

## **Economic Study for the Postharvest Loss from the Major Fruits' Crops in Fayoum**

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### **English Summary:**

The study focuses on three fruits' crops; mango, lemon, and grapes as important crops in Fayoum Governorate. The study aims at estimating postharvest losses from the three crops and determines the economic impact of these losses. As for mango, the estimated total quality supplied in Egypt as an average for the period 2001-2010 is 457 thousand tons, and the losses represent 12.43% of that quantity. With regard to Fayoum Governorate; the study estimated the postharvest losses of mango during the cropping season 2012-2013 as 380 kilograms per feddan represents 10.75% of the total production per feddan. The statistical analysis shows that the total production per farm is significantly increasing losses and the traditional packs for mango are negatively impacting the quantity of mangoes' losses. The adjusted R<sup>2</sup> refers that 64% of the changes in the quantity of losses are belong to the mentioned two variables. The reasons of losses are mentioned by growers as following; the height of the trees & lack of skilled labor during the harvesting stage and pest infections & unsuitable packs during the other stages. As for lemon, the estimated total quality supplied in Egypt as an average for the period 2001-2010 is 232 thousand tons, and the losses represent 6.69% of that quantity. With regard to Fayoum Governorate; the study estimated the postharvest losses of lemon during the cropping season 2012-2013 as 265 kilograms per feddan represents 4.6% of the total production per feddan. The statistical analysis shows that the total production per farm is significantly increasing losses. The main reason of losses during the harvest stage is mentioned by growers to be the pest infections.

As for grapes, the estimated total quality supplied in Egypt as an average for the period 2001-2010 is 1232 thousand tons, and the losses represent 12.6% of that quantity. With regard to Fayoum Governorate; the study estimated the postharvest losses of grapes during the cropping season 2012-2013 as 980 kilograms per feddan represents 8.99% of the total production per feddan. The statistical analysis shows that the total production per farm is significantly increasing losses and the traditional packs for grapes are negatively impacting the quantity of grapes' losses. The adjusted R<sup>2</sup> refers that 44% of the changes in the quantity of losses are belong to the mentioned two variables. The reasons of losses are mentioned by growers as following; over-matured production & lack of skilled labor during the harvesting stage and pest infections & wrong handling during the other stages.

The economic impact of postharvest losses can be realized when converting them to the equivalent losses of the resources. The study shows that the losses of land as a result of the loss of each crop are 820, 198, and 116 feddans respectively. The losses of water as a result of the loss of each crop are 7.91, 1.74, and 0.7 million cubic meters respectively.