

INTRODUCTION

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Rosa is a widespread genus, easily distinguished by well marked characters from allied genera, but in the limits of the genus itself the characters are exceedingly variable. It is very difficult to group the members of Rosa genus into sections and species since the innumerable forms which often pass gradually into each other. Bailey (1947), described from Europe and West Asia alone 4266 species.

Rosa gallica is one of the species of the genus, Rosa belonging to the family Rosaceae.

The economic properties of the rose are of very important in landscape and as the queen of cut flowers. However, with Rosa gallica the most valuable product is attar of roses which is highly fragrant essential oil. The similar essential oil is chiefly manufactured in South East, Europe and Western Asia from Rosa alba, Rosa damascena, Bailey (1947).

It was mentioned also that some few varieties exhibit a marked fragrance, this fragrance, moreover,

differs considerably according to plant variety. Thus, the perfume of some types recalls hyacinth or violet flowers; or musk; that of others may be reminiscent of certain fruits-raspberry for example.

According to Geunther (1952), Rosa oil used only in handkerchief perfume, or in cosmetics where solubility plays no role. In powders and cream even the much lower priced concrete rose oil may give excellent results. The distilled rose oil have been used for the flavouring of certain types of tobacco, particularly snuff and chewing tobacco. Limited quantities of the oil are employed also in the flavouring of soft drinks and alcoholic liqueurs. As well as dry flower buds may be used as spices.

In Egypt, Rosa gallica var. aegyptiaca plantation concentrated in Kaliobia Governorate to some recent years.

The aim of our study is to investigate some factors which may influence vegetative growth, yield of flower, concrete and absolute oil of Rosa gallica var. aegyptiaca.

Growth regulators as kinetin and the growth retardant as B₉ were used in this investigation. Also the addition of nitrogen fertilization and combination of it with each of the two growth regulators were included to study their effect on the growth, flowering, concrete and essential oil yield.