SUMMARY

The vegetables play a very important role in the Egyptian economic component and this results from the vegetables production contribution in the financial value for the agricultural production, because if we value the vegetables for giving 1299 million pounds, it will act as 16.7% from the fanancial value for the agricultural income which appreciated as 7780 million pounds in average tine between (1987-1991).

Although the vegetables crops are important economically, the vegetable production in A.R.E., in general, and in Quliobia governrate in particular, faces many problems and obstacles. From them, is the frequency of fadan production from year to another from time to time. This matter affects in a way or another the Egyptian production of vegetables which leads to shortage and hanging in the amounts introduced. In addition, most of the agricultural imports may not be distributed between the farms that are different in kinds and volumes in a way which gives more production from the limited imports for vegetables production and which achieves a high quality production for these farms. All these things cause a kind of deflect in the economical relationships between the inners and the outers of the production liberty in the vegetable farms of various volume. This leads to not to take any right production decisions concerning the use of different quantities of some productive elements for the most important crops of vegetables in Qulioubia.

For this case, this research is put to study the productive quality for certain vegetables in Qulioubia. We can achieve this through several subaims known as follows : The study of geographical distribution for the productive areas of vegetables in Qulioubia, the recognition of the most important productive centers for vegetable crops, also the recognition of the centers which have a productive quality or the relative distinction for these crops adding to them the evaluating of physics production liberties for some vegetable crops of various area categories and this for determining the relation between the imports used in one side and the physic production from another side for knowing how each import contributes in the physic production quantity. Besides, these must be a kind of indicating the more imports that affect the production, and appreciating the relative importance for the fadan productive costs

items to know the most important productive elements which influence the fadan productive costs, lastly, there should be some studies for the economical quality measures to some crops of different distances.

The study includes four main chapters, an introduction of the studying problem, its aims, the bare method, and the plant sources. The first chapter discusses the thesritical frame and the important results of the previous studies as they are the first start of every study.

As for the second chapter, it is about the development of the fadan production and the area, and about the total production for the three crops of tomatoes, cabbage, zucchini) and for these different crops, each separately (winter crops - summer crops - nile crops) during the period (1984-1993). The important results were as follows:

Firstly : for the tomatoe crop, the results of the general timing study refer to minimizing the cultivated area of tomatoe in A.R.E. with an average between - 0.019% to -2.5% from the average of the cultivated area for the whole and the nile crops on respect, whereas the cultivated area of tomatoes rises with a yearly average of 0.32% and 1.4% from the average of the cultivated area in the republic for both of the winter and the summer crops. But for the cultivated area of tomatoes in Qulioubia, it decreases with an average of -9.7%, -0.18%, -8.1%, -21.5% from the average of the cultivated area in the governrate for the whole crops, for the summer and winter ones, and for the nile crops respectively.

Regarding the fadan production of tomatoes crop in A.R.E. there is an increase in the fadan production for the whole, the winter the summer, and the nile crops with an average of 2.9%, 2.5%, 3.6%, 2.6% a year. This fadan production also increases in Qulioubia for the whole, the winter, the summer, and the nile crops with an average of 2.04%, 3.7%, 1.4%, 6.1% from the fadan production average.

As for this ratio in A.R.E. it is : 2.6%, 2.6%, 4.8% from the average of the total production, while, the total production of the nile crops decreases with an average of -0.412% of the total production. The total production of this tomatoe crop in Qulioubia with an average of -7.5%, -16.2%, -6.5%, -15.6% from the average of the total production of crops in summer, winter and nile.

Secondly, for the cabbage crop, the study of time directions declares that the cultivated area of cabbage in A.R.E. decreases with an average of -0.36%, -4.4% a year from the cultivated area for the total, and the nile crops respectively. Meanwhile the cultivated crop in winter and summer increases with an average of 0.9%, 3.3% from the cultivated area respectively. The cabbage cultivated area in Qulioubia decreases with a yearly average of -6.2%, -2.8%, -0.8%, -13.7% from the average of the cultivated area totally, in summer, in winter and in the nile. The study of general time direction of fadan production for cabbage in A.R.E. shows an increase in the total, summer, winter and nile crops with a yearly average of 1.02%, 0.73%, 3.5%, 1.05% from the fadan production average respectively. In Qulioubia, the cabbage fadan production riscs also for the different mentioned crops with an average of 3%, 2.9%, 1.8%, 2.6% a year from the fadan production average.

