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CITRICULTURE AND GENETIC RESOURCES IN EGYPT: STATE OF THE ART

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SUMMARY - Citriculture and citrus genetic resources in Egypt are reported with cultivated areas and productions of different species in each Governorate.

Key words : Citrus, genetic resources, citriculture, Egypt

RESUME - *L'agrumiculture et les ressources génétiques agrumicoles sont rapportées, en considérant les surfaces cultivées et la production des différentes espèces dans chaque Gouvernorat.*

Mots clés: Agrumes, ressources génétiques, culture des agrumes, Egypte

INTRODUCTION

Citrus is the main fruit crop in Egypt, its cultivation expanding in the newly reclaimed land. The citrus growing area covers approximately 337 thousand feddan, accounting for 37.1% of the total fruit cropping area (statistics from the Central Administration of Horticulture, 1998). The annual production of fruit averages 2.15 million tons, equalling 36.7% of the total fruit tree production. Exports are estimated at 200 thousand tons and the volume of processed fruit totals 184 thousand tons.

Citrus trees are cultivated across Egypt. The cultivation is gradually spreading to the North, in Sharkia, Behira, Kalubia, Monofia, Giza, Ismailia, Gharbia, Asuit and Beni swif, including the newly reclaimed desert areas in Noubaria district, stretching across 89 thousand feddan in 1998 (Figure 1).

The planted area and relative production of the main citrus species are reported in Figure 2.

Sour orange rootstock has been extensively used in Egypt but, recently, Volkameriana rootstock has started to be used more widely in sandy soils. Orange trees have been planted in the upper areas as seedlings prior to the introduction of rootstocks. However, grafted trees have gradually replaced seedlings. Most citrus trees are produced by private nurseries (about 90%) and the annual output averages 3.5 million of grafted trees.

THE CURRENT SITUATION OF CITRUS GENETIC RESOURCES IN EGYPT

Orange group (*Citrus sinensis*)

Orange cultivars are the most widely grown among citrus species (accounting for 62.0 % of the total cultivated area). A list of the main varieties, related to each group of oranges, follows:

1. Common

Balady, Hamlin, Jaffa, Shamouti, Parson Brown, Pineapple, Roja, Salustiana, Vesido, Cleanwilliam, Common dolce, Royal, Temp, Youssef Soliman (local), Balady few seeded (local), Tanarrif, Yellow Banaty, White khalily and Rounded Jaffa.

2. Navel

Washington, Navel 1-13 (local-nucellar), Robertson, Thomson, Carter, Golden Nugget, Parent, Skaggs Bonanza, Frost Lane late.

3. Valencia

Valencia, Indian, Australian, Hart of Florida, Lue Gim Californian, Valencia 10, Valencia 123, Nucellar (local) and Cutter nucellar.

4. Succari or Sugar

Dennis, Balady and Tunisian.

5. Pigmented

Egyptian Blood, Red Khalily and Sanguina Oval.

Mandarin and mandarin-like group (*C. reticulata*, *C. deliciosa* and *C. tangerina*)

Mandarins rank second among the cultivated varieties, accounting for 26.1%. Balady (local) is the most widely planted variety, followed by:

Abd El-Razik (local), Sonbol (local), King, Ponkan, Dancy tangerine, Clementine plus some hybrids (Kinnow, Kara, Fremont and Minneola tangelo).

Lime group (*C. aurantifolia*)

Lime accounts for 10.7% of the total cultivated varieties in Egypt. The most important lime varieties are Balady or Egyptian Rashidy (local), Mexican, Tahiti and Persian.

Other minor citrus varieties

The last group of citrus is estimated at 1.2%. It includes:

Sweet lime (*C. limetta*)

Varieties: Mistikawi, Balady-Palestine, Iraqi and Wahy

Grapefruit (*C. paradisi*)

Varieties: Marsh seedless, Foster, Thompson, Duncan, Ruby Red and Star Ruby Red.

Shaddock (*C. grandis*)

Varieties: Red, White and Spring

Lemon (*C. limon*)

Varieties: Eureka, Lisbon and Villafranca

Kumquat (*Fortunella margarita*, *F. Japonica*)

Varieties: Oval and Round.

Citrus Rootstocks

Sour orange (*C. aurantium*) is the main citrus rootstock used in Egypt; the main varieties are Balady (local), Sweet, Thornless, Brazilian, Russian and Spanish.

