Value addition of candytuft (*Iberis umbellata* L.) cut flowers coloured with edible dyes

SUDHA D. PATIL* AND HARSHAL E. PATIL
ASPEE College of Horticulture and Forestry, Navsari Agricultural University, NAVSARI (GUJARAT) INDIA

The present investigation was conducted with a view to screen out the effect of different edible dye concentration and time duration of immersion on vase life and quality of candytuft cut flowers. The shades of colour deepened as the concentration and time of immersion were increased. Similar results were obtained in all edible dyes, without affecting physiological processes. The shades retained at the end of vase life by the inflorescences for all dyes. There was no significant difference found in the various treatments, indicating that there is no adverse significant effect of dye concentration, time of immersion and combination of both factors on the vase life and quality of cut flowers of candytuft.

Key words: Candytuft Flower, Value addition, Colouring solutions.

INTRODUCTION

All over the world, the floriculture sector is experiencing rapid changes. Due to globalization and its effect on income generation in different parts of the world resulting in per capita consumption of flowers in most countries. A produce when subjected to a change for higher monitory gains, is referred as value addition. Candytuft is an important winter annual cut flower plant. The plants are useful for massing in beds, in annual borders and edging along paths. The flowers of candytuft are used as cut flower in bouquets and flower arrangements. Flowers and their colours symbolize different human moods. The impact of colour is so tremendous in our mind that the name itself is able to draw our attention to attributes to thing that is resembled by that colour. In nature, unlike other cut flowers candytufts are found in white colour. Colouring these inflorescences with edible dyes can really enhance the value of these flowers and helps the farmers in earning more from their produce. It can also provide a great variety of colours for aesthetic beautification. The present investigation was undertaken to screen out the effect of different edible dye concentration and time duration of immersion on vase life and quality of candytuft cut flowers.

MATERIALS AND METHODS

The present investigation was carried out in month of February-2005 at the Research Laboratory, Department of Floriculture and Landscaping, ASPEE College of Horticulture and Forestry, N.A.U., Navsari. Seven different edible dyes were used as Colouring agents *viz.*, Yellow, Orange Red, Falsa Blue, Apple Green, Pink Rose, Tomato Red and Kalakhatta at concentration of 0.5% dye (C_1), 1.0% dye (C_2) and 1.5% dye (C_3). Six different time of immersion were taken at half an hour interval that is 0.5 hr (D_1), 1.0 hr (D_2), 1.5hrs (D_3), 2.0 hrs (D_4), 2.5 hrs (D_5) and 3.0 hrs (D_6). In the first part, the observations were taken on changes in weight (%) of flowers, total solution uptake (ml), useful vase life and total vase life. In second part, observations on colour shades obtained at the time interval of 30 min. in three concentrations as well as shades retained at the end of vase life were recorded. Quantitative observations on total vase life and cost benefit ratio were also recorded. The colour shades obtained and retained were compared visually with Ridgeway Colour Charts. The data recorded on all quantitative parameters were statistically analyzed as per Completely Randomized Design with Factorial Concept. Treatments were repeated thrice.

RESULTS AND DISCUSSION

Colour shades obtained:
it was observed From the Table 1, 2, 3, 4, 5, 6 and 7, that the colour shades obtained on inflorescences were directly dependent on the dye concentration and the time of immersion. It is seen that the treatment D_1C_1 gave the lightest shades of flowers (Light Yellow) and the treatment D_6C_3 gave darkest shade (Yellow-2) for Yellow dye. The shades of colour deepened as the concentration and time of immersion were increased. Similar results were

* Author for Correspondence