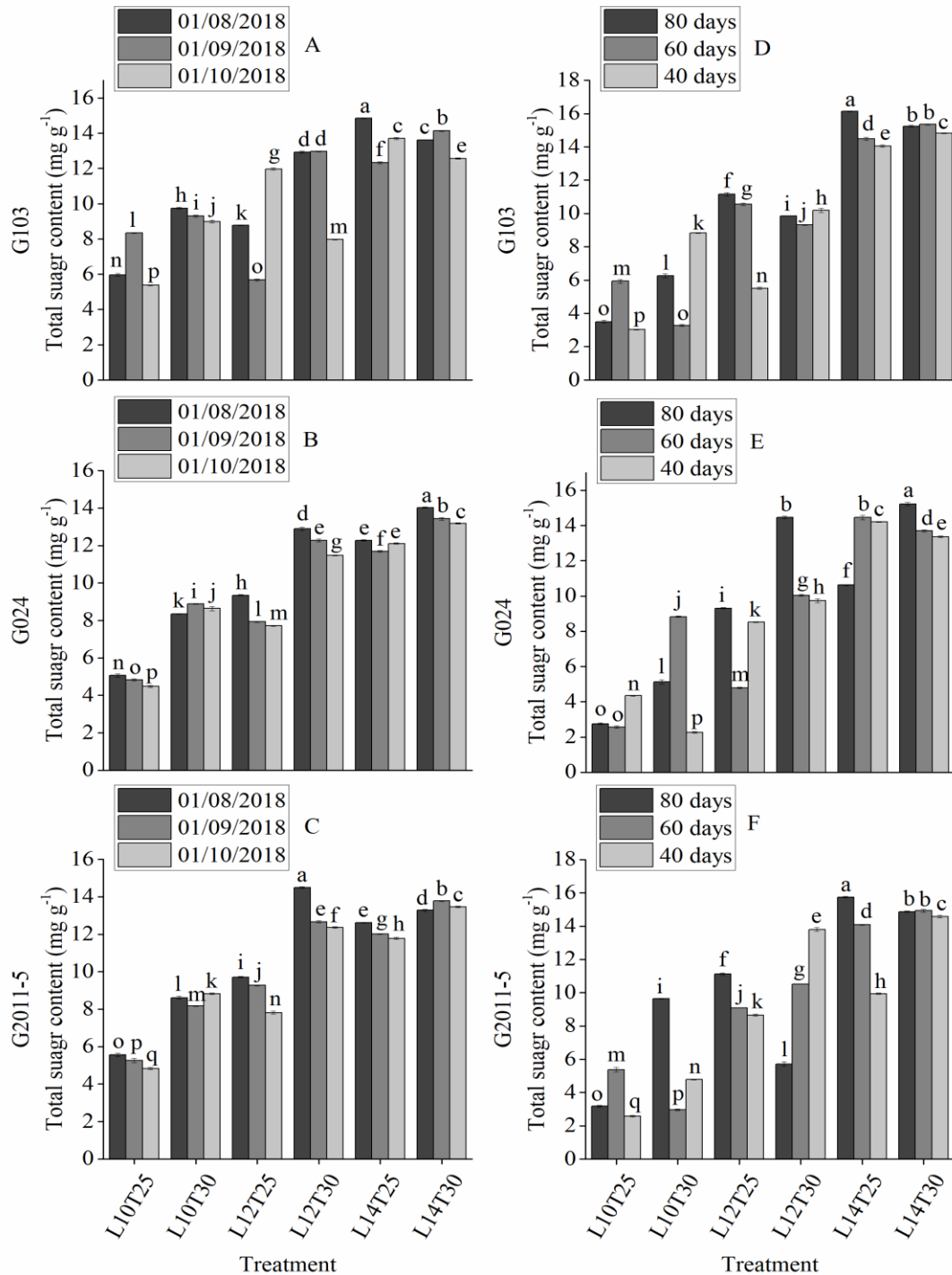
**Figure S9.** TSS (%) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at P<0.05 (ANOVA and Tukey HSD test); means±SD



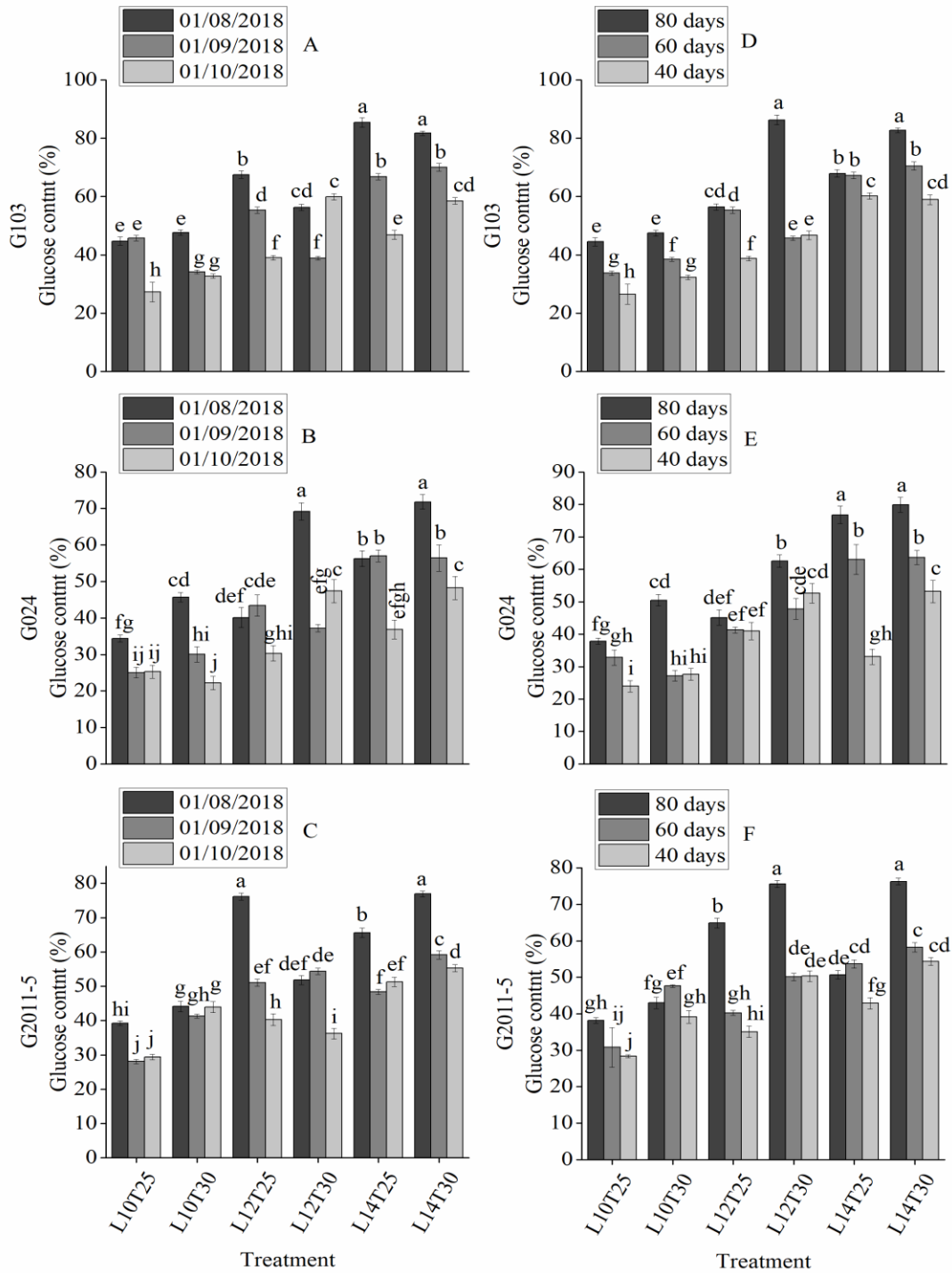
**Figure S10.** Soluble protein content ( $\text{mg g}^{-1}$ ) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD



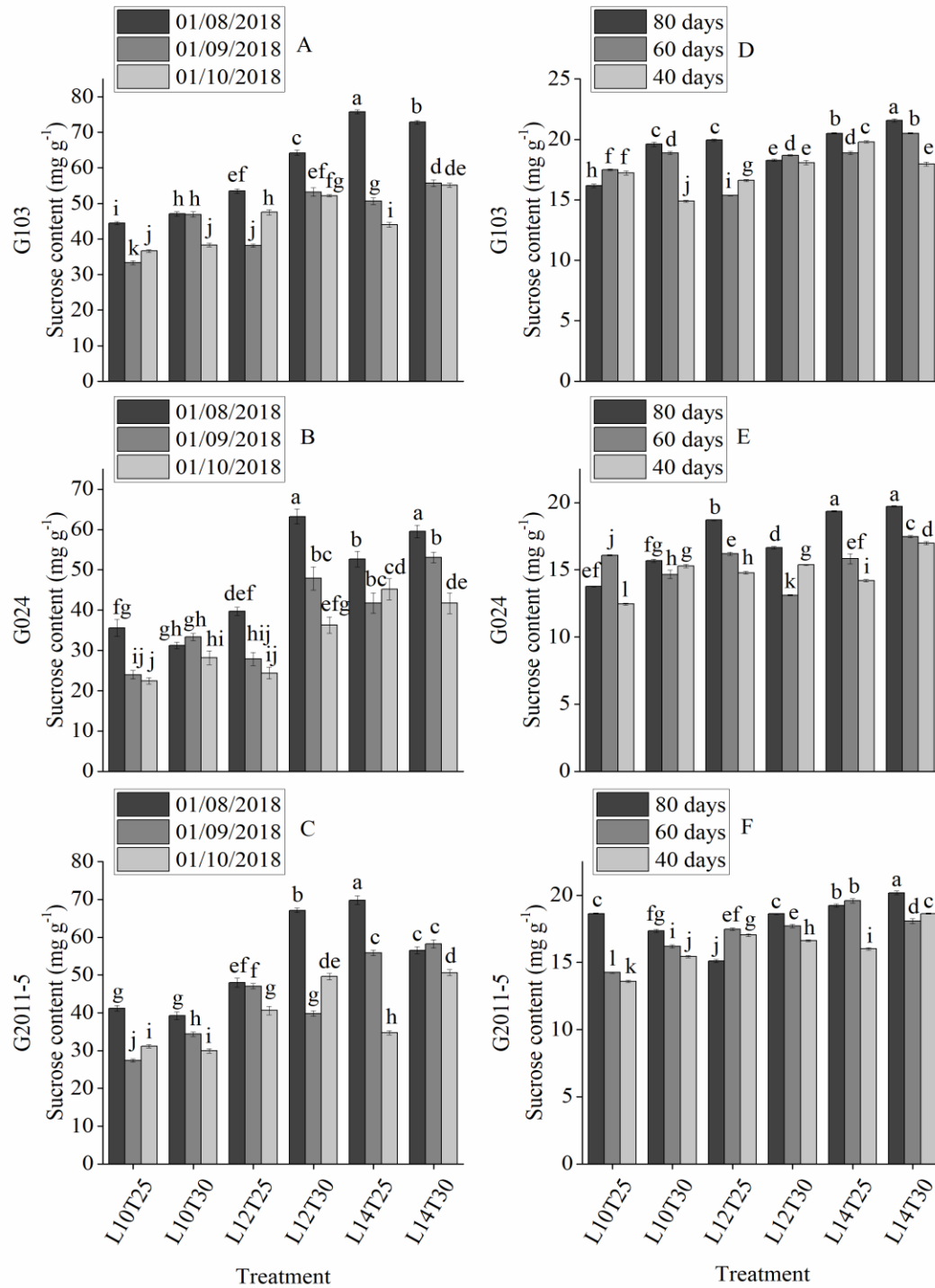
**Figure S11.** Soluble sugar content (%) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means $\pm$ SD



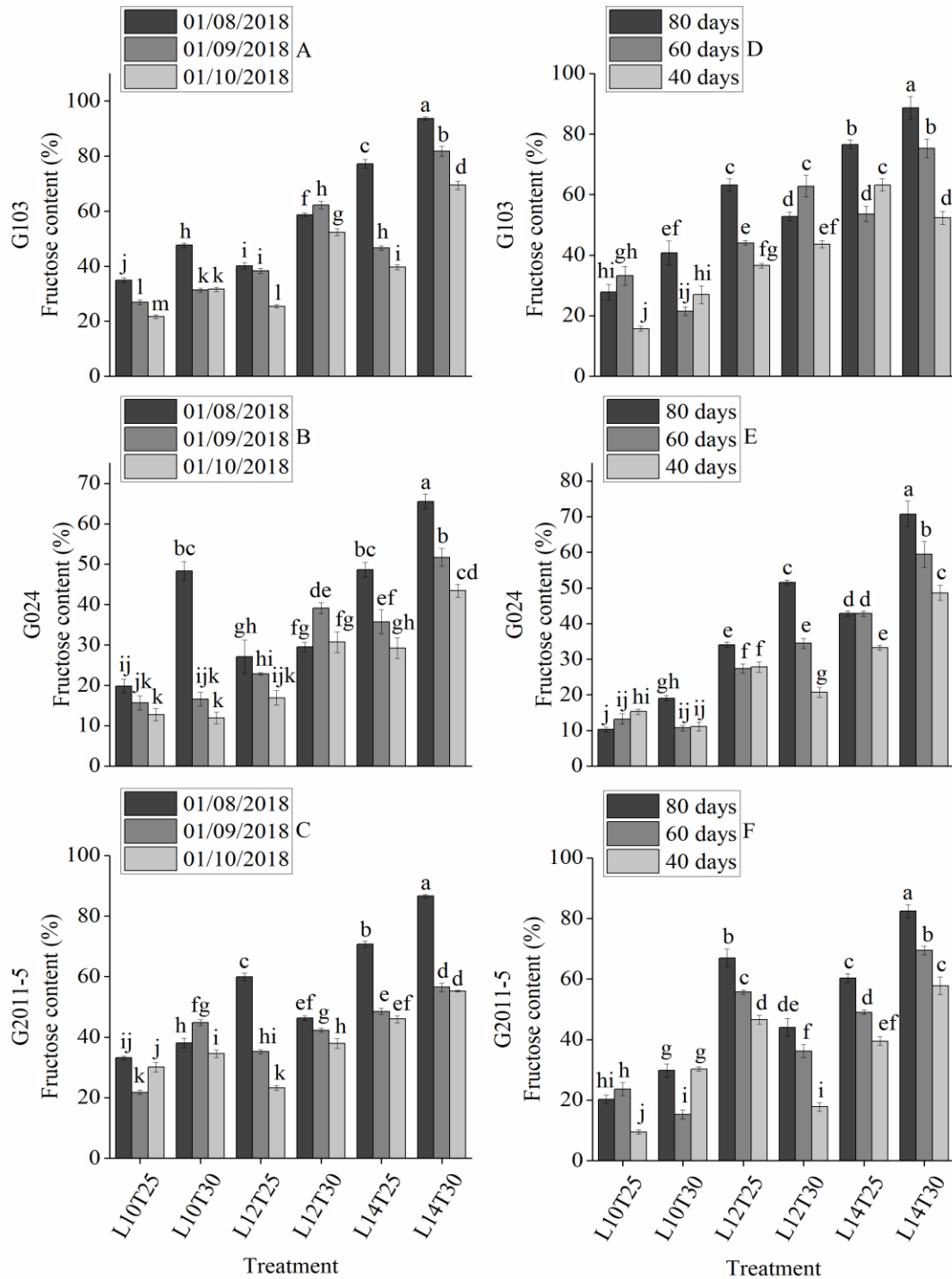
