



Effect of pre-harvest foliar application of potassium sulphate on storability of ber (*Ziziphus mauritiana* Lamk.)

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Abstract : An experiment was conducted to study the effect of potassium sulphate (0.5%, 1% and 1.5%) sprayed at fruit set and one month after fruit set. Various concentration of potassium sulphate was applied through spray and fruits were harvested after maturity. Uniform size fruits were packed in card board boxes without paper lining and cushioning material and stored at room temperature. Physiological loss in weight increased with increase in storage period in all the treatments up to 8th days. Maximum PLW (Physiological loss in weight) was observed in control fruits after 8th day of storage and minimum PLW was observed in fruits sprayed with 1 per cent potassium sulphate at one month after fruit set.

Key Words : Ber, Potassium sulphate, Decay, PLW

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INTRODUCTION

Indian jujube (*Ziziphus mauritiana* Lamk.) popularly known as ber, is a member of Rhamnaceae family and is an ancient fruit of indo-China region. It is cultivated extensively in arid and semi-arid region of India. The fruits start ripening as early as middle of December in western part of India whereas in the northern plains the fruits start ripening by mid-February. Being a non-climacteric fruit, ber normally harvested at full ripening. Ripening fruits are highly perishable due to thin and delicate skin and high water content in pulp, which reduces the self life of fruit after harvest. Due to rapid change in colour and poor keeping quality, it is very difficult to transport the fruits even from the site of production to the market. According to Singh *et al.* (1973), ber is found growing under varying climatic conditions, almost throughout India. Under normal storage conditions ber fruits can not be transported to far off places. Singh and Ahlawat (1996) reported that foliar application of zinc sulphate and ureas in ber improve the fruit set and quality. Nutrients play an important role in improving the quality of fruit and play an important role in

photosynthesis and building of the carbohydrates in the plants and finally more assimilate available for fruit development and better storage.

MATERIALS AND METHODS

The present investigation was carried out in experimental orchard and in the post-harvest technology laboratory of Department of Horticulture, C.C.S. Haryana Agricultural University, Hisar during the year 2007 and 2008. For pre-harvest treatments the healthy ber fruit plants of uniform age cv. Umran were selected and sprayed with different concentrations of potassium sulphate *i.e.* T₁ (0.5% K₂SO₄ sprayed at fruit set *i.e.* October), T₂ (0.5% K₂SO₄ sprayed at one month after fruit set *i.e.* November), T₃ (0.5% K₂SO₄ sprayed at fruit set and one month after fruit set *i.e.* October-November), T₄ (1.0% K₂SO₄ sprayed at fruit set *i.e.* October), T₅ (1.0% K₂SO₄ sprayed at one month after fruit set *i.e.* November), T₆ (1.0% K₂SO₄ sprayed at fruit set and one month after fruit set *i.e.* October-November), T₇ (1.5% K₂SO₄ sprayed at fruit set *i.e.* October), T₈ (1.5% K₂SO₄ sprayed at one month after fruit set *i.e.*

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