

Potentials of the Economic Expansion in the Production and Export of Egyptian Garlic

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Abstract: The Current research aim is to identify the empowered to increase the production and export of Egyptian garlic as one of the most important export crops, in order to achieve that, studying the status quo for production of garlic and specific factors of production, in addition to examine the main importing markets and factors affecting them have to be considered. The study indicated that the import of garlic reached its lower quantity during the period (2007-2009), representing the relative importance of about 1.5% (282 thousand tons) of the total domestic production of garlic. Moreover, the study demonstrated that, the most important factors affecting the area planted with garlic are the farm price and productivity of garlic. Furthermore, the net revenue per acre of onion crop the rival of garlic cropping in the agricultural cycle. The results clarify that, the EU is one of the most important importers of fresh garlic Egyptian, with relative importance estimated at 70.8%. Whereas, Germany and Italy are the most important markets for fresh garlic, they imported 27.2% and 20.1%, respectively. Nevertheless, the Arab free trade's zone is the most important economic bloc's importers of Egyptian garlic powder with relative importance of about 46.7%. The market of Syrian and Moroccan markets are the most important importer of Egyptian garlic powder with relative importance of 25.5% and 20.4%, respectively, during the study period. The results showed that, there is no benefit from preferences granted to agreements with many of the various economic blocs, especially EU countries. Furthermore, the most important factors affecting the exports of garlic is the export price and the average export price of the world. As it turns out that, the most important problems facing producers and exporters of Egyptian garlic is the lack of high-productivity of garlic and the prices of seedlings available to farmers, and lack of interest sorting out and grading, as well as the lack of the adequate information storage process, which leads to increase losses and higher marketing costs. In addition to, the exploitation of producers and traders, especially small-scale farmers and get their produce at prices less than 40% of the price of the consumer. Therefore, the study recommends that, the need to develop high-yielding varieties and qualities of garlic (i.e. Chinese), which accepted by Egyptian consumer. With the work on the provision of instructional information and the delivery of the farms, and open new markets for Egyptian garlic. In addition to the removal of all obstacles hindering the export process and in particular export Egyptian garlic.

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1. Introduction:

After Egypt signed several international agreements the most important of is the General Agreement on Tariffs and Trade (GATT) and participating European. The Egyptian agricultural sector has become no longer the traditional sector, which produces the raw material for industry and source of employment and income. However, it has come to rely on comparative and competitive advantages of the ability to cope with the existing economic blocs in order to develop the Egyptian agricultural exports and the increase in the state of the foreign currency, needed to finance economic development projects.

Care must be taken to the garlic crops to increase exports, especially from the radiator and

garlic, which adds value-added exports to the Egyptian national economy. In spite of the importance of the garlic crop in Egypt, whether at the levels of domestic consumption or agricultural exports, but with the total area planted. A single loader is estimated at 30.38 thousand acres represent about 0.46% of the total area Lug winter average for the period (2007-2009). Also, appreciates Egypt's exports of garlic, about 2.889 million dollars, representing about 0.14% of the total value of Egyptian agricultural exports, amounting to about 2064 million averages for the period (2007-2009).

2. Research problem:

Despite Egypt's accession to some of the

economic blocs and the conclusion of many international conventions, along with the enjoyment of the status of productivity distinct in the production of garlic, but the value of Egyptian exports of the crop of garlic remains low. In addition to the Egyptian exports of Garlic fluctuate from year to year, Which suggests that, the reality of production and export of garlic crop is facing many difficulties and constraints (i.e. the production and export), which lead to weak competitiveness in a global market.

The Aim of the Research Subject: The research aim is to identify empowered to increase domestic production and exports of garlic to both types of fresh, chilled, and that through the study of the status quo for the production of Egyptian garlic, as well as study the most important markets of importing within the economic blocs, the various factors affecting the energy import to those markets. As well as the seasonal distribution of monthly study to determine the best times for production and export of Egyptian garlic. In addition to the identification of production and export problems facing producers and exporters of Egyptian garlic and propose appropriate solutions.