**Figure S12.** Total sugar content ( $\text{mg g}^{-1}$ ) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means $\pm$ SD



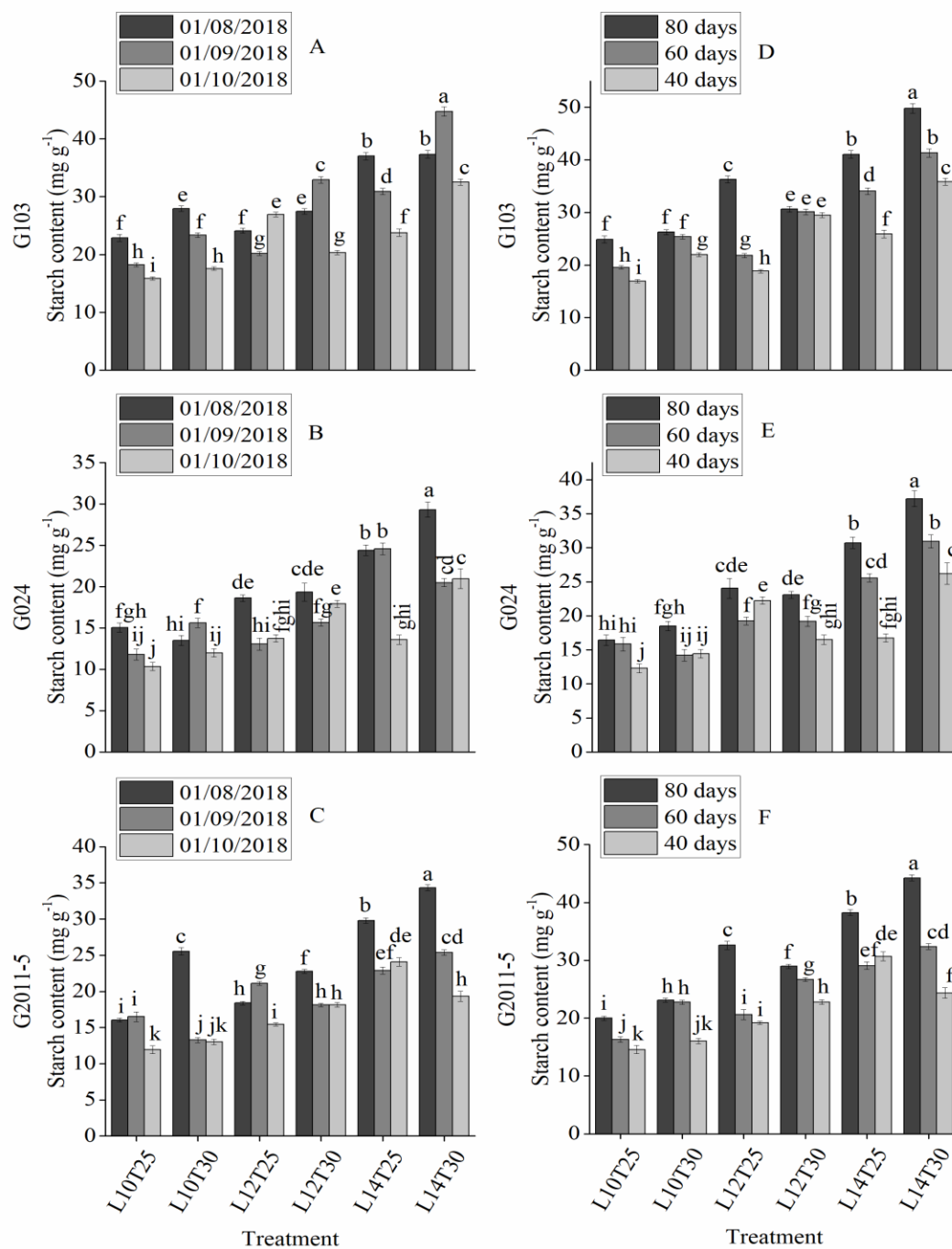
**Figure S13.** Glucose content (%) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD



**Figure S14.