AN ECONOMIC STUDY OF APPLICATION MODERN TECHNOLOGY IN AGRICULTURAL PRODUCTION

Egypt is considered the first one of under – developing countries which concerned using of modern technology styles to aim increase economic development both horizontally and vertically in the agriculture sector since the topic of this study is related to the vertical development, it has been confined to this sector whose development can be achieved technologically.

The problem of this study is decreasing production averages of grain crops (wheat, maize, rice) in sharkia governorate for it is considered one of the main governments whish produce these crops.

The study aim at identifying the effect of the economic efficiency in grain crops production by using modern technology. The study aimed to know the economic efficiency of the current applied technology and the effects of the different technology bundles on the productivity and the net return of cereal crops. The study aims at identifying the kind of technological groups whish using in grain crops production.

The study has used both descriptive and quantitative statistical analysis for the available data such as the one way analysis (ANOVA) of variance, linear regression for the available data, And time series equations. The study has used production function of kind of KOBB – DOGLAS. The study was based on both published and unpublished data available in the ministry of agricultural.

The research report consisted of five main parts in addition to the introduction, the problem of the study, its significance research method, sources of data and two abstracts one in Arabic and the other in English, It also included a bibliography comprising both Arabic and English references and a number of appendices.

The first part deals with the theoretical framework and previous related studies. It consisted of three chapters, one was devoted to the theoretical framework whish comprised a definition of the technological changes, classification of technological types, the effect of technological changes on productivity, costs of production and income agricultural.

The researcher defined technology on the practical was cooperation between the government, farmer in the same time to increase, progress agricultural production and welfare since the practical application for modern production tools will be achievement the most use to production resources.

The second chapter dealt with the findings of the previous studies in the field of technological progress in Egyptian farming whish was the starting point of this study

Whereas The third chapter represents the organization, responsible centers whish work in agricultural technology in Egypt.

The second part handle the technological changes in the Egyptian agricultural. it consisted of two chapters, the first one was dealt development of agricultural technology. whereas the second chapter study was dealt the effect of agricultural technology development on the production main crops .

The third part represents the technology efficiency in producing the sample agricultural main grain crops. it consisted of three basic chapters, the first one was dealt the sample survey of these study. while the second chapter was dealt the statistical estimation for the production function of sample crops on sharking governorate. finally the third chapter was dealt the measures the effects of technology change on the production of the sample crops.

The fourth part represents the effect using of modern technology on the production performance levels of sample crops . it consisted of three basic chapters, the first one concentrated on the comparison between the different technological bundles on the sample crops . while the second chapter define the technology bundle in sample crops production, and the different levels of technology. finally the third chapter handle the effect of technological changes on the most important economic variables of the sample crops .

Finally The fifth part represents the economic effects of the modern technology on the sample crops production through three basic chapters, the first one study the effect of the modern technology on the costs of production sample crops while the second chapter study the measurements of economic efficiency of the modern technology on production of the sample crops whereas the third chapter represents the effect of the modern technology on the measurements of economic efficiency of sample crops.

The Recommendations:

- 1 It is necessary to provide improved seeds with reasonable prices.
- 2 Not using the seeds in cultivating more than one time.
- 3 The farmers must be guided to know the importance of the new agricultural machines in reducing the loss in production.
- 4 Increasing the role of government to provide farmers with services, control the seeds companies and provide in centimes to agricultural engineers and farmers.
- 5 Increasing the role of agricultural extension to provide information about the technological bundle and its advantages and its effects on the increase in production.
- 6 It is necessary to gave the technical data and agricultural recommends from agricultural center and best quantity to enough all farmers.
- 7 It is necessary to invention agricultural technological which to suit of envelope Egyptian agricultural and gave the freedom to farmer to choice best technology.
- 8 Gave the chance to special companies in set up machine serves center to help all farmers reasonable prices.

- 9 Help the scientific center which work in agricultural technology in Egypt to increase researches with application this researches in the land.
- 10 The farmers must be guided to best use in consumption from main crops .
- 11-The farmer return will be increased by using all secondary production from main crops to and industry Selage which use in eat farm animals.

APPROVAL SHEET

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By
ALAA ALI ABD EL-SALAM NEMA
B. SC. Agricultural co-operation, Sciences, 1995

Thesis

Submitted in partial fulfillment of the requirements for the degree of master in Agricultural sciences (Agricultural Economic)

2006

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In

Agricultural sciences (Agricultural Economic)

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