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Yield and industrial quality of two soybean cultivars in Villa Mercedes (San Luis-Argentina), according to the planting date

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With objective to analyze variation in oil and protein content of two soybean cultivars, from different maturity groups (MG), in function of planting date (PD), a research of industrial quality of soybean under irrigation was carried out, in Villa Mercedes, San Luis (Argentina). Two cultivars (NS4955 and NS5258) of different MG ---IV long and V short--- were sown using a randomized block design in split plot, with four replications on two PD (Oct 23 and Nov 23), during the growing season 2014/15. Grain yield (GY) was determined and the oil (OC) and protein (PC) contents were measure as percentages of dry matter of harvested grain. Variables were analyzed through ANOVA, Tukey test (α=0.05) and Multiple Regression (Stepwise). Average GY (4.361kg ha^{-1}) and average PC (40.9%) showed highly significant differences, only for PD, while OC average (21.4%) showed significant differences (α = 0.05) for both PD and Cultivar. No *PDxCultivar* interaction was detected for any variable. At the earliest planting date (Oct 23), the highest values of GY and OC, were obtained for both cultivars. The average PC on second PD (Nov 23) showed highest values (41.5% vs. 40.2%) for both cultivars. A negative correlation (-0.47) was observed between protein and oil. The GY presented a positive correlation with OC (0.25) and negative with PC (-0.82). Stepwise procedure of the Multiple Regression showed that PC (R^2=0.22) is the variable which better explain the variations of OC, while PD (R^2=0.75) is who explains mainly the PC values.