3. Methods and data sources:

The research depends mainly on published and unpublished secondary data, issued by the Central

Agency for Public Mobilization and Statistics, Ministry of Agriculture and Land Reclamation, and the Food and Agriculture, in addition to the field data collected from some producers and exporters of Egyptian garlic. To achieve the aim of this research method were used descriptive statistics and analytical method, where it depends up on the gradual regression to identify the most important factors affecting some of the variables or economic phenomena related to the subject of the study.

4. Results and discussion:

Garlic is grown in the winter loop that directs production for export has grown garlic alone or loaded on winter crops.

Table (1) shows that, the total cultivated area of garlic is 30.38 thousand feddan, represent single garlic to about 77.3% and the average for the period (2007-2009). The estimated total domestic production of garlic, the most trustworthy winter (the production from February to June) is about 282 thousand tons a solo production which about 79.1%. The focus of the production of such loop in the governorates of Minya and Beni Suef, as their production represents about 39% and 38.8% respectively of the total production of winter garlic solo. Also appreciates the productivity of garlic Hassan added each solo and the loader about 9.5, 8.5 tons, respectively.

**Table (1) domestic production of garlic during the period (2007-2009)
(Area in thousand feddan, productivity in tons per feddan, and production in thousand tons)**

| year | Single garlic | | | Loaded garlic | | | total | | |
|----------------|---------------|--------------|------------|---------------|--------------|------------|-------|--------------|------------|
| | area | productivity | production | area | productivity | production | area | productivity | production |
| 2007 | 24.85 | 9.44 | 235 | 8.1 | 9.18 | 74 | 32.95 | 9.38 | 309 |
| 2008 | 28.1 | 9.21 | 259 | 9.8 | 8.3 | 81 | 37.9 | 8.97 | 340 |
| 2009 | 17.5 | 10.01 | 175 | 2.8 | 7.51 | 21 | 20.3 | 9.66 | 196 |
| Average | 23.48 | 9.5 | 223 | 6.9 | 8.5 | 59 | 30.38 | 9.27 | 282 |

Source: Compiled and calculated from:

Ministry of Agriculture and Land Reclamation, Economic Affairs Sector, Bulletin of The Agricultural Statistics, various issues.

Response to presentation of the area cultivated with garlic:

This section discusses the study of the relationship between the cultivated area of garlic crop in a given year as a dependent variable and the factors supposed to impact upon, embodied in the average price farm per unit of the output garlic pounds, and the unit price of exports of garlic, and the costs of production acres of garlic, and net yield per feddan of crop and crop garlic rival the session (onion, clover and alfalfa sustainable forestation, winter wheat, tomato), in addition to variable productivity and that the period of delay for the period (1998-2009) was

estimated by the correlation matrix between these variables to each other and between them and the dependent variable, with the exclusion of variables, including a strong correlation with the introduction of the most powerful variable is closely dependent variable.

It has been shown from the results of analysis of the relationship estimated for the response to changes in the area of garlic using the method of gradual regression Stepwise Regression models that best representing are the relationship, in terms of statistical and economic equation is the following:

$$\ln \hat{Y}_i = 1.4 + 0.556 \ln X_{1,i-1} - 0.136 \ln X_{2,i-1} + 0.472 \ln X_{3,i-1} \quad (5.39)** \quad (4.33)**$$

(6.11)**

Where:

\hat{Y}_i = estimated area of the garlic crop in thousand feddan in the year i

$X_{1,i-1}$ = farm price per unit of output garlic pound in the previous year (i -1)

$X_{2,i-1}$ = net return per feddan of crop onions pound in the previous year (i -1)

$X_{3,i-1}$ = productivity in tons of garlic in the previous year (i -1)

I = 1,2, 12 (1998-2009)

-Figures in parentheses represent the value of (T) calculated

** : significant at 1%

The result shows that, the price of farm, productivity in garlic and net return per feddan for the onion crop in the previous year of the most influential factor on the area planted with garlic as the changes, they are responsible for about 69% of the changes in the component space. As can be seen, an increase in both price and farm productivity of the garlic by 10% leads to increase the area planted to the following year by about 5.56% and 4.72%, respectively. While, the decline in net return per feddan for the onion crop by 10% leads to increase the area of garlic, about 1.36%,

indicating the clear influence of farm price and productivity of garlic per feddan and onions on the net return on the cultivated area of garlic.

