

RESEARCH PAPER

Success of shield budding in Nagpur mandarin in shade net and open field condition

R.B. BHUSARI*, N.D. JOGDANDE, S.G. BHARAD AND P.K. NAGARE

Department of Horticulture, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, AKOLA (M.S.) INDIA

ABSTRACT

Studies were carried out at experimental orchard of AICRP (Tropical Fruits) Dr. PDKV, Akola Maharashtra on shield budding in Nagpur mandarin in shade net and open field conditions at 15 days interval from 15th November to 30 January. Height of bud graft, length of scion and number of leaves on scion were best under open field conditions similarly maximum bud take per cent, bud survival per cent, leaf area and chlorophyll content were better under open field condition than shade net condition. Budding done at 15th December under open field condition gave the maximum height of bud graft, length of scion, number of leaves on scion, bud take per cent, bud survival per cent, leaf area and chlorophyll content than all other treatments.

Key Words : Shield budding, Shade net, Open field condition, Nagpur mandarin

View point paper : Bhusari, R.B., Jogdande, N.D., Bharad, S.G. and Nagare, P.K. (2012). Success of shield budding in Nagpur mandarin in shade net and open field condition. *Asian Sci.*, 7(1): 28-30.

Citrus is the third largest fruit production industry of the country after banana and mango and occupies 13 per cent of total area under fruit cultivation with about 11.9 per cent of annual fruit production of the country (Anonymous, 2008). Among the various types of citrus fruit grown, mandarin (*Citrus reticulata* Blanco) occupies about 3.9 per cent of the total area and 2.4 per cent of the total fruit production throughout the country (Anonymous, 2008). In Maharashtra Vidarbha alone covers more than 86 per cent area under mandarin. In Vidarbha it is grown on an area of 65,000 ha with annual production of 4.25 lac tones. It is grown mostly in Amravati, Nagpur and Wardha districts where more than 80 lac of Nagpur mandarin nursery plants are raised and sold through 325 to 350 governments and private nursery (Anonymous, 2000). So by providing genuine planting material which is disease and pest free, productivity level of mandarin in this area can be increased to a considerable extent. This is only possible in greenhouse nursery but at present there is no standardized time for budding in Nagpur mandarin under

greenhouse

RESEARCH METHODOLOGY

The present investigation was carried out using Nagpur mandarin scion at experimental orchard of AICRP (Tropical Fruits) Dr. P.D.K.V., Akola during 2009-2010. The experiment was laid down in Completely Randomized Design comprising twelve treatments, three replications with 50 bud grafts under each treatment. The rootstocks selected for experimental purpose were of pencil thickness, straight in growth and in good sap flow condition having longitudinal white streak on the bark. Bud wood for budding operation was selected from fairly well mature non bearing current year shoot having longitudinal white streak on the bark and swollen buds which were ready to grow after budding. Shield budding operation was done at 15 days interval from 15th November to 30th January under open field and shade net condition. The experimental area was provided with uniform cultural practices. Data on

* Author for correspondence

N.D. Jogdande, AICRP (T.F.), Dr. Panjabrao Deshmukh Krishi Vidhyapeeth, AKOLA (M.S.) INDIA

S.G. Bharad and P.K. Nagare, Department of Horticulture, Dr. Panjabrao Deshmukh Krishi Vidhyapeeth, AKOLA (M.S.) INDIA