



Research Note

Article history :

Received : 21.01.2012

Revised : 30.04.2012

Accepted : 01.05.2012

Response of different environments and dates of shield budding on success and bud take in nagpur mandarin

■ R.B. BHUSARI AND N.D. JOGDANDE¹

Members of the Research Forum

Associate Author :

¹Department of Horticulture, Dr.
Panjabrao Deshmukh Krishi
Vidyapeeth, AKOLA (M.S.)
INDIA

Author for correspondence :

R.B. BHUSARI

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

Abstract : An experiment was conducted to study performance of bud graft and to standardized date of budding in Nagpur mandarin under open and shade net conditions to get maximum bud survival per cent and bud take per cent. Six budding dates 15th November, 30th November, 15th December, 30th December, 15th January, and 30th January were tried through shield budding under the shade net and open field conditions. The overall bud take and budding success of 65.78 per cent and 54.94 per cent, respectively were obtained under open field condition. Average temperature, relative humidity and light intensity in open field condition during this period was 25.33°C, 45.62 per cent and 59705.66 Lux, respectively. where as in shade net condition only 46.05 per cent bud take and 26.83 per cent bud success was observed. With regard to date of budding 15th December under open field condition was found to be best date of budding for bud take and budding success. During this period average temperature, relative humidity and light intensity were 22.75°C, 48.32 per cent and 57666.34 Lux, respectively.

Key words : Shield budding, Mandarin, Date of budding

How to cite this article : Bhusari, R.B. and Jogdande, N.D. (2012). Response of different environments and dates of shield budding on success and bud take in nagpur mandarin, *Asian J. Hort.*, 7(1) : 235-236.

Mandarin is propagated by shield budding on the rootstock of Jambhiri (*Citrus jambhiri* Lush) and Rangpur lime (*Citrus limonia* osb). Fruits of Jambhiri and Rangpur lime are available in the month of September- October. Seedlings are ready for budding in the month of November and December in the next year. In Vidarbha Amravati, Nagpur and Wardha districts are well known for mandarin production where more than 80 lac of Nagpur mandarin nursery plants are raised and sold through 325 to 350 government 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 considerable extent. This is only possible in greenhouse nursery but at present there is no standardized time for budding in Nagpur mandarin under greenhouse condition in Vidarbha region, hence, the study was under taken to standardized date of budding in nagpur mandarin under open field and shade net conditions.

The present study was conducted during 2009-2010 at experimental orchard of AICRP (Tropical Fruits) Dr. PDKV, Akola. The experiment was laid down in Completely

Randomized Design comprising twelve treatments, three replication 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 selected for budding operation was to be selected form fairly well mature non bearing current year shoot having longitudinal white streak on the bark and swollen buds which are 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 bud take per cent was recorded 30 days after budding. Whereas the final budding success was observed 90 days after budding. The data was analyzed as per the method suggested by Gomez and Gomez (1984).

Different dates of budding and environment had significant influence on bud take per cent and budding success in Nagpur mandarin (Table 1). Highest bud take 83.67 per cent was obtained by budding on 15th December in open field condition. This might be due to the availability of congenial