** Sucrose content (mg g<sup>-1</sup>) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at P<0.05 (ANOVA and Tukey HSD test); means±SD

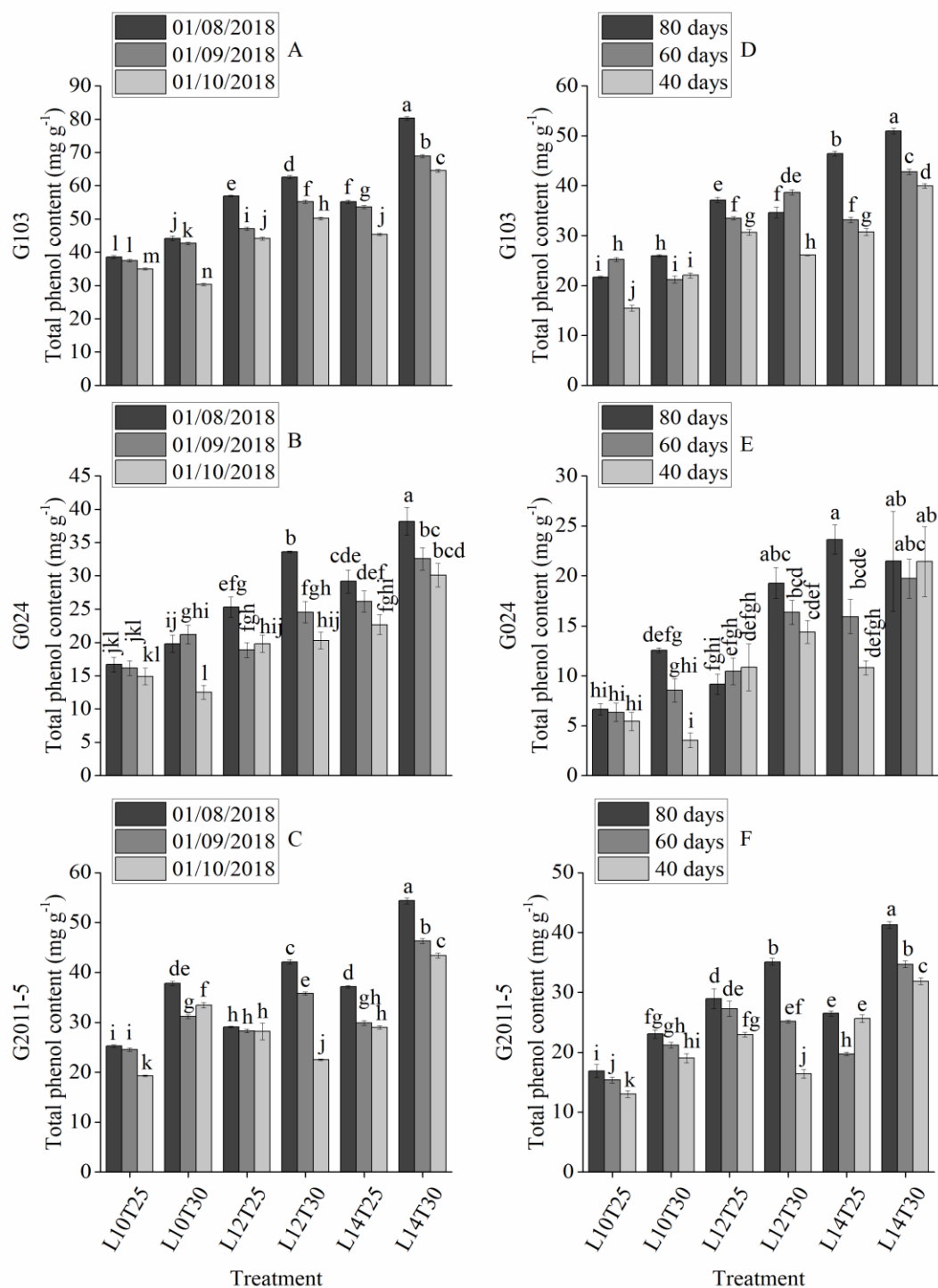


**Figure S15.** Fructose content (%) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD

