

P. vulgaris x P. coccineus subsp. coccineus crosses . Moreover, the results seem to indicate that there might be higher levels of recombination in the P. vulgaris x P. coccineus subsp. polyanthus crosses .

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EFFECTS OF BETWEEN-ROW SPACING, CULTIVATION, AND GENOTYPE ON GROWTH AND YIELD OF BLACK BEANS.

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Two black bean (Phaseolus vulgaris L.) genotypes, '70001' and 'Strain 39', were grown at 76, 61, and 46 cm between-row spacings. Cultivation treatments were an uncultivated check and a single cultivation at either the first trifoliolate leaf, anthesis, or pod elongation growth stage. Root weight, shoot weight, and shoot:root ratio decreased linearly as between-row spacing decreased. Biological yield increased linearly as between-row spacing decreased, but seed yield and harvest index did not show significant responses to spacing. Root weight and biological yield gave significant quadratic responses to the 3 cultivation treatments. Other yield and growth parameters were not affected by cultivation. The line '70001' had significantly larger root and shoot weights and lodged less when compared with 'Strain 39'. Results suggest that a single shallow cultivation may be used for black beans grown in narrow rows, provided it is done no later than anthesis.