

Growth and Flowering of Five Lettuce Cultivars as Affected by Planting Date

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ABSTRACT. Field experiments were conducted to evaluate the growth and flowering of five commercially available lettuce (*Lactuca sativa* L.), cultivars 'Heavy Green (C1)', 'Murillo (C2)', 'Royal (C3)', 'Parris Island (C4)' and 'Valmaine(C5)' at four planting dates (23 Sep., 14 Oct., 4 Nov. and 25 Nov. 1995). The experiment was repeated the following year. The experiments determined head weight (g), head length (polar diameter [cm]), head diameter (lateral diameter [cm]), stalk length, dry matter percentage (%), yield per square meter (kg) and days from transplanting until 50% flowering. Greatest vegetative growth and yield were obtained from the first and second planting dates. Delaying the planting after mid-Oct. resulted in less growth and earlier flowering. 'Heavy Green' and 'Murillo' (head lettuce types) had higher yield compared to other cultivars. Flowering of these two cultivars was less affected by planting date, while other cultivars ('Royal', 'Parris Island' and 'Valmaine') tended to flower sooner in the later planting dates.

Keywords: *Lactuca sativa* L., planting dates, temperature, growth, flowering.

INTRODUCTION

Several criteria favor the use of lettuce (*Lactuca sativa* L.) as a life support crop, including its versatility as fresh salad crop and its ability to grow continuously under constant temperature and artificial light and its low growth habit with a defined shoot shape (Tibbitts and Alford, 1982). Production of good quality lettuce in the open field is dependent on not only the genetic of the crop but also on ambient temperature (Jie and kong, 1998). Lettuce is usually grown in areas in which the mean temperatures are 10 to 20°C. Heading is prevented and seed stalks form in the

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