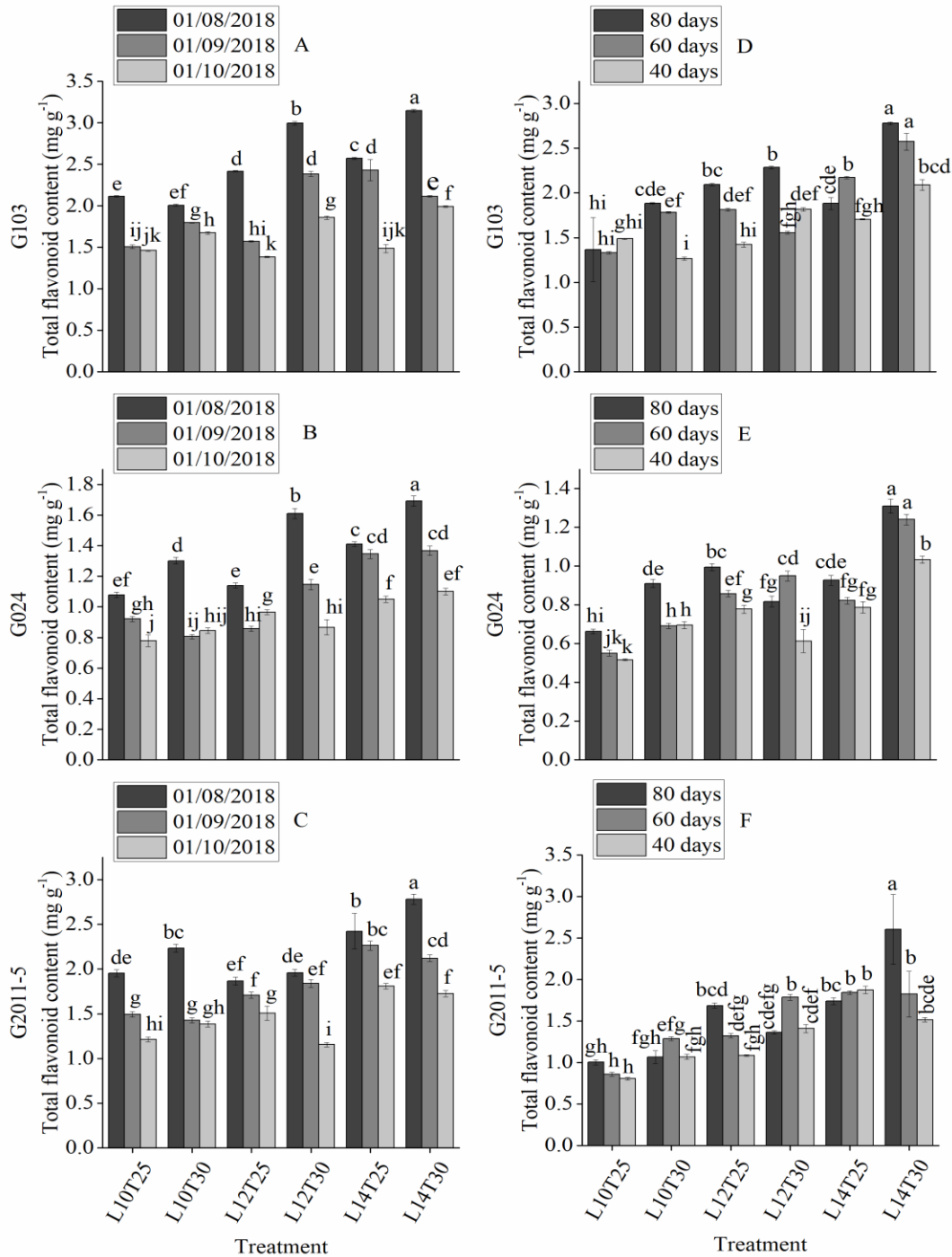


**Figure S16.** Starch content (mg g<sup>-1</sup>) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at P<0.05 (ANOVA and Tukey HSD test); means±SD





**Figure S17.** Total phenol content ( $\text{mg g}^{-1}$ ) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means $\pm$ SD



**Figure S18.** Total flavonoid content ( $\text{mg g}^{-1}$ ) of cvs. G103 (A), G024 (B) and G2011-5 (C) sown on 1<sup>st</sup> August, 1<sup>st</sup> September and 1<sup>st</sup> October; cvs. G103 (D), G024 (E) and G2011-5 (F)- 80 days after planting, 60 days after planting and 40 days after planting. Different letters indicate significant differences between sowing date, plant age, photoperiod and temperature at  $P < 0.05$  (ANOVA and Tukey HSD test); means  $\pm$  SD