The total production of cabbage also increases in A.R.E. with a yearly average of 0.69%, 1.6%, 7% from the total average of the different crops. At the same time the total production of the nile decreases with an average of -3.3% from the total production. Concerning Qulioubia governrate, the total production for cabbage, and the nile crops decrease with a yearly average of -3.02%, -19.6%. From the total production average. The whole production increases for the winter and the summer crops with a yearly average of 0.081%, 1.4% from the total production average respectively.

Thirdly, as for the zucchini crop, the study of general time direction reveals that the cultivated land of zucchini increases with a yearly average of -1.8%, -0.077%, -0.351%, -8.5% from the cultivated area of total, winter, summer, and nile crops, whereas the cultivated land in Qulioubia decreases totally, for winter, for summer, and for nile with a yearly average of -15.6%, -6.2%, -16.3%, -33.7% from the cultivated area respectively.

Speaking about the zucchini fadan production in A.R.E., it minimizes with a yearly average of -1.6%, -2.2%, -7.9%, -3.2% from the fadan production average regarding the total, the winter, the summer, and the nile crops. For this crop in Qulioubia, the average rises with a percentage of 1.6%, 2.7%, -.201%. This as for the average of fadan production totally, in winter and summer, whereas the nile crops production decreases with a yearly average of 0.024% from the fadan production average.

As seen from the study of general time direction, the total production of zucchini in A.R.E. decreases comparing with the whole, the winter, the summer, and the nile crops with an average of -3.5%, -2.2%, -1.1%, -11.7% from the total production respectively. In Qulioubia, the total production of zucchini decreases too. It decreases compared with the whole, winter, summer, and the nile crops with an average of -14.7%, -3.9%, -16.6%, -34.4% a year respectively.

The third chapter also shows the way to take a part off a whole which continuous the choice of study crops according to the measure or the ratio of cultivated area for each crop to the total crop areas of cultivated vegetables in the governrate. All this, and the crops of tomatoes, cabbage, and zucchini have been chosen, and Qulioub center is the aimed place for tomatoes and cabbage. But Khanka center is for zucchini. The governrate chooses these two places as they are the biggest centers of cultivating these crops. Other five villages have been chosen in Qulioub center for cabbage and tomatoes, and three villages from El-Khankah have been chosen for the zucchini crop.

To examine the parts of tomatoes, zucchini, and cabbage crops, the total parts reach about 360 farmers with a percentage of 7% from the total farmers of the three crops in these chosen centers. From them, 166 farmers for tomatoes, 110 farmers for cabbage and 84 farmers for zucchini in Khankah center.

These farmers are distributed on three areal categories. A showing application is designed, and its information is gathered through interviews with those farmers during the cultivating season in (1993.1994).

The fourth chapter includes two sections the first section cases about the production liberties of the study part in the agricultural season (1993/1994) by using the various linear model and the double logarethm model for the liberty of total fadan production and the area categories. (less than one fadan), (1 - > 2 fadans), (2 fadan or more) (the total of farmers parts) for each of the third study crops.

First of all, is the summer tomatoe crop. The linear picture of summer tomatoes production liberty shows the first areal category, the second areal category, and the total part. The objective effect is

as follows : The insectisites quantity (X_3), the first work hours (X_5), the number of seedlings (X_1) whereas the subjective effect appears for the 2 changes : The chemical fertilizers quantities (X_2) and the human work hours number (X_4). The linear picture results matched with the logarethm picture results. The linear picture has shown the objective effect of the third areal category for : The insectisites (X_3), the number of seedlings (X_1), and the chemical fertilizers quantities (X_2). While the subjective effect for the zchanges : The human work hours (X_4), and the first work hours (X_5). Also, the linear picture results come with the logarethm picture results.

Secondly, as for the winter cabbage crop, the linear picture of the liberty shows that the winter cabbage production of the first areal category was effective for : the insectisites quantity (X_3), the first work hours (X_5), and the number of seedlings (X_1), but the subjective effect appeared for : the chemical fertilizer quantities (X_2), and the human work hours (X_4). Here the linear picture results donot match with the logarethm picture results, where the logarethm picture shows the objective influence for the changes : the seedlings number (X_1), the first work hours (X_5).

