

Title Shelf life and quality of baby corn (*Zea Mays* L.) as affected by storage at low temperature in polybags with different gauges and ventilations

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Abstract

Baby com is a highly perishable product because of its high respiration rate. An inexpensive way to delay senescence is through use of modified atmospheric packaging (MAP) in combination with low temperature. The availability of wide range offood grade polymeric films with different permeabilities has served the interest in packaging in sealed bags, whi Ie they are also useful as consumer packs. An experiment was conducted to enhance shelf life by storing baby com at 3°C in LDPE bags (polybags) of 150, 200 and 300 gauge with different ventilations (0, 0.2, 0.4 and 0.6 %) at College of Agriculture, Hyderabad. Spoilage was delayed and shelf life was extended by 38 days over control and 8 days over the second best treatment when stored in unventilated 150 gauge polybags which had maximum shelf life of 63 days. PLW was low, while TSS, reducing sugars, total sugars, proteins and ascorbic acid were high with superior organoleptic score in these cobs. Highest PLW, low TSS, reducing sugars and shelf life were recorded in control. Spoilage was 100% in control after 31st day, while it was 43% in unventilated 150 gauge polybags even after the 63rd day. The higher shelf life and quality of cobs in polybags was due to reduced permeability of the polybags for oxygen and accumulation of carbon dioxide and the resultant retarded respiration rate. However, spoilage was more and shelf life less when stored in 300 gauge polybags followed by 200 gauge polybags.