From the abovementioned discussion, it's obvious that the garlic cultivated area affected by farm prices, productivity and net return per feddan, which refers to the impact of price policy on the Egyptian agricultural production, as well as, the need to focus on devising high-yield varieties in increasing the productivity of garlic.

Profitable crop of garlic and crop competition has session:

Due to the growing crop of garlic most of the governorates of the Republic on the one hand, and being a crop of winter on the other hand, the winter crops, alternative competition is in Wheat, Broad Bean, Onion, Green Peas, Tomatoes, Squash, Barley, lentils, chickpeas, flax and sugar beet. It is clear from table (2) that, the net annual return of acres of garlic winter has occupied the second place, accounting for about 92.8% of his crop of Tomatoes winter average for the period (2007-2009). While more than in its yield of wheat and Clover and Broad Bean , barley, Green Peas, Lentil, sugar beets, lentils, chick peas, a crop that could replace the garlic in the crop composition, with the exclusion of wheat, sugar beet and broad bean to be considered a crop import important.

Table (2): Profitability of winter crop garlic and other competing crops in the same session, as an average of the period (2007-2009).

| crop | area | Cost | net return | Return/ cost ratio | net return in year | respectively |
|------------|-------|------|------------|--------------------|--------------------|--------------|
| Garlic | 23.5 | 4411 | 6812 | 2.54 | 16349 | 2 |
| Wheat | 2928 | 3016 | 3039 | 2.01 | 6078 | 9 |
| Clover T. | 1654 | 1627 | 5200 | 4.26 | 10400 | 5 |
| Clover T. | 417 | 940 | 2473 | 3.63 | 9892 | 6 |
| Broad Bean | 196 | 3034 | 1923 | 1.63 | 4615 | 12 |
| Tomatoes | 194.4 | 3996 | 8808 | 3.2 | 17616 | 1 |
| Onion | 99.1 | 3052 | 5926 | 2.94 | 14222 | 3 |
| Green Peas | 55.3 | 3154 | 3337 | 2.06 | 8009 | 7 |
| Barley | 88.1 | 2348 | 1136 | 1.48 | 2726 | 14 |
| Lentil | 1.8 | 2872 | 1787 | 1.62 | 5361 | 10 |
| Chickpeas | 8.7 | 2247 | 1102 | 1.49 | 3306 | 13 |
| Flax | 17.9 | 2388 | 2127 | 1.89 | 5105 | 11 |
| Sugar beet | 257 | 2341 | 3099 | 2.32 | 6198 | 8 |
| Squash | 27.6 | 2730 | 3664 | 2.34 | 10992 | 4 |

Source: Compiled and calculated from: Ministry of Agriculture and Land Reclamation, Economic Affairs Sector, Agricultural Statistics Bulletin, various issues (2007-2009)

Egyptian trade balance of garlic:

it is obvious from Table (3) that, the Egyptian trade balance of fresh garlic has achieved an annual surplus is estimated at 90 thousand dollars a year on average for the period (2007-2009). While, achieving a deficit estimated at 51 thousand dollars in the case of dried garlic. This achieves the Egyptian trade balance of garlic (fresh and dried) a surplus of about \$ 39 thousand dollars. The previous estimates indicate that, despite the increase in the value of Egyptian exports of fresh garlic, estimated at 4.037 million dollars in

2009. The Egyptian imports of garlic have doubled to 4.328 million dollars in 2009. This may be attributable to the increase of Egyptian imports of garlic to the consumer demand for the Chinese garlic, represents the value of 97% of the value of Egyptian imports of garlic as an average for the period of study. This indicates to the need to develop local varieties of garlic to suit the desire of the Egyptian consumers, with attention to quality items that are exported to foreign markets and work to increase productivity.

