



# Agriculture in Eastern Ghouta

---

Current Situation Study

June 2015

# Syrian Economic Forum

The SEF is an innovative think tank dedicated to building a free, pluralistic, and independent homeland that rests on a strong economy to ensure a life of freedom and dignity for all Syrians. The organization will serve as an information resource for all matters relating to the Syrian economy, and its members will conduct economic research and publish scholarly reports. Beyond those attributes typically associated with a traditional think tank, the SEF will organize the private sector to advocate for the economic reforms needed in post-Assad Syria. The organization will develop policy proposals necessary for the birth of a free market economy that upholds equal opportunities of access for the welfare and prosperity of all Syrians. The days are coming when a free Syria will be governed by laws and not men, and the SEF will be at the forefront of economic restructuring that will restore the status, dignity, and rights of the Syrian homeland and people.



All rights reserved © Syrian Economic Forum,

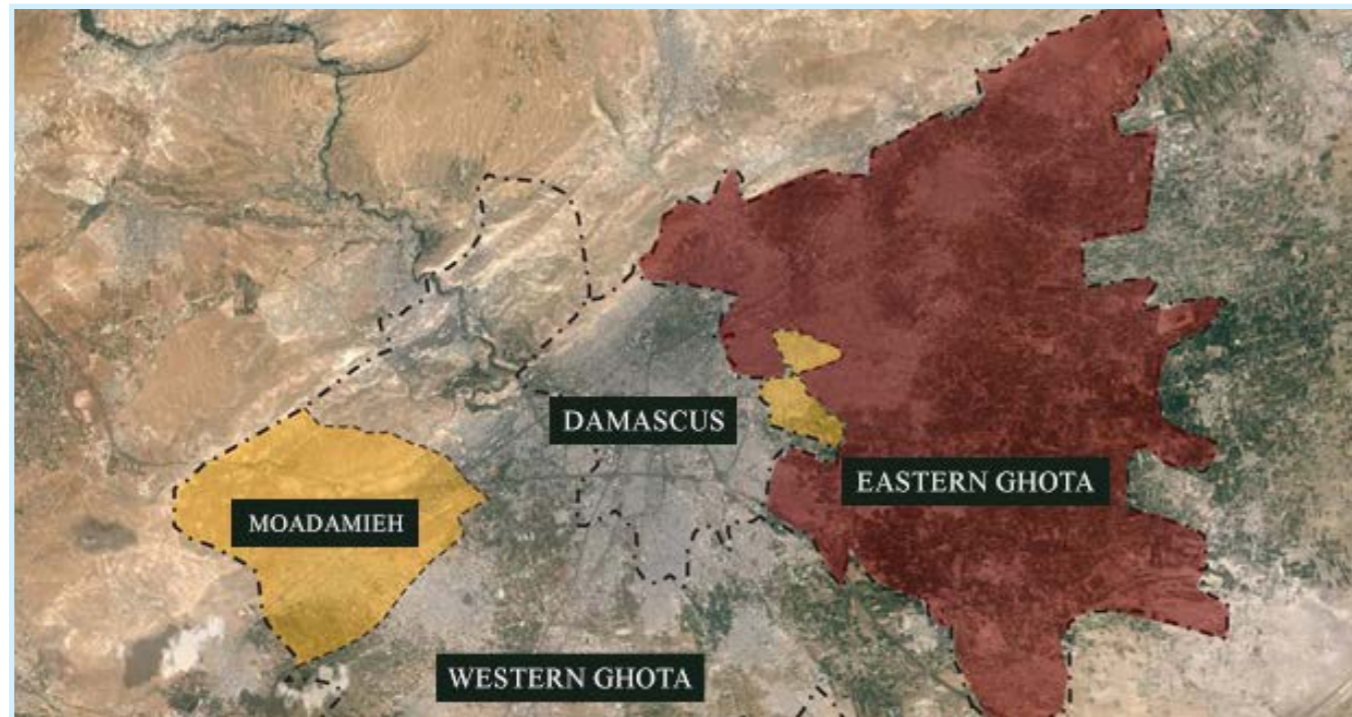
Syrian Economic Forum is Non-Governmental Organization (NGO), the views and data in this study do not necessarily reflect the views of employees in Forum or any of the members of its Board of Directors. For an electronic copy of the study, please download it from the site of the Syrian Economic Forum on the Internet [www.syrianeef.org](http://www.syrianeef.org)

To obtain a printed copy of the study please contact us by e-mail at the following address: [info@syrianeef.org](mailto:info@syrianeef.org)

# Introduction

The Eastern Ghouta of Damascus is considered one of the economically important areas of Syria, as it is an economic tributary in several fields like industry, professions, service, and agricultural and food. Like most of the Syrian regions, Eastern Ghouta participated in the revolutionary movement in Syria and paid the price for that in the most tragic ways. The worst among which was the siege imposed three years ago, which gradually turned into a comprehensive and complete siege on all goods and services and on the movement of individuals. This blockade reflected negatively on the economic situation of Ghouta. The most important manifestation of the siege was the collapse of food security, scarcity of food commodities and the great increase in their prices. This situation necessitated residents to activate the most important productive sector that is the agricultural sector and its related industries, in order to provide basic food needs, create jobs, and achieve an acceptable financial income.

