EFFECT OF THE COOKING ON PHYSICOCHEMICAL AND STARCH DIGESTIBILITY PROPERTIES OF TWO VARIETIES OF COMMON BEAN (*PHASEOLUS VULGARIS* L.) GROWN UNDER DIFFERENT WATER REGIMES.

ABSTRACT

Growing and cooking conditions influence the quality and nutritional value of beans. The objective of this research was to determine the effect of cooking on digestibility and physicochemical properties of two varieties of bean grown under different water regimes. Black 8025 and Pinto Durango varieties were grown in irrigated and temporal (rain fed) conditions in two locations of Guanajuato, Mexico. The pasting profiles of the cooked beans showed a significant decrease in viscosity. The enthalpy of the raw and cooked beans ranged from 2.75 to 3.95 and 0.62 to 0.97 J/g, respectively. The percentage of rapidly digestible starch and slowly digestible starch increased, while the percentage of resistant starch was lower in cooked samples. Black 8025 beans had lower glycemic index than Pinto Durango, but no significant difference ($P < 0.05$) was noted between water regimes. The variety of bean had a more pronounced effect on digestibility properties than the water regime.

http://www.sciencedirect.com/science/article/pii/S0308814611006509

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Revista: Food Chemistry. Volume 129, Issue 2, pages 358 -365.