Table (3): Egyptian trade balance of fresh garlic and dried during the period (2007-2009)
(Value in thousands of dollars)

| year | exports | | imports | | trade balance | | Total trade balance |
|---------|--------------|--------------|--------------|--------------|---------------|--------------|---------------------|
| | fresh garlic | Dried Garlic | fresh garlic | Dried Garlic | fresh garlic | Dried Garlic | |
| 2007 | 1901 | 72.5 | 1695 | 95.6 | 206 | -23.1 | 182.9 |
| 2008 | 2489 | 54 | 2134 | 123.7 | 355 | -69.7 | 285.3 |
| 2009 | 4037 | 74.5 | 4328 | 134.7 | -291 | -60.2 | -351.2 |
| Average | 2809 | 67 | 2719 | 118 | 90 | -51 | 39 |

Source: Compiled and calculated from:

Central Agency for Public Mobilization and Statistics, National Information Center, unpublished data.

International markets for Egyptian exports of garlic:

The quantity exported annually from fresh garlic 4285 tons (2.809 million dollars) on average of the period (2007-2009). While, the exports of dried garlic are 64 tons per year (67 thousand dollars), thus the value of Egyptian export garlic, 2.876 million dollars, representing 0.14% of the total value of Egyptian agricultural exports, amounts to 2064 million during the same period.

1 - Fresh garlic: Table (4) illustrates the relative importance of import markets, Egyptian garlic average for the period (2007-2009). It is clear that, the EU is the most important economic blocs importing fresh garlic of Egypt, accounting for its markets to 3.033 thousand tons valued at 2.176 million dollars, representing 70.8%, 77.5% of the total quantity and value of Egyptian exports of fresh garlic during the study period. This is due to the prices increase of exports to EU countries than that of most imported blocs of Egyptian garlic. Germany and Italy are the most important importing EU countries of fresh garlic, accounting about 27.2%, 20.1% respectively of the total Egyptian exports fresh garlic representing about 38.4%, 28.4% of total EU imports of fresh Egyptian garlic, respectively. This represents the imports of the Netherlands, France and the United Kingdom to 11.4%, 5.8%, and 2.2% of the amount of Egyptian exports of fresh garlic. While the value of imports of those countries about 20.2%, 7% and 3.9% of the value of total exports of fresh garlic for the average Egyptian study.

Data also indicates that, the Arab free trade zone ranks as a second among the economic blocs, as markets absorb about 822 tons, (291 thousand dollars), representing about 19.2% and 10.3% of the total quantity and value of Egyptian exports of fresh garlic during the study period. The Syrian Arab Republic, Tunisia, Morocco and Libya are the most important Arab countries imported garlic of Egypt, accounting for their markets at 10.7%, 2.3%, 2.2% and 1.9% respectively of the total Egyptian exports of fresh garlic and about 55.6% 12.3%, 11.4%, 9.7% of the region's import's Arab trade of fresh garlic of Egypt, respectively, during the study period. It is noted that, the low average export price for Arab States accounting for nearly half of the average export price of fresh garlic Egyptian EU countries.

2 - Dried Garlic: Studying the relative importance of import markets of dried garlic as shown in table (4) that, the Arab region is the most important blocs absorbed the Egyptian exports of dried garlic, accounting for about 23.19 million tons valued at approximately \$ 17.46 thousand dollars, representing about 46.7% and 26.1% respectively of the total quantity and value of Egyptian exports of dried garlic during the study period. The Syrian Arab Republic and Morocco are most important importer Arab States for importing dried garlic estimated at 25.5% and 20.4% of the total Egyptian exports of dried garlic, respectively, and about 54.6%, 43.7% of the total imports of the Arab region of the Egyptian dried garlic.

The EU countries ranked as the second among the most important block's absorption of Egyptian exports of dried garlic, accounting for about 20.16 million tons valued at approximately 40.9 thousand dollars, representing about 40.7% and 61% respectively of the total quantity and value of Egyptian exports of dried garlic during the study period. Germany, Italy, Belgium are the most important importer of Egyptian dried garlic within the

European Union by an estimated at about 18.5%, 14.1% and 7.6% of the total exports of dried garlic of Egypt, respectively, and about 45.4%, 34.7% and 18.6% of the amount of imports of the EU from the Egyptian dried garlic. It is estimated that the marked reduction of the average export price of garlic powder to the Arab region as it represents only about 38.8% of that of EU countries.