This logarethm refers to the foundation of 3 changes of subjective effect on the total production quantity of winter cabbage : the insectsites quantity (X_3), the chemical fertilizers quantity (X_2), and the human work hours (X_4).

The liberty linear picture shows the winter cabbage of second areal category for the changes objective effect. The first work hours (X_5), the chemical fertilizers quantities (X_2), the human work hours (X_4), and the seedling (X_1), but the subjective effect appears in the insectsites quantity (X_3). These results come with the logarethm picture. As for the third areal category both of the linear and logarethm picture show the objective effect for all the changes involved in the productive liberty for the winter cabbage crop of this category. These changes are : insectsites quantities (X_3), the first work hours (X_5), the chemical fertilizers quantities (X_2), the human work hours (X_4), and the seedlings (X_1).

The linear picture of production liberty shows the total production of a winter cabbage part with its effectiveness for the following changes :

The insectsites quantity (X_3), the number of first work hours (X_5), the number of seedlings (X_1) and the chemical fertilizers quantities (X_2). The subjective effect appeared for the change of human work hours (X_4). The results of both the linear, and the logarethm picture come with each other.

Thirdly : As for the zucchini crops in the winter, the liberty linear picture showed the winter zucchini production of the first areal category, and it showed the effectiveness of the following :

The town fertilizers amounts (X_6), the human work hours (X_4), the chemical fertilizers amounts (X_2), but the subjective effect appeared in : The insectisites amount (X_3), the first work hours (X_5), the seeds quantities (X_1). But here the picture results of linear picture do not come with the results of the logarethm one where the liberty logarethm picture shows the winter zucchini production of first areal category, and the total of the effective part for the coming changes. The chemical fertilizers quantities (X_2), the human work hours (X_4), besides, the logarethm picture results refere to the foundation of a changes of subjective influence on the amount of the total production of zucchini in winter are : the town fertilizers quantity (X_6), the first work hours (X_5), the seeds amounts (X_1), and the insectsites (X_3).

The liberty linear picture also shows the winter zucchini production of the second areal category has the objective effect for the changes : the town fertilizers amount (X_6), the human work hours (X_4), and seeds quantities (X_2), the first work hours (X_5), the insectsites quantity (X_3). The results of both the logarethm and the linear picture donot come together. The logarethm picture shows the effective side for the changes of : the human work hours (X_4), the chemical fertilizers quantities (X_2), but the subjective effect appeared in : the town fertilizers (X_6), the seeds quantity (X_1), the first work hours (X_5), and the insectsites quantity (X_3).

As for the third areal category, it shows both of the logarethm and the linear pictures with an effective side for the coming changes : The first work hours (X_5), the chemical fertilizers quantity (X_2), the human work hours (X_4), the seeds quantity (X_1). The subjective effect comes with the changes of : town fertilizers quantity (X_6) and the insectisites quantity (X_3).

But the second section in the fourth chapter, attracts the attention of the fadan production costs items for the 3 study crops.

It was clear that the most effective productive elements on the changeable fadan production costs was the human work, then the chemical fertilizers, then the insectsites, then the first work and the seedlins at last. This for the summer tomatoes crop, but the cabbage crop in winter, it was the most effective elements on the fadan production costs. The change are the human work, then the insectisites then the chemical fertilizers, then the first work and the seedlings lastly.

And by appreciating the total production costs, it shows an opposite relationship between the total production costs for the fadan and the total production by tons, whereas, it also shows an increasing relationship between the ton production and the fadan production costs, and this happens when we appreciate the production costs relations for both of the tons and the three crops of study.

As for the winter zucchini crops the insect sites were the most effective in production on the changeable fadan production costs, then the human work, then the chemical fertilizers, then the town fertilizers, the first work and the seeds finally. By using some economical quality measurements like the pure profit from cultivating the fadan, the pare profit of the pound invested in the season, or the pure profit of the invested pound in the whole year. If these above show the economical quality has achieved the third areal category for the summer tomatoes crop, the winter zucchini or the second areal category for the winter cabbage.

PRODUCTIVE EFFICIENCY OF SOME VEGETABLE CROPS IN QALYOUBIA GOVERNORATE

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