# The Economic Importance of Tobacco Production

# in Syria

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### Abstract:

The research was conducted in the coastal region of the Syrian Arab Republic to demonstrate the economic importance of the tobacco crop as an important cash crop, by shedding light on its cultivation costs and the cash revenues obtained from it.

The results of the economic analysis showed that the average of annual net profit per acre was about 477.8 USD, with a profit rate of 50.8% of the total annual revenues, and 103.4% of the total annual costs. Whereas, the agricultural and economic productive efficiency reached 2.16 and 2.03, respectively, which indicates the efficiency of these agricultural projects. While the period of capital recovery was about 1.4 years only, indicating the ability of this type of crops to recover the invested capital within a short period.

**Keywords:** *Tobacco, economic efficiency, net profit, recovery period, Syria.* 

# I. INTRODUCTION

Tobacco, with its various types, is an economically important crop, especially in the coastal region, where its cultivation is concentrated. Because of its importance as a cash crop, the state created the General Organization for Tobacco, which supervises its cultivation and marketing. This crop also contributes to the economic development movement through the employment of capital, as the annual value of tobacco income in the Syrian national economy reached about 38 million USD [1]. Also, it contributes to raising the level of economic life through the employment of the workers, as about 37,000 families work in its cultivation, which leads to a reduction in unemployment rates on the one hand and excellent revenues for the state treasury on the other hand [2], [3].

Tobacco crop is one of the native varieties, which is grown in the coastal region. The area devoted to tobacco cultivation for the 2019-2020 season was about 5,500 hectares, which is the licensed area that farmers must adhere to.

The productivity of tobacco in Syria is one of the highest in the world, compared to the average productivity per hectare in Turkey, the Syrian productivity is higher by 64%, and it is higher by 57 % compared to the average productivity in Tanzania, which was among the ten largest global producers in 2017. Tobacco productivity in Syria is considered within the highest levels of productivity globally, according to the Food and Agriculture Organization FAO [6].

The importance of this research is because it deals with an important crop grown in the coastal area, and sheds light on the costs of its cultivation and the cash revenues obtained from it, and thus gives a clear idea of the efficiency of tobacco products from an economic point of view. So, the research aimed to:

1- Study the production costs (fixed and variable) for planting tobacco, estimating annual revenues from it.

2- The economic evaluation for the production of tobacco by calculating some economic indicators.

# **II. MATERIALS AND METHODS:**

The number of tobacco farmers in the Syrian coast reached about 1117 farmers during 2017-2018 [5]. By adopting 10% as the sample size, the number of farmers in the study sample reached 112 farmers distributed over the governorates of Lattakia and Tartous.

The data of this study were collected through a special form that monitored the field reality through a direct personal interview of tobacco farmers in the coastal area, and for a single period, which is the year 2019. The method of descriptive economic analysis was used in this study. Averages of the costs and productivity returns were adopted for a dunum of cultivated tobacco and different economic indicators that measures the efficiency of this type of project were used.

#### **III. RESULTS AND DISCUSSION:**

#### A. Investment costs (fixed):

The average of fixed costs (fixed capital) at the level of<br/>one acre of cultivated tobacco reached about (328.6) USD,<br/>while the average of annual fixed costs per acre was about<br/>(129.7)USD(Table1).

Table (1): The total and annual investment costs of an acre planted with tobacco in Syria

Fixed asset	total cost (USD)	Economic life (year)	The annual cost, USD (Annual depreciation)	The relative importance (%)
Metal arches	4.9	10	0.5	0.4
Plastic cover	3.3	2	1.7	1.3
A piece of	4.2	4	1.0	0.8

burlap				
Metal funnel	2.5	2	1.3	1
Dorsal pump	25.0	5	5.0	3.9
diesel pump, 3 inch	116.7	10	11.7	9
traction tube, 3 inch	33.3	5	6.7	5.1
pipes delivery	1.7	5	0.3	0.2
pipes, 2 inches	2.2	5	0.4	0.3
fuel tank	8.3	10	0.8	0.6
Paper shaping tools (obelisks)	1.8	3	0.6	0.5
Land rent	83.3	-	83.3	64.3
1- Total	287.2	-	113.3	-
2- incidental expenses (5%)	14.4	-	5.7	4.4
3- Total (1 + 2)	301.5	-	119.0	-
4- Interest on invested capital (9%)	27.1	-	10.7	8.2
Total investment costs (3+4)	328.6	_	129.7	100

Source: The table was prepared based on field survey data for the 2018-2019 season.

Table (1) shows that the cost of land rent came first in terms of the relative weight of fixed annual costs at a rate of (64.3%), followed by the cost of a 3-inch diesel pump at a rate of (9%), then interest on capital invested at a rate of (8.2%), followed by the cost of the 3-inch tube, at a rate of

(5.1%), then the incidental expenses at a rate of (4.4%) of the total annual fixed costs.

# B. Operating costs (variable costs):

The annual average of operating costs is about (332.3) USD per acre (Table 2).