Table No. (4) Geographical distribution of Egyptian exports of fresh garlic and dried of their stability as an average for the period (2007-2009) (Quantity in tons and value in thousands of dollars and the price in dollars per ton)

| CONTRIES | fresh garlic | | | | | dried garlic | | | | |
|--------------------|--------------|------|-------|------|-------|--------------|------|-------|------|-------|
| | Quantity | % | value | % | price | Quantity | % | value | % | price |
| Germany | 1164 | 27.2 | 260 | 9.2 | 223 | 9.16 | 18.5 | 19.49 | 29.1 | 2128 |
| Italia | 861 | 20.1 | 802 | 28.6 | 932 | - | - | - | - | - |
| Netherlands France | 488 | 11.4 | 568 | 20.2 | 1163 | 7.0 | 14.1 | 10.64 | 15.9 | 1327 |
| England | 251 | 5.8 | 196 | 7.0 | 780 | - | - | - | - | - |
| Belgika | 93.4 | 2.2 | 111 | 3.9 | 1188 | 0.25 | 0.5 | 1.04 | 1.6 | 4160 |
| Spain | 82.8 | 1.9 | 92 | 3.3 | 1111 | 3.75 | 7.6 | 9.73 | 14.5 | 2594 |
| others | 63.9 | 1.5 | 117 | 4.2 | 1828 | - | - | - | - | - |
| | 28.9 | 7.0 | 30 | 1.1 | 1038 | - | - | - | - | - |
| EU | 3033 | 70.8 | 2176 | 77.5 | 717 | 20.16 | 40.7 | 40.9 | 61 | 2029 |
| Syrian | 457.2 | 10.7 | 113 | 4.0 | 247 | 12.67 | 25.5 | 7.39 | 11.0 | 583 |
| Syrian | 101 | 2.3 | 29.3 | 1.0 | 291 | - | - | - | - | - |
| Morocco | 94 | 2.2 | 83.6 | 3.0 | 889 | 10.13 | 20.4 | 9.42 | 14.1 | 930 |
| Libya | 79.7 | 1.9 | 20.1 | 0.7 | 253 | - | - | - | - | - |
| Lebanon | 34.6 | 0.8 | 5.9 | 0.2 | 171 | 0.25 | 0.5 | 0.55 | 0.8 | 2180 |
| Sudian | 24.1 | 0.6 | 21.6 | 0.8 | 896 | - | - | - | - | - |
| Suidia | 9.9 | 0.2 | 5.9 | 0.2 | 597 | - | - | - | - | - |
| Oman | 1.9 | 0.04 | 1.2 | 0.04 | 844 | 0.14 | 0.3 | 0.1 | 0.2 | 685 |
| others | 19.6 | 0.5 | 10.4 | 0.4 | 531 | - | - | - | - | - |
| Arab region | 822 | 19.2 | 291 | 10.3 | 354 | 23.19 | 46.7 | 17.64 | 26.1 | 787 |
| Others CONTRIES | 430 | 10 | 342 | 12.2 | 795 | 6.25 | 12.6 | 8.64 | 12.9 | 1404 |
| Total exports | 4285 | 100 | 2809 | 100 | 657 | 64 | 100 | 67 | 100 | 1351 |

Source: Compiled and calculated from:

Central Agency for Public Mobilization and Statistics, National Information Center, unpublished data.

Seasonal distribution of monthly Egypt's exports of fresh garlic:

Study the monthly distribution of the garlic Egyptian exports is important to identify factors that would increase the competitiveness of garlic in the Egyptian foreign markets, represented in the export prices and good quality and appropriate to the taste of the consumer and timely manner. study of the monthly distribution of the fresh garlic Egyptian exports during the period (2007-2009) shown in Table (5), indicates that, the months of March and April occupies the summit-month export of fresh garlic with a relative importance estimated at 43.25%, 13.33%, respectively, and then came the months of November and December ranked in the following relative importance of about 8.05%, 8.77%. Also found that the export price for fresh garlic during the months of February and April, May and September, amounting

to about 1029, 891, 821 and 913 dollars per ton representing about 157%, 136%, 125% and 139% respectively of the average export price of the annual fresh garlic, amounting to 656 dollars per ton as average for the study period. This may be due to the increase demand for Egyptian garlic in the EU market at this time of the free markets of European production. The months with lower exports of fresh garlic in June, August and October with relative importance estimated at 1.92%, 2.5% and 2.18%, respectively. As noted in the same table the lower amounts of exported fresh garlic through the month of February in spite of growing demand from European Union countries at this time, which requires the need for early in the cultivation of garlic to the possibility of processing garlic post-production for the export operation especially for the EU during the months of February to April for the benefit of the customs

exemptions granted to Egypt through a partnership agreement in Europe.

