RESEARCH PAPER

Influence of planting date and spacing on growth and earliness parameters in onion seed crop

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Abstract : Planting of bulbs on first October resulted with maximum plant height (80.4 cm) at 90 DAP (Days after planting) and maximum number of leaves at 90 and 120 DAP compared to first September and first November planting. Planting of bulbs at a closer spacing of 45 x 15 cm resulted with maximum plant height at 90 and 120 DAP over other spacing levels. Onion bulbs planted at a closer spacing of 45 x 15 cm resulted with maximum number of leaves on 90 DAP. However, wider spacing of 60 x 30 cm resulted with maximum number of leaves at 120 DAP. Bulbs planted on first October at 60 x 15 cm spacing resulted with maximum plant height (90.5 cm) at 90 DAP, whereas, first November planting at 60 x 15 cm recorded maximum (103.8 cm) plant height at 120 DAP. First October planting at 60 x 15 cm resulted in maximum number of leaves at 90 (65.60 and 120 (58.4) DAP. Onion bulbs planted on first November took least number of days for first and 50 per cent scape emergence and 50 per cent flowering, however first October planting took least number of days for first flowering. Onion bulbs planted at a closer spacing of 45 x 15 cm took least number of days for first and 50 per cent flowering. Onion bulbs planted on first November took least number of days for for first and 50 per cent flowering. Onion bulbs planted on first November took least number of days for 50 per cent flowering.

Key Words: Onion, Seed production, Planting date, Spacing, Growth, Earlines

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Introduction

The growth and earliness of onion seed crop greatly depends upon many factors, such as time of planting of mother bulbs, spacing, bulb size, temperature etc. Since the plant growth and flowering of onion is largely influenced by the prevailing temperature, a location specific studies needs to carry out for ideal time of planting. Therefore, it is essential to know the optimum time for planting of onion bulb for obtaining better vegetative and reproductive growth.

MATERIALS AND METHODS

The experiment was conducted in the Olericulture Unit of Kittur Rani Channamma College of Horticulture, Arabhavi, Belgaum (Karnataka). The experimental site was laid out during

Rabi season of 2005-06 with three planting dates (main plots) and four spacing levels (sub plots) in three replications in Split Plot Design. In each plot, five plants were randomly selected leaving the boarder rows and tagged for recording growth and earliness parameters. Data were subjected to analysis of variance and critical differences were calculated to compare the means, as described by Sundarraj *et al.* (1972).

RESULTS AND DISCUSSION

Planting dates significantly influenced the growth parameters, such as plant height at 90 days after planting (DAP) and number of leaves at 90 and 120 DAP (Table 1 and 2). Planting of bulbs on first October resulted with maximum plant height (80.4 cm) at 90 DAP and maximum number of leaves at 90 (61.0) and 120 (56.0) DAP compared to first

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