

The Importance of Saffron Plant in Afghanistan's Agriculture

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ABSTRACT

In Afghanistan, about 80% of the country's population is engaged in agriculture. Therefore, agriculture has a very important place in the country's economy. As in other agricultural crops and products in recent years, the production of saffron plants is closely affecting the economy of the country. Saffron plant is also called the red gold in the country, because it is economically very important and expensive plant. Production and trade of saffron plant is taking place in different parts of the world, especially in countries like Greece, Turkey, Spain, Iran, India, Afghanistan, Morocco. More than 90% of production takes place in Iran. This important plant has been known in Afghanistan since ancient times, and production is done even if it is in a small amount. In 2002, saffron production became more important again and production started. Production is rapidly increasing as a result of the support provided by various national as well as international institutions and organizations in Afghanistan. Now saffron plant is recognized as an alternative to poppy. Nowadays saffron production takes place in almost everywhere in the country. About 5-6 tons of saffron is being produced annually in the Herat region of Afghanistan.

Keywords: Saffron, Poppy, Afghanistan, Economy, Trade, Development

INTRODUCTION

The common name "Saffron" and the scientific name "*Crocus sativas* L." is also known as Red Gold, defined as agricultural, endemic and medical plant (Allahvediev *et al.* 1997). Saffron; It is a perennial plant with 15-30 cm length and is of bulbous plants. Its purple flowers opening in the autumn season. Leaves are long and dark green. Saffron is used after it is dried and powdered. The three-parted hills situated on the upper part, are reddish orange in color. The flowers are opening along with the sun rise. Soon after unfolding, is collected in the twilight. Its composition contains sugar, organic acid, essential oil and red cyanine (İnalçık *et al.* 2005). Based on studies It spreads in tropical and subtropical climate regions in the northern hemisphere (Ünalı, 2007, Ünal and Çavuşoğlu, 2005, Molina *et al.* 2003, Foshtomi *et al.* 2011).

Saffron planting and production is carried out in almost every region of Afghanistan. However, production in the province of Herat in the western region of Afghanistan is approximately 90%. In Afghanistan, approximately 5-6 tonnes of saffron production occurs in about 2500-3000 hectares of land. These figures are increasing every year. This study will focus mainly on the importance of saffron plant, its uses and production and exports in Afghanistan. In addition, the effect of saffron on the development of the country will be evaluated.

Saffron Production in Afghanistan

Afghanistan is an arid region on the other side the saffron plant does not need a lot of watering has made the saffron profitable in Afghanistan. Saffron production is carried out in many regions of the country; however, a large part of the production takes place in Herat. Saffron production in Afghanistan is given in Chart 1.

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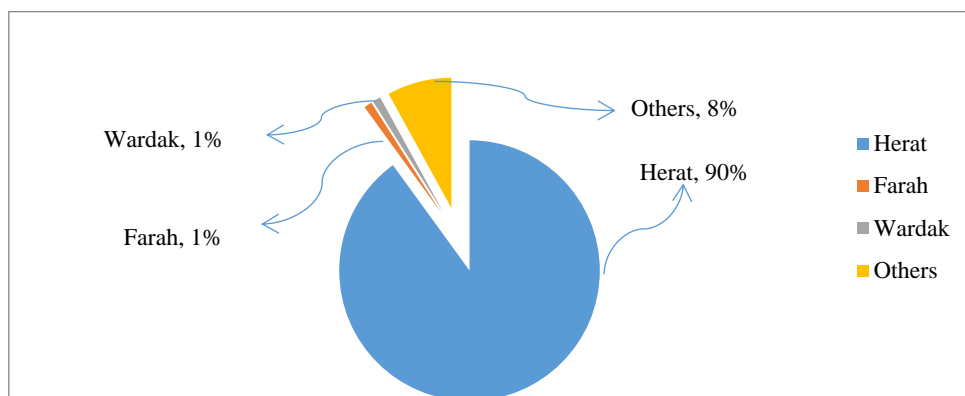


Figure 1. Production of Saffron by Provinces in Afghanistan (Planting area (ha %)2015). Source: General Statistics institution, Afghanistan State.

Herat is one of the oldest cities in the world. Herat, located to the north west of Afghanistan, is the second largest city in Afghanistan (Kalkan, 2015). It has become a remarkable center with its economic potential as well as its geographical importance. The main source of livelihood for the city's people is; agriculture, animal husbandry and trade (Haack *et al.* 2008). One of the most important products in the city is saffron, which contributes to the city's livelihood. Saffron production also contributes to the country's economy by lowering the unemployment rate in the region.

Herat province accounts for approximately 95% of the country's saffron production. There are a total of 15 districts in Herat province Saffron production is carried out in all of these districts. Ghuryan, Pashton Zarghon, Zandajan, Kuhsan and Enjil are the leading districts in saffron production (Graph 2).

