

Effects of Pre-cooling Treatments on the Post-harvested
Pod Color of Vegetable Soybean¹

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Abstract

The commercial quality of vegetable soybean was mainly determined by the pod color. Pre-cooling treatment of pods for preservation of bright green color and preventing the yellowing of pod before freezing processing was required. For selecting suitable pre-cooling treatment methods, experiment on pre-cooling methods were carried out in the field by using the Kaohsiung Selection 1, 205 and Ryokkoh varieties as materials in the fall crop season of 1990 and the spring crop season of 1991.

Results showed that pod color was changed to yellow dramatically and L value was unchanged for the non-precooling pods. Spraying water on pods and drenching pods into water can slightly prevent the yellowing of pods. Best precooling effects of pods drenched in 5 and 15 C cold water and by freezing were found. The bright green color in pods can be maintained and yellowing of pods can be prevented for 7 hours and the L values can be reduced by above-mentioned methods. For practical and economical purposes, the best precooling method for preventing the yellowing of vegetable soybean pods is by drenching pods into 15 C cold water after pod threshing and hrevesting.

Key words : Vegetable soybean, Pre-cooling, Quality.

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