Statement	The annual cost, USD	The relative importance (%)	
Organic fertilization	1.7	0.5	
Mineral fertilization	64.8	19.5	
Control	22.8	6.9	
Irrigation	4.2	1.3	
Preventing the growth of side branches	4.6	1.4	
Khaitan of doubt	11	3.3	
Fuels	3.7	1.1	
Total input costs	112.8	33.9	
acre cultivating	20	6.1	
Workers' wages	137.6	41.4	
Fee for hire for foliar fertilizer and control	20	6.0	
Total service supplies	177.6	53.5	
1- Total costs of production and service requirements	290.4	87.4	
2- incidental expenses (5%)	14.5	4.4	
3- Total costs $(1+2)$	304.8	91.8	
4- Interest on Capital (9%)	27.4	8.2	
Total operating costs $(3 + 4)$	332.3	100	

Table (2): Total operating costs (variable) per year per acre planted with tobacco on the Syrian coast.

Source: The table was prepared based on field survey data for the 2018-2019 season.

Table (2) shows that workers' wages came first in terms of the relative weight of variable costs, at a rate of (41.4%), followed by the cost of mineral fertilization by (19.5%), and the variable capital interest at a rate of (8.2%).

Accordingly, it is:

\* Capital invested = total investment costs + operating costs.

= 328.6 + 332.3 = 660.9 USD.

Taking the average productivity per acre into account, we find that the share of one kilo of tobacco in the invested capital is equivalent to about 1.74USD.

\* Annual production costs = annual depreciation + operating costs.

$$= 129.7 + 332.3 = 462$$
 US dollars / acre.

Taking the average productivity per acre into account, we find that the cost of producing one kilo of tobacco is equivalent to about 1.2 USD.

#### Annual revenue

Results indicated that the average production per acre of cultivated tobacco for the season 2018-2019 was about 380 kg/year, and by returning to the classification of production according to the degrees of quality and price of each type according to the data of the General Organization for Tobacco (excellent golden, excellent normal, good, medium, low). The results showed that acre production was distributed as follows:

30 kg excellent golden at 4.2 SP per kilogram.

185 KG excellent normal (Extra) at 3.1 USD per kilogram.

100 KG good, at 2.1 USD per kilogram.

55 kg medium at 0.95 USD per kilogram.

10 kg is low at 0.7 USD per kilogram.

So the average annual revenue (the value of total output) =  $(30 \times 4.2) + (185 \times 3.1) + (100 \times 2.1) + (55 \times 0.95) + (10 \times 0.7) = 126 + 573.5 + 210 + 52.3 + 7 = 968.8$  USD.

The results also showed that there are deductions that are deducted from the total amount resulting from the sale of the crop (fees, stamps) at a rate of 3% of the value of the crop, and thus the value of the deductions = 29 USD.

Therefore, the annual net income per acre = 968.8 - 29 = 939.8 USD.

This indicator is considered excellent, as the rate of profit to total costs is equivalent to about 103 USD for every hundred dollars paid annually.

#### C. Indicators of economic evaluation:

1- Average annual net profit = average annual revenue - annual production costs.

Taking the average productivity per acre into account, we find that the net profit per kilo of tobacco is equivalent to about 1.3 USD.

-2. Annual profit ratio to annual revenue = average annual net profit  $\div$  average annual revenue x 100 = 477.8  $\div$  939.8 x 100 = 50.8%, which is a good percentage in the field of agricultural investment as every 100 USD of revenue includes 50.8 USD net profit.

3- Recovery period of invested capital = invested capital  $\div$  average annual net profit.

 $= 660.9 \div 477.8 = 1.4$  years

It is a very good indicator compared to its counterpart in other investment sectors. The reason for the low recovery period is that the percentage of fixed costs is low compared to variable costs.

4-Farm production efficiency = average of annual revenue  $\div$  (total variable costs + annual depreciation) = 939.8  $\div$ (304.9 + 129.7) = 2.16

As the value of the variable costs represents the operating costs without adding the interest of the invested capital.

5- Total economic efficiency = annual revenue  $\div$  annual production costs.

=  $939.8 \div 462 = 2.03$ , which is more than one, which indicates the feasibility of the project, the ability of farmers to use fixed and variable capital, and also indicates the technical and economic efficiency of tobacco.

6- Profitability factor compared to invested capital = (annual net profit  $\div$  invested capital) x 100 = (477.8  $\div$  660.9) x 100 = 72.3%

This indicator is considered excellent, as the rate of profit to total investments is equivalent to about 72 USD for every hundred dollars invested in the production of tobacco.

7- Profitability factor compared to production costs = (annual net profit  $\div$  total annual costs) x 100 = (477.8  $\div$  462) x 100 = 103.4%

#### **IV. CONCLUSION**

Tobacco cultivation is considered one of the economic crops in Syria due to the good savings it achieves for farmers, and it is one of the important crops in the coastal region, and generates good profits in a short period, which encourages agricultural investment in this area. Accordingly, we recommend the continuation of government support for these agricultural projects, because of its great importance in continuing production and improving it in quantity and quality.

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