



الملخص والتوصيات باللغة الإنجليزية:

The agricultural sector is an important economic sector, that is considered a source of income for nearly half of the population in Egypt as it contributed about 13.4% of the total gross domestic product as an average of the period 2000-2006. The animal production is a fundamental part of the agricultural production beside the plant production. The value of the animal production was about L.E. 34.1 billion, representing approximately 34.65% of the total value of the agricultural production as an average of the period 2000-2006. The value of the dairy production belongs to the fact that it represents a big portion of the animal production, where the real gross domestic product of the dairy products was about L.E. 8.06 billion which represents approximately 23.5% of the value of the animal production as an average of the period 2000-2006.

The problem of the study is the gap between the local production of dairy production and the total consumption due to the increasing demand. The gap was estimated as 1.3 million tons. The gap resulted a decrease in the average per capita. The study aims, mainly, at identify the economics of production and marketing of dairy products in Fayoum Governorate. The objectives of the study were stated as following; investigating the current situation of dairy production and consumption in Egypt and, in particular, Fayoum governorate, investigate the production efficiency of dairy production in Fayoum governorate, and identify the main problems and constraints facing the dairy farmers in Fayoum Governorate.

The third chapter investigates with the economic efficiency of dairy production farms in Fayoum Governorate. The chapter consists of two sections; the first section highlights the study sample and examines the most important characteristics of the it. The sample were chosen as stratified random sample of 200 dairy farms of buffalos and cattle in Fayoum Governorate distributed into 3 categories. The second section highlights the productivity and economic efficiency of the farms. The calculations indicate that the average production of milk per head from the three categories is 1836, 1868, and 1900 kg, respectively. As for the total cost of the head of milking buffalos within the three categories; the costs were estimated at about 3780, 3550, and 3350 L.E, respectively. As for the total income; it has been estimated at about 5200, 5200, and 5500 L.E, respectively. The net revenues/costs ratio for the three categories were estimated as 0,379, 0,465, and 0,641, respectively. As for the cost per



production unit; it has been estimated for the three categories as 2.06, 1.9, and 1.76 L.E, respectively.

It, also, been found that the milk production of milking cows from the three categories were about 1400, 1490, and 1550 kg, respectively. As for the total cost of the head of milking cows within the three categories; the costs were estimated at about 3460.3130, 3000 L.E, respectively. As for the total income; it has been estimated at about 4560, 4430, and 4700 L.E,. The net revenues/costs ratio for the three categories were estimated as 0,318, 0,415, and 0,567, respectively. As for the cost per production unit; it has been estimated for the three categories as 2.47, 2.1, and 1.94 L.E, respectively

The fourth chapter highlights the statistical analysis of production functions and costs functions of the dairy farms. The chapter includes four sections. The first section highlights the estimation of production functions for buffalo and cows' farms within the three categories. As for buffalos' farms; the study showed that for the first category of buffalos, the factors affecting the production were; the amount of clover, the number of working hours, and the length of the season. The production elasticity of the three factors were estimated as 0,324, 0.354, 0.84, respectively. The aggregate elasticity were estimated as 2.22. As for second category of buffalos, the factors affecting the production were; amount of sugar corn and the number of working hours. The production elasticity of the two factors were estimated as 0,546, 0,969, respectively. The aggregate elasticity were estimated as 1.52. As for third category of buffalos, the factors affecting the production were; amount of clover, years of experience, amount of hay, the number of work hours, and the length of the season. The production elasticity of the four factors were estimated as 0.43, 0.75, 0.29, 0.11, 0.59, respectively. The aggregate elasticity were estimated as 2.17.

As for cows; the study showed that for the first category, the factors affecting the production were; the amount of clover and the length of the season. The production elasticity for the two factors were estimated as 1.04 and 1.06, respectively. The aggregate elasticity were estimated as 2.1. As for the second category; the factors affecting the production were; the amount of clover and the length of the season. The production elasticity for the two factors were estimated as 1.32 and 1.59, respectively. The aggregate elasticity were estimated as 2.9. As for the third category; the factors affecting the production were; the amount of clover and the number of work hours. The production elasticity for the two factors were estimated as 1.17 and 0.23, respectively. The aggregate elasticity were estimated as 1.4.



The second section highlights the estimation of costs' functions for buffalo and cows' farms within the three categories. As for buffalos' farms; the study showed that for the first category of buffalos, the cost-minimizing size were estimated as 3.3 tons, the profit-maximizing size were estimated as 14.1 tons. The average production for this category were estimated as 4.17 tons. Only 49% of the producers within this category reached the cost-minimizing level of production. As for the second category of buffalos, the cost-minimizing size were estimated as 12.48 tons, the profit-maximizing size were estimated as 13.24 tons. The average production for this category were estimated as 8.88 tons. Only 10% of the producers within this category reached the cost-minimizing level of production. As for the third category of buffalos, the cost-minimizing size were estimated as 9.67 tons, the profit-maximizing size were estimated as 14.55 tons. The average production for this category were estimated as 14.55 tons. 100% of the producers within this category reached the cost-minimizing level of production.

As for cows' farms; the study showed that for the first category of cows, the cost-minimizing size were estimated as 1.59 tons, the profit-maximizing size were estimated as 8.8 tons. The average production for this category were estimated as 2.21 tons. Only 51% of the producers within this category reached the cost-minimizing level of production. As for the second category of cows, the cost-minimizing size were estimated as 3.05 tons, the profit-maximizing size were estimated as 26.7 tons. The average production for this category were estimated as 7.8 tons. 100% of the producers within this category reached the cost-minimizing level of production. As for the third category of cows, the cost-minimizing size were estimated as 12.59 tons, the profit-maximizing size were estimated as 30.3 tons. The average production for this category were estimated as 19.22 tons. Only 8% of the producers within this category reached the cost-minimizing level of production.

The third section focuses on the marketing channels of raw milk of both buffalos and cows and the structure of the distribution system within the three categories. The results showed that nearly about 5% of the production is used for feeding calves, about 75% is sold as liquid milk for both wholesalers and retailers and factories. The remaining amount of the production is self-processed at homes. The self-processed products might be sold to consumers or self-consumed. The marketing efficiency of raw buffalos' milk were estimated as 89.1%, 88.3%, and 88.2% for the three categories, respectively. As for cows' raw milk marketing efficiency, it was estimated as 90.8%, 89.3%, and 88.6% for the three categories, respectively.



The last section of this chapter highlights the most important problems facing dairy producers. It has been shown that the most important problems were; the high prices of dry and green fodders, the lack of fodders around the year, the livestock disease infections, and the slaughtering of small females. As for the marketing problems; the study showed that the most important problems of marketing are; the lack of collection centers, monopoly of raw milk purchasing, and the lack of adequate markets.