

INFLUNCE OF PLANTING DATE AND PLASTIC MULCH ON GROWTH AND YIELD OF OKRA '*Climson Spineless*'

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ABSTRACT

Field experiments were conducted to evaluate the growth, early and total yield of Okra '*Climson Spineless*' in Riyadh region, Saudi Arabia. Treatments were consisted of three planting dates (5 and 20 February and 5 March), and different types of plastic mulch (black, clear and bare soil). The treatments were replicated four times and random arranged in a split plot in randomized complete blocks design. Growth parameters, plant height, number of leaves, fresh and dry weight of vegetative growth, as well as early and total yield were measured. Results, generally showed that later planting date and using plastic mulch resulted in a significantly higher plant growth and production. Also, there was interaction between planting date (later planting) and using black and clear mulch on leaf area of Okra plants in the experiment of 2002.

Key Words: *Abelmoschus esculentus* L., Black Mulch (BM), Clear Mulch (CM), planting date, growth, yield.

INTRODUCTION

Okra (*Abelmoschus esculentus* L.) is an important vegetable crop, rich in carbohydrate and vitamin c, generally grown in summer season. It is considered as one of the main vegetable crop in Saudi Arabia, with a high economical value in the most period of the year. The major commercial cultivar of Okra is climson spineless, medium tall, with moderately ridged pods. It is categorized as a very tender, unable to tolerate low temperature for long, let alone threat of frosts. The optimum temperatures are 21 – 30 °c range, with minimum temperature of 18°C and a maximum of 30 °c (Nonneck, 1989). It was realized that varying dates of planting would encompass several environmental factors, especially changing day lengths and temperatures as the plantings were delayed.

Several researchers (Gupta, 1981, in India; Iremiren, 1986 and Gorochand *et al*, 1992) studied the effect of date of planting on the growth, yield and quality of okra. Their results, generally, indicated that the growth of plants from early sowing was more vigorous than that of later sowing and flowered earlier and had a longer harvest duration and yield. Al-Harbi, 1999, in