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### ECONOMIC EFFICIENCY OF FAMILY-FARM SMALL SCALE ENTERPRISE FOR TABLE-EGG PRODUCTION VERSUS LARGE SCALE ENTERPRISE

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#### SUMMARY

Economic comparison between the family-farm enterprise holding 95 layer hens per farm and the other large scale commercial enterprises showed that Egypt has a comparative advantage in table-egg production under, all patterns of commercial table-egg enterprising. However the large scale private enterprises performed the highest profitability and return to investment, followed by the small scale-family enterprise (one battery) and the least efficient pattern of enterprising was the large scale state or public sector enterprises.

#### INTRODUCTION

While the traditional farming system of Egypt was the only source of table-egg supply up to 1970, its role diminished to only one-fifth of the total supply in 1985. Total supply reached 4833 million pieces in 1985. No imports of table-egg were detected over the last five years. The supply structure of table-egg in 1985 was as follows: 27.8% from the traditional farming system, 5.5% from the public sector projects, 14.5% from the projects under the local administration of the governorates or the land reform cooperatives (which are similar to the state enterprising) and 52.2% from the large scale commercial private sector's enterprising (Ministry of Agriculture, 1986). Recently, the government has established the small farmer credit programme aiming at raising the farm-family income and agricultural productivity. Distribution of one battery with 95 layer pullets of a commercial strain per family was a major component of this programme.

The objective of this study was to compare the economic performance of the three commercial enterprising for table egg production in Egypt, i.e. the family-farm enterprise (FFE), with the large scale state enterprise (LSSE) and the large scale private enterprise (LSPE).

#### DATA BASE & METHODOLOGY

Data from a sample survey done in 1986 were used. The sample selected from Sharkia Governorate where Zagazig University is located and where the small farmer credit programme was extensively applied. The sample covered a full production cycle (1985/1986), and composed of 10 (LSSE), 30 (LSPE) and 30 (FFE). "L.S.L." is the common commercial layer strain in the Egyptian market.

Farm income statement and investment analysis were applied under shadow prices and shadow exchange rate, in order to exclude the impacts

of current subsidy policies. Five indicators were derived from the analytical models to express the economic efficiency. These indicators are: (1) Net farm income = return to family labor used + return to owner's capital invested + return to management + return to enterpriser, (2) pure profit = return to enterpriser due to risk bearing and creating idea, (3) Net cost of table-egg production = total costs - revenue of sold hens, (4) Return to investment = IRR, i.e. internal rate of return, (5) Net economic protection coefficient = net costs of table-egg production at shadow prices/table-egg boarder price (Brown, 1979).

## RESULTS AND DISCUSSION

From table (1) it is concluded that Egypt has a comparative advantage in egg production, because the net economic protection coefficient is less than one for the three enterprising systems.

Table 1. Economic Efficiency Indicators for Table Egg Production

Comparative Item	FFE	LSPE	LSSE
Table-Egg Output/Farm/Year	23912	195129	3081982
Investments (L.E.) <sup>*</sup> /1000 pieces	80.21	79.37	74.23
Net Farm Income (L.E.)/1000 pieces	30.3	37.79	20.72
Pure Profit (L.E.)/1000 pieces	21.55	30.57	17.41
Net Costs (L.E.)/1000 pieces	75.80	71.47	84.70
Net Protection Coefficient	0.76	0.72	0.86
Return to Investment (IRR)	27.4%	38.5%	23.5%

L.E. = Egyptian pound. One US dollar = L.E. 1.90 in 1986.

(LSPE) showed the highest profitability as well as the highest return to investment. However, (FFE) showed a higher profitability and return to investment than (LSSE). In addition to that (FFE) offers a high income opportunity for family labor employment, particularly, the rural women. Therefore, it is recommended to devote the available limited funds to expand (FFE) at the expenses of (LSSE). Reasons behind differences in economic efficiency among the three patterns have been detected from the inputs and costs schedule. Mainly, the three patterns differ in the fixed costs level. (LSPE) planning minimizes, efficiently, the permanent labor use as well as fixed capital investment. Eventhough, (LSPE) offers higher wage rate, which may attract the best quality of labor.

## REFERENCES

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- Brown, M. (1979). "Farm Budgets: From Farm Income Analysis to Agricultural Project Analysis". World Bank Staff Occasional Papers No. (29). Publishers the John Hopkins University Press, Baltimore, USA.

## ECONOMICS AND MARKETING

### RESUME

Une Comparaison économique entre une entreprise constituée d'exploitations familiales comptant chacune 95 pondeuses et les grandes entreprises conçues sur une échelle commerciale a montré que l'égypte jouit d'un avantage comparatif dans la production des oeufs de consommation, quel que soit le type d'entreprises fondées sur les souches de pondeuses. Toutefois, les grandes entreprises privées réalisent le taux le plus élevé de rentabilité et de rendement de l'investissement, suivies par la petite entreprise familiale (une éleveuse). Le type d'entreprise le moins efficace s'est avéré être l'exploitation de grande envergure appartenant à l'Etat ou au secteur public.

### RESUMEN

La comparación económica entre la empresa granja familiar que posee 95 gallinas ponedoras por granja y otras empresas comerciales de gran escala mostró que Egipto tiene una ventaja comparativa en la producción de huevos de mesa bajo todos los modelos de empresas de razas comerciales de ponedoras. Sin embargo, las empresas privadas de gran escala originaron la mayor rentabilidad y retorno a la inversión, seguidas por la empresa familiar de pequeña escala (una batería) y el modelo menos eficiente de empresa fueron la las empresas estatales o del sector público de gran escala.

### Zusammenfassung

Der ökonomische Vergleich zwischen den kleineren Familienbetrieben (durchschnittlich 95 Lege-Hennen je Betrieb) und anderen grossen Skalen kommerzieller Unternehmen zeigt, dass Agypten komperativen Vorteil hat in der Eierproduktion. Das gilt für alle Muster der kommerziellen Lege-Rassen in Agypten. Doch die grossen Skalen der privaten Betriebe erzielen den höchsten Gewinn und Ertrag pro Investitionseinheit, es folgen die kleineren Familienbetriebe (eine Batterie) und daran anschliessend die staatlichen Unternehmen.