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Production trends for fruit and vegetable crops in Egypt

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Résumé. Tendances de la production des légumes et des fruits en Egypte. *Les produits horticoles occupent une place primordiale et croissante dans l'agriculture. Entre 1980 et 1989, la production s'est accrue de 8,5 à 15 Mt ; les superficies ont progressé de 516 000 ha à 864 000 ha. La consommation de légumes est une des plus fortes du monde (185 kg/tête/an). Pendant les cinq dernières années, le verger et la production fruitière ont doublé. Le gouvernement, pour faire face à la croissance démographique et aux objectifs d'exportation, met en culture de nouvelles terres dans le désert, encourage l'amélioration génétique et l'élargissement de la gamme des produits.*

Abstract. In Egypt, fruit and vegetable crops occupy a key position in agriculture and their importance is growing steadily. During 1980–1989 production increased from 8.5 million t to 14.8 million t and cropped area from 516 000 ha to 864 000 ha. Per capita vegetable consumption in Egypt is one of the highest in the world at more than 185 kg/year. Efforts are under way to extend these crops to the newly reclaimed lands, to encourage plant improvement, and to diversify the product range. These measures aim to respond to growing domestic demand and export requirements.

Key words. Fruit – Vegetables – Irrigation – Consumption – Export – Egypt.

Introduction

Egypt is a subtropical country which lies between 22° and 31° north latitudes. Its climate mainly suits the production of many field and horticultural crops.

The total area of Egypt is about 100.2 million ha. According to recent statistics the population is about 55 million. More than 97% of the inhabitants live in 4% of the total area; 96% of the area is covered by desert. The total area under cultivation is 2 803 000 ha—about 3% of the total area.

Horticultural crops (fruit and vegetables) play a very important and major role in Egypt's agriculture. This is demonstrated by the increase in the area planted to these crops from 516 000 ha in 1980 to more than 864 000 ha in 1989 or almost 168%. Total production of these crops in 1989 was 14.8 million t which is an increase of 74% from 8.5 million t in 1980. This substantial increase in area and production of horticultural crops is due to the preference given to these crops because of their high returns compared with other field crops.

I. – Production trends for vegetable crops

The total vegetable-growing area in 1989 was about 18% of the total cultivated area in Egypt. It reflects the high domestic consumption rate which is one of the highest in the world. Annual per capita consumption for vegetables increased from 141 kg in 1984 to 185 kg in 1989 *(Table 1)*.

Vegetable crops showed considerable development during 1984–1989. Total vegetable-growing area expanded by 21% from 436 758 ha in 1984 to 529 562 ha in 1989, while total production increased by 30.5% from 9 216 014 t to 12 028 793 t *(Table 2)*. Production increase is therefore clearly due to higher yields resulting from the use of modern technology rather than expansion of cropped area.

Table 1. Annual per capita consumption of vegetables (in kg) in Egypt, 1984–1989

	1984	1985	1986	1987	1988	1989
Consumption	141	154	173	161	183	185

Table 2. Total area, production, and value of vegetable crops in Egypt, 1984–1989

Year	Area (ha)	Production (t)	Value (£E)
1984	436 758	9 216 014	1 973 766 200
1985	465 048	9 900 635	2 114 749 500
1986	510 290	11 040 706	2 452 109 420
1987	517 863	10 230 677	2 678 682 700
1988	501 824	11 445 180	2 819 666 000
1989	529 561	12 028 793	3 453 554 890

Table 3. Area and production of selected vegetable crops in Egypt, 1989

Crop	Area (ha)	% of total area	Production (t)	% of total production
Tomato	167 302	31.6	4 212 146	35.0
Potato	86 078	16.3	1 862 018	15.4
Squash	23 147	4.4	418 435	3.5
Melon	18 201	3.4	408 537	3.4
Cabbage	16 132	3.1	459 993	3.8
Cucumber	15 735	3.0	265 172	2.2
Pepper	15 196	2.8	262 264	2.2
Eggplant	16 749	3.2	370 747	3.1

Table 4. Egyptian vegetable exports from 1984/85 to 1987/88

Crop (t)	1984/85		1985/86		1986/87		1987/88	
	Quantity (£E)	Value (t)	Quantity (£E)	Value (t)	Quantity (£E)	Value (t)	Quantity (£E)	Value
Potato	120 606	17 995	111 635	15 834	112 000	31 600	160 000	55 500
Garlic	3 547	1 552	1 865	0 869	1 654	1 200	2 489	1 900
Onion	16 659	3 425	30 111	7 295	19 250	7 700	42 955	24 700
Melon	19 610	5 025	20 843	5 868	18 000	7 700	13 000	7 000
Tomato and other fresh vegetables	40 787	9.519	49 255	9 954	34 556	16 900	23 074	13 600

Tomato is the main vegetable crop in Egypt. The tomato-growing area in 1989 was 32% of the total vegetable-growing area; tomato production represented 35% of total vegetable production *(Table 3)*. The potato-growing area represented 16% of the total and production about 15% of the total.