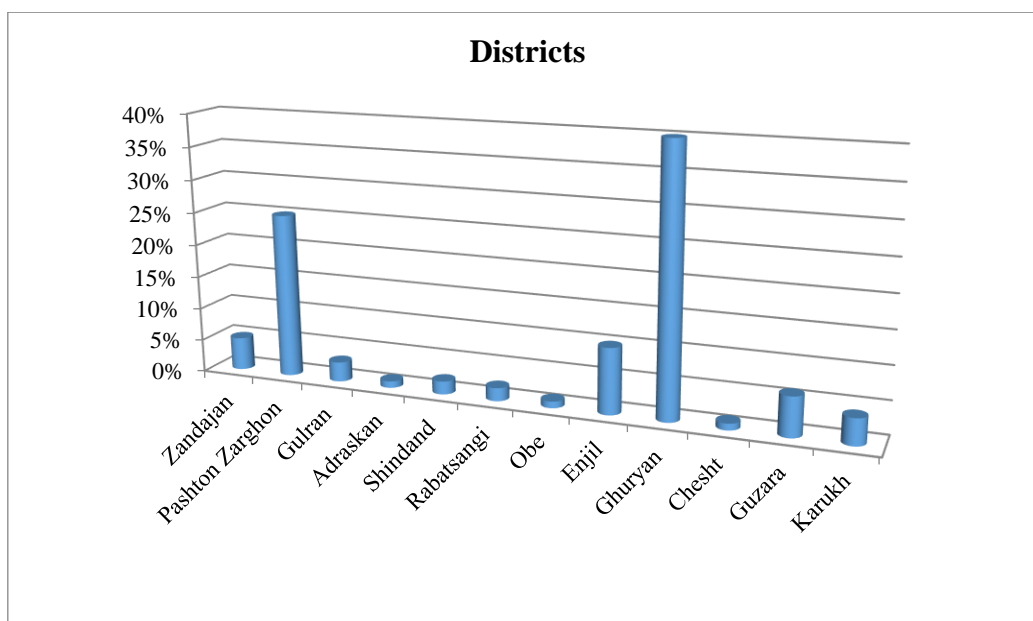


Figure 2. Production of saffron by districts in Herat province (%) (2015). Source: General Statistics Institution, Afghanistan State.

While producing saffron, yield can be obtained up to 5-6 years after seed sowing. Saffron production can easily take place in areas where there is less water (Graph 3).

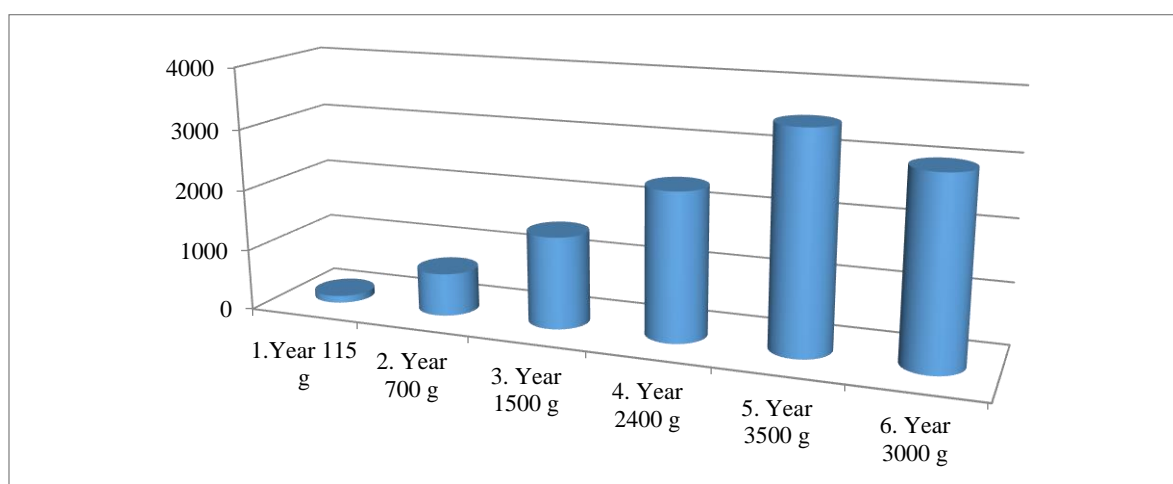


Figure 3. Saffron Efficiency (g/ha).

The amount of saffron production in Afghanistan and especially in the western part of it, the Herat region over the years is given in Table 1.

Table 1. Saffron production and planting area in Afghanistan and Herat province.

Years	Production in Afghanistan (Kg)	Production in (Kg)	Planting Area (Hec)
1991-2004	60	-	16
2005	150	-	40
2006	240	-	83
2007	400		161
2008	900	855	260
2009	1500	1425	306
2010	1700	1615	400
2011	1800	1710	560
2012	2700	2565	650
2013	2700	2565	730
2014	3390	3200	850
2015	4718.3	4500	1020
2016	6081.2	5970.2	2811

Source: <http://www.bbc.com/persian> , <http://cso.gov.af>

Economic Importance of Saffron Production

The economic importance of Saffron comes from the fact that is used very widely in various industries in the world. In particular, the promise of treatment for some types of cancer makes saffron even more important. These points show that how high is the economic preeminence of saffron today and even in the future. Hereby, taking into account the sustainable agriculture approach, ecological, economical and aesthetic evaluation of saffron, both for the country's economy and for rural development, is extremely important (Ünalı, 2007).

