

**P 6: Response of growth and wax production of jojoba (*Simmondsia chinensis* (Link) C.K. Schneid.) to the growing location in Egypt**



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**Abstract**

Jojoba plant (*Simmondsia Chinensis* (Link) C.K. Schneid.) Or Ho-Ho-ba, Jojoba or goat nut is a shrub belongs to family Simmondsiaceae. It is well known as a useful medicinal plant and as a new industrial crop was of interest for many industrial countries at present. The present study was carried out at the two successive seasons of 2012 / 2013 and 2013 / 2014 at private jojoba farms located as following: El-Kassasin city, El-Ismailia, Marsa Matroh, El-Sharkia, Asuite and El-Khanka governorates, Egypt

**The study** focused on studying the effect of the different local growing site of Egypt on the growth and wax aiming to detect the best location for the suitable growing site to produce the best growth and wax yield.

Nine jojoba female shrubs were selected in each farm from the growing shrubs depending on its obvious morphological growth characters and the different seeds shape and then they were marked by labels for data measurements. The monthly temperature and relative humidity average during the study seasons of were taken and recorded. The Physical and chemical properties of the experimental soil were also determined and presented.

Growth and flowering characters of jojoba shrubs e.g. plant height and volume as well as flowering period and fruiting set were greatly altered due to the growing location. Since plant which were grown in Upper Egypt Asuite site tended to produce the best growth and the extended flowering. Moreover, plants which were cultivated in El Sharkia and Assiut sites gave the biggest yield of wax, compared to the other cultivation sites, while the lowest yield of wax was from plants cultivated in Marsa Matroh area. The best level of almost of the fatty acid content (palmitic, oleic, nervonic acids, gadoleic and erucic acid) was found in the wax extracted from seeds of shrubs grown in Ismailia growing site.

Key words: jojoba, growing site, wax, fatty acid, hohoba, growth, flowering