The current liberated surface area of Ghouta is about 185 km<sup>2</sup>, 110 km<sup>2</sup> among which are agricultural lands, divided into small spaces dispersed on a large number of property owners. The most important crops in the area are vegetables, fruit trees and pastoral crops, but with the siege and the urgent needs, the priority became for growing grains (such as wheat, barley and corn) and various vegetables.



# Research importance

This research was conducted to address the suffering of the people in Eastern Ghouta from siege and hunger. Eastern Ghouta is known for the fertility of its soil and the abundance of agricultural production, which makes it capable of achieving self-sufficiency. Through this research, we address the problems facing this sector and the costs of some crops and the way to grow them. Information and figures represented in this research can be used as a database through which agricultural projects can be implemented to save the current situation in Eastern Ghouta.

## The Research

**Agricultural seasons in Ghouta can be divided into two main seasons:**

► **Winter season:**

the most important crops are wheat, barley and legumes like beans, peas and chickpeas in addition to some winter vegetables cauliflower and cabbage.

► **Summer season:**

the most important crops are summer vegetables (tomatoes, zucchini, cucumber, eggplant) and some grains such as corn and beans, as well as harvesting fruit trees.

**The importance of agriculture in Eastern Ghouta is explained in the following points:**

1. Achieve some kind of food self-sufficiency and compensate as much as possible for the food disorders affecting residents as a result of the siege over the past years.
2. Create jobs opportunities and stimulate economy, as the agricultural sector is currently the main productive sector in Eastern Ghouta.
3. Provide good financial income that helps in the development process and could be re-invested in other fields related to agriculture in order to stimulate other sectors like food industry.

Agriculture sector in East Ghouta suffers from a number of risks, the most important among which are the security threats such as the systematic bombing that burns crops, the occupation of lands and stealing crops by Bashar al-Assad's forces, in addition to the high costs of the process of growing crops from fuel to fertilizers and water.

## Wheat

Wheat is the number one strategic material in Syria, as it is the basic raw material for the production of bread, pasta, bulgur and animal feed. Wheat crop is one of the winter crops that are grown between the months of November and December, and it is harvested at the end of May with the possibility of cultivation during the month of February.

The cost of wheat cultivation varies in Eastern Ghouta depending on several factors, most notably is the severity of the siege, fuel availability and nature of the land (desert, wooded) and the source of irrigation (rivers, wells) as rivers do not cover the full Ghouta area leaving farmers in need for wells for irrigation. For the cultivation of wheat crop the following steps and costs are required:

One acre of land needs about 25 kg of seeds at a price of 3\$ per kilo taking into consideration that prices vary based on changes in the dollar exchange rate. Then comes the tilling stage which costs about 33\$ per one acre. Due to the lack of fertilizers needed to fertilization, the land is irrigated with sewage water, which provides somewhat acceptable fertilization to the ground, thus, the land should be sprayed with pesticides at an approximate cost of 9\$ per one acre. Later one comes the most difficult and costly stage that is the irrigation stage. Irrigation within Eastern Ghouta is divided into two types depending on the location of agricultural land; some of which depend on rivers for irrigation with an average cost of 17\$ per one acre, while other are irrigated by water wells, which is considered to be more expensive because of its need for fuel, which is rarely available in Eastern Ghouta. The average cost of irrigation through water wells is around 400\$ per one acre, which is a very high figure and impossible to implement.

At the end of the season other costs are added, which include the harvesting and threshing with an average cost of 80\$ per one acre.

After consulting a sample of farmers and engineers in the Eastern Ghouta, we can conclude that the average production of one acre of land of wheat is about 300 kg with an average cultivation cost of in lands that are irrigated by rivers is around 214\$ per one acre.

This means that the cost of 1 kg is about 0.71\$ which is a very high figure when compared to other regions outside Eastern Ghouta that have an average cost of about 0.22\$ per 1 kg. While the cost of 1 kg of wheat in the lands that are irrigated by water wells, is approximately 1.99\$.

As a result, the cost of wheat is very expensive and costly, but this does not substitutes for its strategic importance, noting that the global price of wheat on average is approximately 0.33\$ per 1 kg.



## Tomatoes

Tomato is one of the very important and basic materials in the food composition as it is relied on in several food industries and in local use. Tomatoes are cultivated in temporary plant nurseries, between the months of February and March.

Then, they are transferred and grown in permanent land as ready seedlings after the month of April and they need a month and a half to two months to start producing. For the cultivation of tomato crop in Eastern Ghouta, the following steps and costs are required:

For the cultivation of tomato we need to secure seedlings by manual transplanting, or by buying seedlings from specialized nurseries (considered the best way).