Volkameriana lemon (*C. volkameriana*) ranks second and some other citrus rootstocks encompass:

Cleopatra mandarin (*C. reshini*)

Rangpur lime (*C. latifolia*)

Rough lemon (*C. limon*)

Troyer and Carrizo citrange (*Poncirus trifoliata* x *C. sinensis*)

Swingle citrumelo (*P. trifoliata* x *C. paradisi*)

Citrus Macrophylla or Alemow (*C. macrophylla*)

Poorman's orange

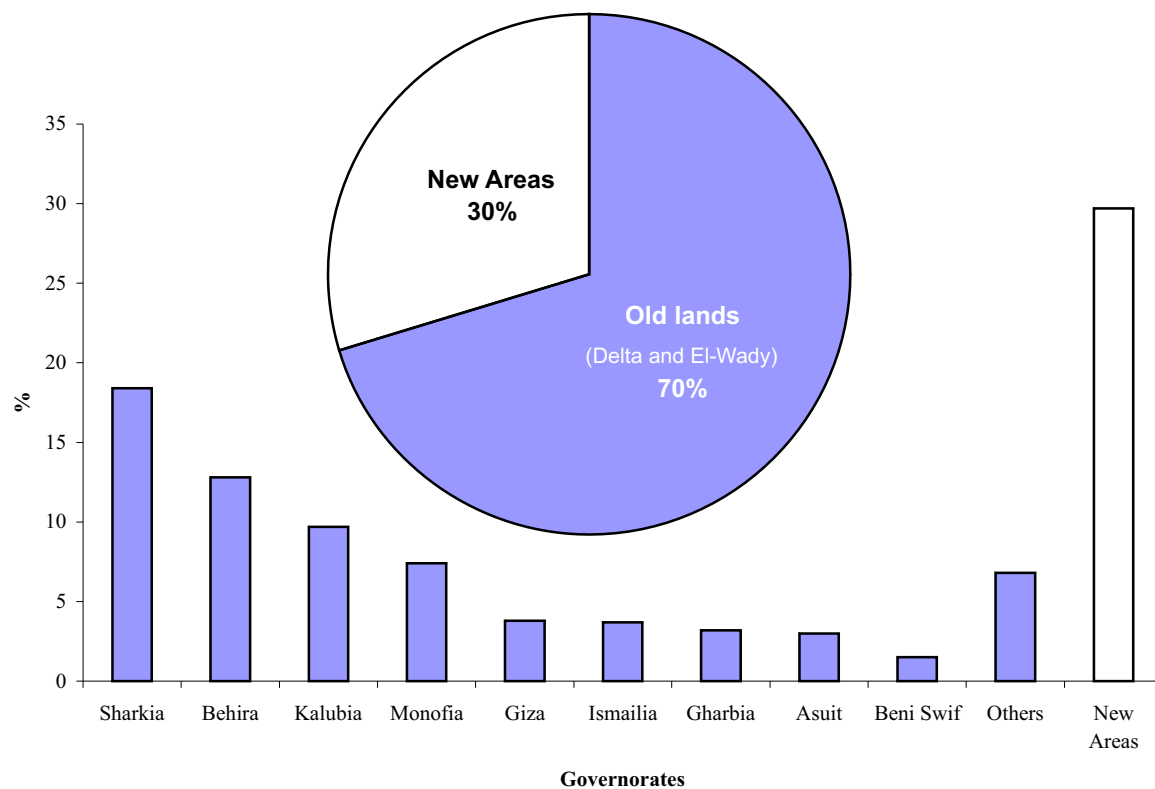


Fig. 1. Total citrus planted area according to the statistics of the Central Administration of Horticulture in 1998

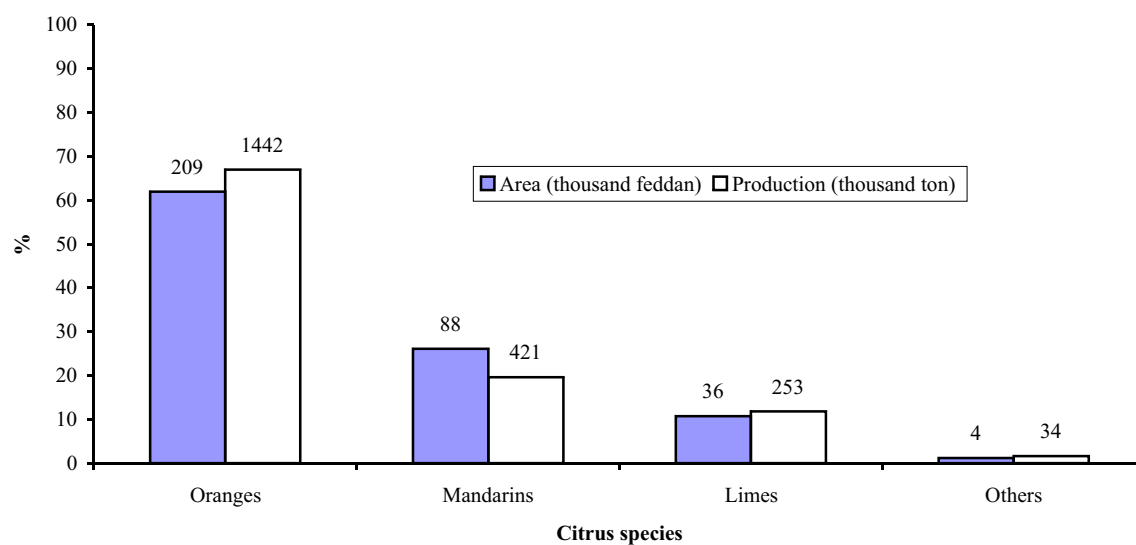


Fig. 2. Planted area and relative production of the main citrus species