Table (5) seasonal distribution of monthly average of Egyptian exports of fresh garlic and dried during the period (2007-2009). (Quantity in tons, and the price in dollars per ton)

| The month | fresh garlic | | | dried garlic | | |
|-----------|--------------|-------|-------|--------------|-------|-------|
| | Quantity | % | price | Quantity | % | price |
| January | 37.4 | 0.87 | 776 | 0.6 | 1.21 | 2820 |
| February | 169.3 | 3.95 | 1029 | 0.25 | 0.51 | 4128 |
| March | 1853.3 | 43.25 | 554 | 14.5 | 29.23 | 610 |
| April | 571.1 | 13.33 | 891 | 7 | 14.12 | 1498 |
| May | 288 | 6.72 | 821 | 3.75 | 7.56 | 2564 |
| June | 82.3 | 1.92 | 642 | - | - | - |
| July | 193.3 | 4.51 | 743 | 13 | 26.21 | 485 |
| August | 107.3 | 2.5 | 421 | 0.14 | 0.48 | 693 |
| September | 169.1 | 3.95 | 913 | 0.26 | 0.52 | 5738 |
| October | 93.6 | 2.18 | 735 | - | - | - |
| November | 345 | 8.05 | 455 | - | - | - |
| December | 375.3 | 8.77 | 532 | 10 | 20.16 | 1343 |
| Total | 4285 | 100 | 656 | 49.4 | 100 | 1351 |

Source: Compiled and calculated from:

Central Agency for Public Mobilization and Statistics, National Information Center, unpublished data.

Seasonal distribution of monthly Egypt's exports of dried garlic:

Data from Table (5) indicates that, the months March, July and December are the top months of the Egyptian dried garlic exports, with relative importance estimated at 29.23%, 26.21% and 20.16%, respectively. Then April and May months are ranked in the following rank with relative importance estimated at 14.12%, 7.56%, respectively. While, there is no export of Egyptian dried garlic in the months June, October and November. As for the export prices of dried garlic is observed to rise in the months of January, February, May and September as it represents the export price by up to 209%, 306%, 190% and 351% respectively of the average rate of annual export of dried garlic, of about 1351 states per ton.

From the above it is clear that, the amount of Egyptian exports of fresh garlic and dried to the EU countries did not cover the amount authorized for export during the period of time referred to in the Agreement. Therefore, it can increase that, the quantities exported from the production of Egyptian fresh and dried garlic is not incompatible with the production of the European market with garlic producers try to produce consumer items desired by the European international specifications, as well as the ability to price competition for the production of their competitors.

Factors affecting the quantity exported from Egyptian garlic through the period (1998-2008):

Study of the relationship between the quantity exported from Egyptian garlic thousand tons (\hat{Y}_i) and the factors which is supposed to impact upon, embodied in the total domestic production of garlic in thousand tones (X_{1i}), and consumption Local thousand tons (X_{2i}), and the average export price of garlic Egyptian dollar per tone (X_{3i}), and the average world export price (X_{4i}), and the average import price (to express the prices of their competitors garlic Egyptian those markets), the most important foreign markets, importing garlic Egyptian dollar a tone each unit (X_{5i} Germany, X_{6i} Italy, X_{7i} Netherlands, X_{8i} Syria) during the period (1998-2008). Using the method of gradual regression decline with various mathematical equations to know the most important factors affecting the quantity exported from Egyptian garlic as in the following equation:

$$\ln \hat{Y}_i = 6.01 + 0.08 \ln X_{1i} - 0.329 \ln X_{3i} + 1.203 \ln X_{5i} \quad R^2 = 0.98 \quad F = 123^{**}$$

$$(5.21)^{**} \quad (3.316)^{**} \quad (18.22)^{**}$$

It is noticed from the equation that there is an inverse relationship between the quantity exported from the garlic and its price, as well as a positive correlation between the quantities exported from Egyptian garlic and all the domestic productions of it, and the average import price of garlic German. This coincided with economic logic, that means that an increase in export price of Egyptian garlic by 10% leads to a decrease in the quantity exported from the garlic by about 3.29%, while the increase of the total production of Egyptian garlic and the average import price for Germany by 10% leads to increase the quantity exported from Egyptian garlic by 0.8% and 12.03%, respectively. This coefficient of determination was estimated at about 0.98, which means that 98% of the changes in the amount of Egyptian exports of garlic due to the changes in these factors during the study period.

