
YIELD COMPONENTS OF COMMON BEAN (*Phaseolus vulgaris* L.) AS INFLUENCED BY PLANTING DATE

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Bean production in the Central-Western Region of Brazil has three distinct planting dates. The first (S) being in September or October during the spring or first rains. Because of the heavy rains and problem with harvesting good quality seeds this is a season of lesser importance. The second (A) being in January or February and is autumn or lesser rainy season with a dry season harvest thus as a more important for bean production. The third date (W) is in May or June during the dry winter months and must be irrigated.

Two field experiments were sown at the National Research Center for Rice and Bean, Capivara Farm, using three cultivars (C_1 = Pintado - determinate growth habit; C_2 = Rico 23 - indeterminate but erect growth habit and C_3 = IPA 7419 - indeterminate and prostrated growth habit) and two dates of planting (November and January). Notes were taken on climatic conditions (Figure 1) yield and yield components (Figure 2). Fertilizer applied was 20 kg N/ha as ammonium sulphate, 80 kg P_2O_5 /ha as triple superphosphate and 30 kg K_2O /ha as potassium chloride at the time of planting.

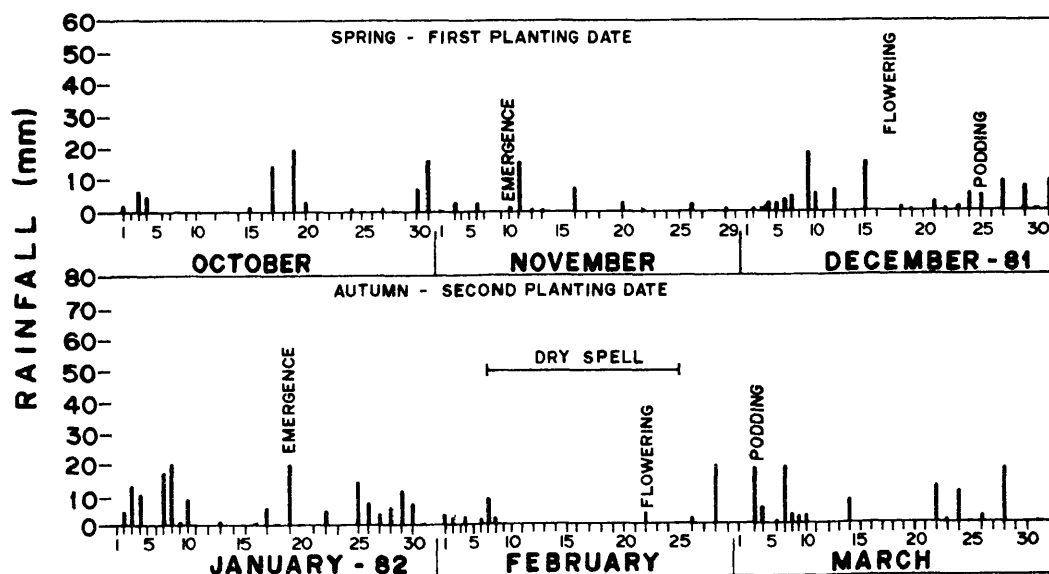


Figure 1 - Rainfall distribution from October/81 to March/82 - Capivara Farm and phenological data.

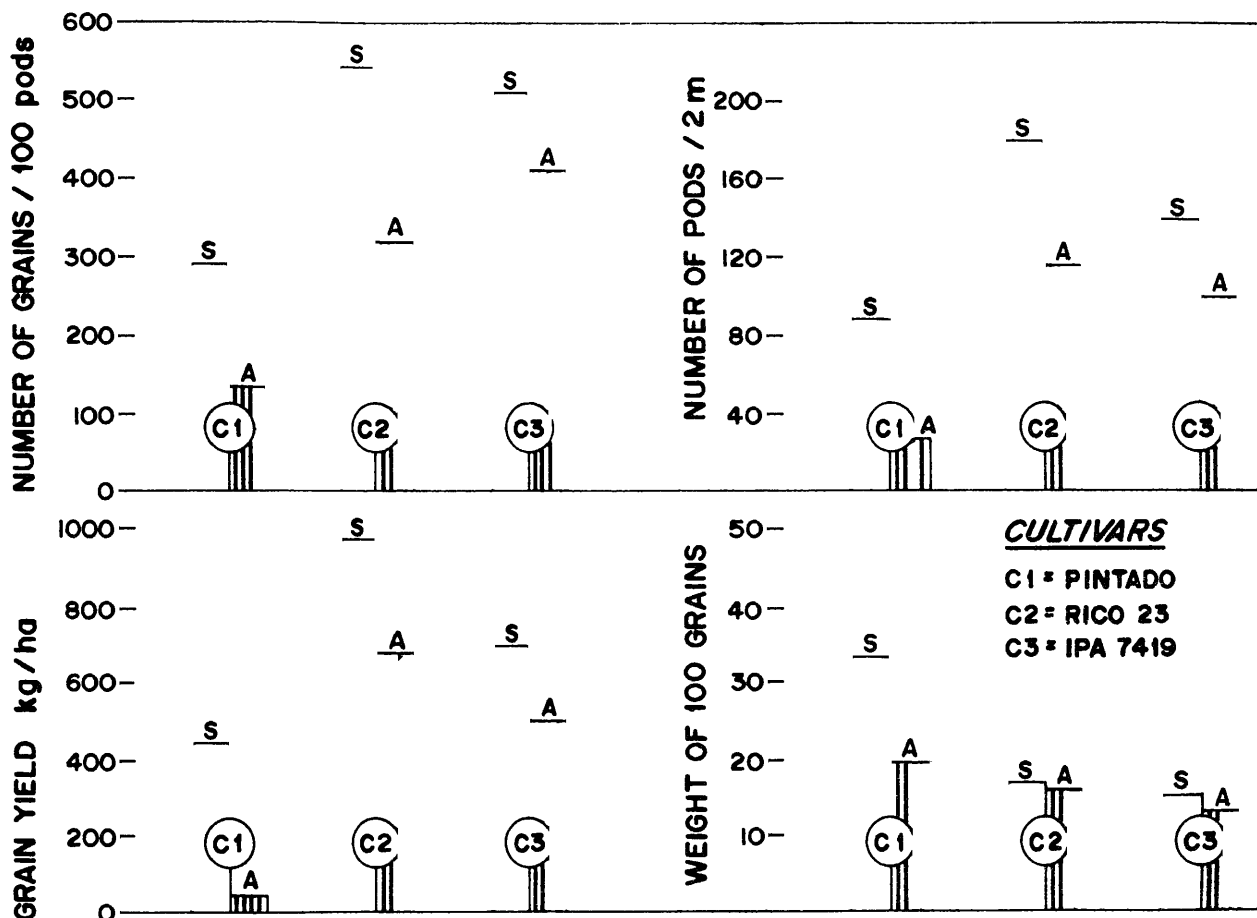


Figure 2 - Number of grains/100 pods, number of pods/2m, grain yield kg/ha and weight of 100 grains during Spring (S) and Autumn (A) seasons.

Yield, weight of 100 grains, number of grains/100 pods and number of pods/2m were variable for the two seasons. For the yield and yield components, all three cultivars showed better results in the spring season than in the autumn season even though the quality of the seeds was worse in the former one. The reason for the higher yields is associated with the rainfall distribution which was much better during the first season than during the second one.

The yield of cultivar one during the second date of planting was very low due to its short period of flowering and the coincidence with the dry spell.