The high rate of domestic consumption affects export development of vegetable crops *(Table 4)*.

Given the high per capita consumption rate and rapid population growth, the objective for vegetable crops is to further increase production through higher yields and area expansion.

II. – Production trends for fruit crops

In 1989, fruit crops area occupied 13% of the total cultivated area in Egypt. Annual per capita consumption of fruit increased from 41.8 kg in 1984 to 73.0 kg in 1989 *(Table 5)*. The fruit-growing area expanded rapidly during 1984–1989 *(Table 6)*. It increased by about 100% from 181 702 ha in 1984 to 362 705 ha in 1989.

Citrus is the major fruit crop in Egypt. In 1989 citrus crops occupied 32% of the total fruit-growing area; citrus production accounted for 39% of total fruit production *(Table 7)*. Grape ranks second after citrus. Vineyards occupy 15.6% of the total fruit-growing area and grape production accounts for 13% of the total.

Fruit exports fluctuate from year to year, with a general downward trend. This can be explained by the increasing demand of local markets for fresh fruit *(Table 8)*.

Table 5. Annual per capita consumption of fruit (in kg) in Egypt, 1984–1989

	1984	1985	1986	1987	1988	1989
Consumption	41.8	43.5	43.2	51.0	51.0	73.0

Table 6. Total area, production, and value of fruit crops in Egypt, 1984–1989

Year	Area (ha)	Production (t)	Value (£E)
1984	181 702	2 409 598	n.a.
1985	193 331	2 558 929	n.a.
1986	218 150	2 596 634	1 103 064
1987	252 938	3 172 839	1 151 883
1988	273 985	3 188 658	1 319 932
1989	362 705	4 658 854	1 760 153

Table 7. Area and production of selected fruit crops in Egypt, 1989

Crop	Area (ha)	% of total area	Production (t)	% of total production
Citrus	116 009	32.0	1 812 440	39.0
Grape	56 659	15.6	606 845	13.0
Banana	15 427	4.2	433 732	9.3
Date	55 976	15.4	475 818	10.2
Mango	18 918	5.2	129 045	2.8

Table 8. Egyptian fruit exports, 1985–1989

	Date, mango, and guava		Citrus		Grape		Stone fruits		Total fruit exports	
Year	Quantity (t)	Value (£E)	Quantity (t)	Value (£E)	Quantity (t)	Value (£E)	Quantity (t)	Value (£E)	Quantity (t)	Value (£E)
1985	2 727	886 058	176 435	61 676 032	197	99 143	134	62 355	198 455	6 768 179
1986	3 599	1 836 199	80 325	32 938 595	258	165 393	494	467 129	106 944	43 961552
1987	3 344	2 454 715	170 710	159 951 295	69	76 934	223	250 544	188 007	1 698 872
1988	2 704	1 667 776	101 137	94 851 048	73	70 506	874	831 226	117 974	1 046 894
1989	1 544	1 705 538	94 550	85 042 733	13	6 510	521	685 016	106 221	94 901 996

III. – Future prospects for the horticultural crops industry

The main obstacle to the development of vegetable and fruit production in Egypt is that land availability is limited in relation to soaring consumption rates due to rapid population growth. There are two ways to overcome this obstacle: **horizontal expansion** and **vertical expansion**.

The first solution is to expand the cropped area by reclaiming desert land. Since 1983/84, 504 600 ha have been reclaimed (about 6300 ha/year). Most of the new reclaimed areas are planted with vegetable and fruit crops because of the high economic returns to growers. The 5-year plan of the Egyptian government aims to add 62 500 ha of reclaimed land each year.

The second solution—vertical expansion—is to increase yields through the use of modern technology:

- use of modern high-yielding vegetable hybrids and fruit cultivars to improve productivity and quality;
- improvement of cultural practices by using modern techniques;
- efficient insect and pest control;
- reduction of vegetable and fruit crop losses.