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ASSESSMENT OF SOME 'BER' (*ZIZIPHUS MAURITIANA* LAMK.) CULTIVARS FOR THEIR MINERAL COMPOSITION

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ABSTRACT

Leaf samples of 20 'ber' (*Ziziphus mauritiana Lamk*) cultivars growing under Hisar conditions were analysed for their mineral composition. Nitrogen content was maxmum in 'Banarsi Karaka' and minimum in 'Umran'. 'Desi Alwar' contained maximum phosphorus Potassium content was maximum in cv. 'Sandhura Narnaul'. 'Ponda' and 'Mudia Murhara' contained maximum calcium, whereas cv. Jallandhari was found to be richest in magnesium. Zinc and iron content in the leaves of different cultivars under study varied from 8 to 48 ppm and 30 to 165 ppm respectively.

INTRODUCTION

'Ber' (*Ziziphus mauritiana* Lamk,) is an important fruit crop of arid and semi arid regions, but very scanty information is available on its nutritional aspect which could be of value in making judicious fertiliser schedules for profitable production. Since Ber varieties differ in their vigour and cropping behaviours so should have different nutrient requirement for each variety. So far no work has been done to assess the various ber cultivars for their mineral status. Leaf analysis based on correct sampling procedure and interpretation to indicate nutrient availability in fruit crops has long been accepted (Smith, 1962). Therefore, in the present studies mineral composition of various ber cultivars was determined on the basis of leaf analysis.

MATERIAL AND METHODS

The studies were conducted during 1984-85 at the experimental orchard of Haryana Agricultural University, Hisar on 15-year old healthy trees of 20 ber cultivars, budded on *Ziziphus mauritiana* Lamk. The trees were maintained under uniform orchard management practices. Leaves were sampled as per procedure recommended by Ahlawat et al. (1984). Recently mature leaves from current season shoot were collected during the month of October. The leaves were washed with tap water, 0. 10 HCl and subsequently with double distilled water and were dried in oven at 60°C. The ground leaf samples were analysed for nitrogen by Nesslers reagent method and phosphorus by colorimetric method of Jackson (1962). Potassium was estimated by flame photometer, while calcium and magnisium by Versenate method. Zinc and iron were determined by atomic absorption spectro-photometer.

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