There is a big need for workers in the production process of saffron, so many people are able to work in the production process. In the production process of saffron, it is possible to provide about job for 270 persons per hectare area within a year. Thus, saffron production plays an important role in decreasing the unemployment rate by providing hundreds of thousands of people with work force every year. In Afghanistan, about 5-6 tons of saffron production occurs annually. The amount of production is increasing every year, and this increase provides a decrease in the unemployment rate in Afghanistan. The increase in the production also ensures that the immigration rates in the country decrease. According to unofficial reports in 2015-2016, approximately 300,000 people from Afghanistan have migrated to many different countries, mainly Europe, and one of the most important reasons for migration is unemployment. The saffron plant is a very expensive plant as mentioned above, so planting and

production contributes to producers and farmers' economies, and on the other hand it contributes to the general economy of the country. The yield and prices of saffron plants are given in Table 2. The higher the kilogram price of saffron, is the higher the income achieved. For this reason, the country has an important place in the economy. Therefore, has an important place in the country's economy.

Table 2. Efficiency obtained from one hectare land (Saffron, Wheat and Rice).

Plant	Yield kg/Hec	Price kg (\$)	Total Income
Saffron	4.5	2000	9000\$
Wheat	6000	0.25	1500\$
Rice	4400	1	4400\$

Source: Jamshidi M. (2014).

Saffron's Foreign Trade in Afghanistan

Due to the high price, countries that produce saffron and export their products have significant foreign currency inflows. In terms of usage, the demand for saffron in the world is very high. Besides the surplus demand in the World, its economic value is also very high, bringing saffron farming to an important position. When we examine the export of saffron in Afghanistan, we can say that India comes first, followed by China and Spain. Indeed saffron, saffron is being offered to world markets by Spain and India today.

Table 3. Saffron exports in Afghanistan (2015).

Countries	Amount (Kg)	Total Value (\$)
India	1197	1,900,246
China	280	335,791
Spain	220	310,800
United Arab Emirates	186	305,028
Saudi Arabia	104	177,675
U.S.A	68	85,938
France	40	66,680
Swiss	53	63,947
Germany	15	26,190
Italy	20	24,153
Netherlands	4	7,560

Source: <http://www.Comtrade.un.org> (2015).

Exports of the produced saffron in Afghanistan can be increased by several methods presented below.

a. Marketing

On a saffron plant, marketing is one of the most important problems. The transport phase is very important in order not to disturb the taste, aroma and color. The saffron plant can lose its properties quickly because it is a very easy and fast drying plant, so the marketing process must be done very carefully. Saffron is produced once a year, but the demand continues intensely for the whole year. Therefore, production should be carried out taking into account market needs and desires.

b. Regular Introduction Ads

One of the main elements of effective marketing is effective promotion. Consumers cannot be expected to get a product or service without knowing what it does, how it is used, and where to get it. Advertising at this point is of great importance. The large masses of people can decide using of the product, through advertising, that what products or services are produced in their countries, what features they have, how they can afford, where they can buy it, how they can use it, and compare them with their own needs. Advertising, which also influences people's decisions, has always been successful by providing them with healthier, better quality, useful product features, training them and changing their perspective.

Therefore, it is necessary to advertise the saffron product on regular basis, because good publicity leads to increased production and there is also an increase in exports.

c. Quality Control Adhere to Standards

Complying with world standards during production will lead to a better understanding of the product from one side and increase in exports from the other side. Afghanistan's saffron has passed the ISO audits and won the world's best quality saffron and presented to world markets.

CONCLUSIONS

Saffron is the most expensive agricultural plant in the world, so if is attention paid to quality production, by reducing the unemployment rates in the country, by directly affecting the socio-economic situation of farmers and workers. it will contribute to the economy of the country. And also contributes to the removal of many other migrations and other social problems. There has been a struggle against the production of narcotics for years from another side, but the desired results have not been achieved. As much support is given to saffron production, as many farmers are distanced from the production of narcotics.

RECOMMENDATIONS

- It is proposed that widening of national and international supports and grants should be made in the production of saffron, which in many cases motivates the farmers to produce saffron.
- The state and related ministry should take important measures to make the safran produced in Afghanistan widely marketable and present it to the world.
- The government and the relevant ministry should take serious measures to distribute the seeds (onions) to the farmers and provide contribution to the farmers.
- The Ministry of Agriculture should provide systematic and regular informing offices and personnel in different regions of the provinces and districts of the country.
- Agricultural consulting companies, especially companies offering consulting services related to saffron, should be encouraged.
- Work on domestic consumption and use of this vital and important plant should also be done.
- Because saffron is a medicinal plant, it should be recommended for use by specialists for various diseases.

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