INTRODUCTION

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Nicotiana (named for Jean Nicot, 1530-1600). A genus of about 45 species and 54 substancies mostly of tropical Amer. with a few from north and south Amer. and only one from Australia.

Grewmen who accompanied columbus to the new world were the first European to observe the smoking of tobacco. In the following century the smoking of tobacco spread throughout the world. The tobacco plant was named Nicootiana tobacum in honor of Jean Nicot, who promoted its importation and cultivation in the belief that it had medicinal value **Goodman & Gilman's (1991).**

Domestic tobacco cultivation was outlawed by Mohamed Ali in the early 1800,s and the prohibition of cultivation continued until today. The governement uses imported tobacco to collect revenue, and would lose tax revenues from home consumption if production was sanctioned. Nevertheless, small areas of tobacco are illegelly cultivated in upper Egypt. This "illegal" tobacco is used for home consumption or is marketed to private sector for water-pipe tobacco manufactures.

Chronic use of tobacco is causally linked to a variety of serious diseases, ranging from coronary artery disease to lung cancer. On the other side it said that nicotine fuciliates memory or attention, reduces uggression and decreases weight gain. Smokers weight an average of 5 to 10 pound less than nonsmakers. The nicotine in tobacco appears to suppress appetite for sweeter tasting food and to increase energy expenditure both at rest and during exercise. **(Perkins *et al*, 1989).**

Nicotine is the most important pharmacological constituent in Nicotiana plants. It was first isolated from the leaves by Posselt and Reiman in 1828.

It take place in the pharmacutical industries, since it have a certain action on heart rate, blood pressure and peripheral nervous system.

Also, Nicotine used for its toxicity as effective agent of insecticide sprays.

In order to increase the nicotine content in some Nicotiana plants namely *Nicotiana rustica* (Hookah tobacco) and *Nicotiana alata* (oriental tobacco), nitrogen fertilizer was suggested owing to the positive relationship between nicotine structure and nitrogen, **Huyhes and Genest (1973)** reported that most alkaloids are basic nitrogen-containing heterocyclic compounds. The influence of fertilizers on the alkaloids production of plants has been studied frequently **(Mothes 1960),** fertilizers high in nitrogen are essential for good yield in many alkaloidal plants (e.g., *Datura stramonium*). **Schermeister *et al* (1960)** investigated the effect of different sources of nitrogen in water cultures of *Atropa belladonna.* They found that the percentage of alkaloids in the plants rather independent on the amounts of nitrogen (5-30 mq/L.), they addes that, alkaloids production was generally better with $NH4^-$ than with $NO3^-$ supply at nitrogen levels.

Consequently, this investigation was initiated to study the effect of two forms of mineral nitrogen fertilizer namely urea and ammonium sulphate applied at two levels and two methods of application, dressing or foliar application were suggested in order to overcome losses of nitrogen by volatilization or leaching from soil.

Topping as a horticultural practices was considered to increase branching, vegetative growth and nicotine yield of *Nicotiana rustica* and *Nicotiana alata* plants.