

Title Functional properties of three common bean (*Phaseolus vulgaris*) cultivars stored under accelerated conditions followed by extrusion

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### **Abstract**

Flor de Mayo M38, Pinto Villa and Bayo Victoria beans were stored under accelerated conditions for aging at 40 °C and 60% RH for 3 months. Following adjustment of moisture to 24, 26 and 28 g water/100 g solids, they were extruded at 165, 185 and 205 °C at a constant screw speed. Water absorption index (WAI) and bulk density of extrudates were measured. Feed humidity did not affect the evaluated properties. Storage conditions, temperature and cultivar were the parameters that influenced the evaluated properties. Higher value for WAI was obtained in aged beans, independently of cultivar, temperature and feed humidity used. The bulk density was similar for aged and not aged beans, but at the highest temperature it was lower for aged beans. This fact indicates that bean storing and interaction of temperature have important influence on the final quality of extrudates.