



## AN ECONOMIC STUDY OF THE DETERMINANTS OF GLOBAL DEMAND FOR SOME NON-TRADITIONAL EGYPTIAN VEGETABLE CROPS

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### ABSTRACT

Despite the increase in vegetable exports from 329 thousand ton in the year 2000 to about 3156 thousand tons in 2010, and the increase in vegetable local production from 14.8 million tons to 1019.5 million tons during the same period, the deficit in the agricultural trade balance has increased from \$ 11 million in the year 2007 to about \$ 18 million in 2012. However, it is noticed that exports of strawberries and artichoke the nontraditional crops, have increased from \$ 2.2 million in 2002 to about \$ 24.9 million in 2012. For this, the study endeavor to give special concerns to the two products particularly for their high average export prices which have tripled compared with potatoes and onions in recent years. The paper revealed that average exports of strawberries have increased to about 6391 ton and to about 32.6 thousand tons during the period 2005-2007 and 2008-2010 respectively. Belgian market absorbed about 19% and 23 % of the quantity exported during the two periods. Saudi Arabia imported about 11.3 % and 21.4 % of Egyptian strawberries. Egypt has a comparative advantage in producing strawberries as it came the second after Spain. Strawberries face strong competition and the penetration index was put at 0.002 and 0.779 during the two studied periods. This also noticed that Egypt has a relative price advantage compared with Holland, France, Belgium and Spain. For artichoke, the study shows a decrease of average exports from 14.8 thousand tons during the first period to about 11.7 thousand tons during the second period. Italian market absorbed about 64 % and 80 % of total artichoke. Egypt has a relative advantage in producing this crop compared with competing countries. Egypt also price advantage in artichoke compared with Spain, France, and Italy. The paper shows that determinants of total global demand of Strawberries as export to Saudi Arabia, relative price of

Saudi price and export price of Egypt and Spain. For artichoke, the determinants were production in Italy, France export price in addition to production and price ratio in French market. The first equation in the econometric model shows that per head consumption of strawberries increases by about 0.95 % with the increase in local production. The second equation in the model shows that per head consumption in important imported countries increases with the increase of per head local production, exchange rate, the increase of per head income in Germany. The study shows that Egyptian-European partnership agreement has its positive effect on strawberries exports. The third equation in the model shows that per head local production has increased by about 0.02 % , 0.07 % and 0.1% with the increase in per head local consumption in the last year and the decrease each of per head production in Italy and Russia in the last year, respectively. As for artichoke, the study shows in the first equation of the model that average per head consumption has increased by about 1.01 % , 0.01 % and 0.1% with the increase in local production and the decrease each of artichoke exports and Egyptian price, respectively. The second equation in the model shows that per head Egyptian export in important imported countries with the increase by about 1.1% , 1.2% , 1.8% , 2.1% , 4.7% with the increase each of export prices in France, Italy, Spain, exchange rate and per capita income in Germany , respectively. Per head of Egyptian export of artichoke has Also increased by about 0.97% , 0.2% with the decrease each of per head consumption in Egypt and export price of Egypt , respectively . The study showed a negative effect of Egyptian European partnership agreement and SPS treaty on artichoke exports. The third equation in the model shows that per head local production has increased by about 0.01 % , 1.8 % , 1.4% and 0.38% with the increase in per head local production in the last year and the decrease all of per head production in Italy , Russia and Greece in the last year , respectively.