One acre needs 1000 seedlings at a cost of 55.5\$. The land is prepared by tilling on several stages with an average cost of 33.3\$ per one acre. Then, the land is sprayed with different pesticides at an average cost of approximately 29.6\$ per acre. The growing of tomatoes needs agricultural and service care on daily basis, and therefore workers costs are added such as services, harvesting, packing and transport with an average cost of about 83.3\$ per one acre. Next stage is the irrigation stage as tomatoes and most summer vegetables are irrigated through water wells and groundwater extracted by pumps run by fuel because of the absence of the possibility of irrigating by rivers. The cost of irrigation is approximately 611\$ per one acre, and this figure is very high because of the use of diesel fuel to run the pumps, which is rare because of the suffocating siege.

The production of tomato in Eastern Ghouta in one whole season is estimated of about 2000 kg due to the lack of fertilizers and the weak effectiveness of some pesticides as the normal rate of production is between 2000 kg to 3500 kg and may reach 5000 kg. Thus, the cost of growing 1 kg of tomatoes is 0.41\$, which is somewhat a good figure when compared to the cost of 1 kg of tomatoes outside East Ghouta, which amounts to an average of 0.45\$ in the city of Damascus.



## Zucchini

Zucchini is grown in the Eastern Ghouta in a summer planting period from the end of March until late April. Zucchini is characterized by high productivity during a relatively short production cycle which is very convenient for the living conditions in Eastern Ghouta as the longer production cycle means an increased exposure to surrounding risks. For the cultivation of zucchini crop, the following steps and costs are required:

One acre needs 1000 good sterile seeds at an average cost of 59.25\$. Then, the land is prepared and tilled at a cost of 33.3\$ per one acre. Like other crops, zucchini growing needs the spray of a variety of



pesticides at an intermediate cost of 22.2\$ per one acre, in addition to workers costs such as services, harvesting, packing and transport with an average cost of about 98.14\$ per one acre. At the end comes the irrigation stage, which is done through pumps that are run by fuel and this justifies its high cost with an average cost of approximately 407\$ per one acre.

The production of zucchini in Eastern Ghouta is estimated of about 4000 kg due to the lack of fertilizers, and the weak effectiveness of some pesticides and agricultural improvers as the normal rate of production reaches 7000 kg. Thus, the cost of growing 1 kg of zucchini is 0.155\$, which is an excellent figure when compared to the cost of 1 kg of zucchini outside East Ghouta, which amounts to an average of 0.35\$ in the city of Damascus.

## Cucumber

Cucumber is grown in the Eastern Ghouta in a summer planting period from mid April until the beginning of May. Harvesting begins after two months of cultivation and continues for two months with a rate of once every 2-3 days. Cucumber is also one of important food materials and is characterized by its fast production and harvesting. For the cultivation of cucumber crop, the following steps and costs are required:

Cucumber is planted as seeds in the permanent land, thus, good quality seeds should be provided. One acre needs 1000 seeds at a cost of 66.6\$. Then, the land is prepared and tilled at an average cost of 33.3\$ per one acre. The land is then sprayed with a variety of pesticides as needed with an average cost of 22.2\$ per one acre, in addition to workers costs such as services, harvesting, packing and transport with an average cost of about 90.75\$ per one acre. At the end comes the irrigation stage, which is done through wells run by pumps that need diesel fuel and this justifies its high cost because of the scarcity and high cost of diesel with an average cost of approximately 490\$ per one acre. The production of cucumber in Eastern Ghouta is estimated of about 1500 kg due to the lack of fertilizers, and the weak effectiveness of some pesticides and agricultural improvers as the normal rate of production is between 1500 kg to 3500 kg.



Thus, the cost of growing 1 kg of cucumber is 0.47\$, which is somewhat a good figure when compared to the cost of 1 kg of cucumber in the city of Damascus, which amounts to 0.55\$ per 1 kg.



## Recommendations:

Eastern Ghouta suffers a suffocating siege by the Syrian regime forces, especially in the food sector, where the situation there threatens of diseases and epidemics related to food shortages and malnutrition, thus, the Syrian Economic Forum recommends the following points:

1. Direct local and international civil society organizations to finance agricultural projects due to their maximum importance in achieving self-sufficiency and warding off the threat of famine, diseases and epidemics.
2. All official institutions of the Syrian opposition like the National Coalition and the Syrian Interim Government must put pressure on the World Food Program (WFP) and all international official entities to impose agreements on the Syrian regime with the aim of introducing the necessary materials needed for agriculture inside the besieged Eastern Ghouta.
3. All local councils in Eastern Ghouta and the project management division in the Syrian Interim Government should prepare technical studies and feasibility studies on agriculture in East Ghouta and formulate in a ready-for-implementation projects, in order to submit them to all organizations or individuals interested in funding these projects.
4. All local councils and landlords in Eastern Ghouta should offer these lands for those wishing to invest either a financial fee or in exchange for a share of the production with the aim of promoting agriculture and self-sufficiency.

[www.syrianef.org](http://www.syrianef.org)

Gaziantep, TURKEY

Tel: +90 342 323 61 69

E-mail: [info@syrianef.org](mailto:info@syrianef.org)



Your opinion is important for us:  
Hope you evaluate this report by scanning QR Code or visit the link below  
[www.syrianef.org/ghota.html](http://www.syrianef.org/ghota.html)