EFFECT OF REMOVAL OF FLOWERS AND PODS ON THE YIELD AND ITS COMPONENTS IN Phaseolus vulgaris L.

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The effect of different patterns manual removal of reproductive structures during flowering was studied in Phaseolus vulgaris L. cv. Cacahuate 72, of determinate habit (type I), and cv. Michoacan 12-A-3, of indeterminate bush habit (type II), planted under greenhouse conditions at three dates (5-XII-84; 4-I-85 and 4-II-85). The variables studied were seed yield and its components. The experimental structure was a completely random design.

RESULTS: In both varieties and for the three planting dates, the manual removal of reproductive structures did not modify yield (weight with 10% humidity and number seeds completed their development nor number of normal pods. However, such removal did increase the number of nodes on the main stem, number of total nodes per plant, and dry weight of root, stems (main stem plus branches), leaves blades plus petioles) and biomass. Therefore, the removal of reproductive structures influences the allocation of dry matter and promotes branching.

YIELD AND ITS COMPONENTS IN Phaseolus vulgaris L. AS INFLUENCED BY PLANTING DATES

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As in many crops, planting dates in beans area one of the agricultural practices aimed at a higher yield. The objective of the present work was to determine the effect of the planting date on the yield and its components in P. vulgaris cv. Canario 107 (of determinate growth habit) and cv. Michoacan 12-A-3 bush type. Planting was done in Iguala, State of Guerrero (18°25' N, 99°35'W, 731 m altitude). The plots were fertilized before planting with 40-40-0 NPK. Planting dates were June 28, July 12 and July 26 at 13.3 plants per m². The plants were grown rainfed. The experimental design was a splitplot.

RESULTS: In both varieties the duration of the plant cycle and of the flowering period shortened with delay in the planting date. The seed yield, the number of pods per square meter and the size of seeds diminished with delayed planting date. This response of the crop was related to a lower rainfall and temperature (lower "heat units"). The number of well developed seeds per pod remained constant, indicating that there was no influence of the planting date on the rate of seed abortion. Yields were 202.0, 142.3 and 48.0 g/m² for cv. Michoacan 12-A-3 and 93.1, 73.1 and 26.6 g/m² for cv. Canario 107 for the June 28, July 12 and July 26 dates, respectively. The yield differences between the two varieties were associated mainly with differences in the number of seeds and pods per square meter.