Factors affecting the imports of the most important importer of garlic of Egypt during the period (1998-2008):

Imports of any country affected by a variety of factors, most notably population density and the average import price and domestic production of that State and the average world price in addition to the factors associated with the element of time. The research focused on the most important factors affecting the imports of the most important importer of garlic of Egypt and by using the style regression phased in pictures of various mathematical forms, and then choose the best models deal with the economic

logic and statistical, which illustrated in Table (6), shows the most important factors affecting the total quantity of Germany's imports are population density and the world price of garlic. The elasticity coefficient indicates that by increasing the population of Germany by about 10% lead to increased imports of garlic around 4.1%, as the increase in the world price by 10% leads to lower the amount of imports of Germany from garlic by 2.57%.

Regarding, the Italian market it has been shown that the average price of imports from Italy

Garlic is the most important factors affecting the imports of garlic from Italy since increased by 10% leads to a decrease in imports of garlic from the Italian by 5.2%. As it turns out, the direction of Italian imports of garlic to the increase in the future, as reflected in the reference time element. The coefficient of determination indicates that the change in the average price of imports from Italy, garlic and the time factor responsible for about 74% of the changes in the import of garlic from Italy.

Table (6) factors affecting the total imports of garlic for the most important importer of Egyptian garlic during the period (1998-2008)

| CONTRIES | | R ² | Significant |
|-------------|--|----------------|-------------|
| Germany | $\text{Ln}\hat{Y}_i = 8.17 + 0.41 \ln X_{1i} - 0.329 \ln X_{2i}$ (3.209)** (2.855)* | 0.56 | ** |
| Italia | $\text{Ln}\hat{Y}_i = 13.82 - 0.58 \ln X_{3i} + 0.09 \ln X_{4i}$ (2.62)* (4.06)** | 0.74 | ** |
| Netherlands | $\text{Ln}\hat{Y}_i = 20.1 - 1.58 \ln X_{2i} - 2.19 \ln X_{5i}$ (3.17)** (2.544)* | 0.59 | ** |
| Syrian | $\text{Ln}\hat{Y}_i = -52.3 + 2.89 \ln X_{3i} - 7.21 \ln X_{5i}$ (3.05)** (3.317)* | 0.80 | ** |

Where:

\hat{Y}_i = estimated value of imports of garlic to the corresponding state in thousand tons in the year i

X_{1i} = number of Germany's population in million inhabitants in the year i,

X_{2i} = world price in dollars per tonne in the year i

X_{3i} = Average import price of the state corresponding to the dollar per ton in the year i

X_{4i} = e factors associated with the element of time

X_{5i} = domestic production of the state in thousands of tons in the corresponding viewing i,

$i = 1, 2, \dots, 11$ (1998-2009)

-Figures in parentheses represent the value of (T) calculated

*: significant at 5%

** : significant at 1%

Source: Compiled and calculated from: Internet, www.fao. Org

The market for the Netherlands has shown that, the most important factors affecting the imports of garlic is in the domestic production of it and the average world price and in accordance with economic logic as an increase in the production of the Netherlands of garlic and the average world price has increased by 10% leads to a decrease in imports of the Netherlands by 21.9% and 15.8%, respectively. Also found that changes in the factors of production from the Netherlands and the average world price accounted for 59% of the changes in the total imports of garlic Netherlands.

Concerning the Syria market, it has been shown that, the most important factors affecting the imports of garlic in the Syrian production is the average price of imports of Syria garlic, with agreement by the economic logic as an increase in Syria's production of garlic and the average import price of garlic Syrian by 10% leads to a lack of imports Syria from about 72.1% and 28.9%, respectively. Moreover, found that changes in the

variables previous responsible for about 80% of the changes in the total imports of garlic Syrian.

