

Title Vacuum cooling and storage temperature influence the quality of stored mung bean sprouts.
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Abstract

The objective of this research was to evaluate the effects of vacuum cooling and temperature on the quality and storage life of mung bean sprouts (*Vigna radiata*). Sprouts in micro-perforated bags were either not precooled or vacuum cooled to 9, 6, or 3 deg C, and stored for 7 days at 1, 3, or 6 deg C. Vacuum-cooled bean sprouts lost more weight than sprouts not precooled, and the weight loss was greater when the sprouts were cooled to lower temperatures. However, the total loss never exceeded 5% and no apparent signs of shrivelling were observed. Vacuum cooling resulted in greater product freshness after 4 days of storage, but the effect was nonsignificant after 7 days. Storage temperature had greater influence on bean sprout quality than did cooling temperature, with greater freshness and whiter hypocotyls at the lower temperatures. However, blackening of cotyledons increased as the storage temperature decreased.