From the foregoing it is clear the need to maintain the quantity of exported garlic to those markets with trying to penetrate new markets and work on the stability of the Egyptian garlic exports to Arab countries.

The most significant obstacles facing the producers and exporters of Egyptian garlic and proposed solutions:

The results of personal interviews of producers and exporters of garlic of Egypt that, there are many obstacles facing the process of production and export of the most important:

First: the productivity problems:

- 1 - High costs of production inputs such as fertilizers, pesticides, and are not available in a timely manner.
- 2 - The lack of high-yield varieties of garlic and the prices of existing seedlings.

3 - The lack of adequate information to the producers of new technological methods used in the production process.

Second: marketing problems:

1 - Low and fluctuating prices, pays producers to the instability of the area under cultivation of garlic.

2 - Not care of sorting out and grading, in addition to the lack of adequate information storage process, which leads to increased losses and higher marketing costs.

3 - Traders exploit the producers, especially small farmers and get their produce at prices less than 40% of the price of the consumer.

4 - Lack of marketing outlets in urban areas between the consumer and the product directly.

5 - The absence of the role of cooperative marketing and exploitation of the private sector lead to a decline in net revenue earned by the product, which leads to lack of interest in farmer's production process.

Third: export problems:

1 - High costs of air transport for vegetables, which reflected the Egyptian product to compete in international markets due to rising prices.

2 - difficult to measure the air spaces of the ship during the contract period the Egyptian source causing problems in lack of commitment by some exporters varied the amount of shipping that have been agreed with the importers.

3 - Adoption of the export process and the efforts of individual decisions, which might be characterized as random in some cases as a result of the absence of clear policies and updated information for exporters.

4 - Low level of processing and packaging of Egyptian products in comparison to other countries, which undermines the competitiveness of Egyptian products to foreign markets.

5 - lack of commitment by some exporters to the terms of the contract in terms of quality and specifications, which resulted from the work of some exporters deals casual and that the export of items not conforming to specifications of export, which affects the reputation of the Egyptian product.

6 - The large number of procedures and fees within the Egyptian ports - In the absence of coordination among agencies involved in the export - lead to the late arrival of export transactions, which displays the source of great loss.

Fourth: The solutions proposed for expansion in the production and export of Egyptian garlic:

It is proposed producers and exporters of garlic, a range of solutions including:

1 - Varieties of garlic are able to compete with Chinese garlic and prices commensurate with the Egyptian product.

2 - Expansion in the cultivation of garlic in the newly reclaimed land and free from chemicals.

3 - Product support instead of supporting the Egyptian consumer, which leads to increased production and rationalization of consumption.

4 - Apply the concept to production for export.

5 - Open marketing outlets in urban areas and linking them directly to producers of garlic.

6 - Provide an integrated database of accurate information for the benefit of all parties to the export activity.

7 - Support exporters through the establishment of a fund to offset the prices.

8 - Improving the level of processing and packaging to enhance the level of quality of garlic of Egypt, with a commitment to international standard specifications.

9 - Increasing the size and efficiency of the fleet of transport - air, land and sea - and the expansion in the use of refrigerated shipping containers, while working to support the operations of shipping the radiator.

10 - Development of mechanisms of the Egyptian commercial representation offices abroad, through improved methods of advertising for Egyptian products abroad.

5. Conclusion:

The results showed that, despite the comparative advantages enjoyed by Egypt in the production of garlic, but that the Egyptian exports which are volatile as well as a decrease in the exported quantities of dried garlic, which adds value-added is higher than the fresh counterpart to the Egyptian economy. The results showed no benefit from preferences granted to agreements with many of the various economic blocs, especially EU countries. As it turns out to increase the value of Egyptian imports of Chinese's garlic, which will lead to the depletion of most of the foreign currency obtained as a consequence of the export of Egyptian garlic. Therefore, the study recommends the need to develop varieties of garlic acquires Egyptian consumers desire an alternative to Chinese's garlic. In addition to, the possibility of export at a proper time for the consumer especially, to the European countries. In addition to the removal of all obstacles hindering the export process and in particular, export Egyptian garlic.

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