Evaluating Organic Cotton Production in Türkiye

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Key words: Cotton, organic, SWOT analysis, Türkiye

Abstract

Cotton is crucial for Türkive in terms of its extensive production and added value and employment opportunities. Especially, it is the leading country in the world with regards to yield and fibre quality. Rising awareness about environment conservation as well as health hazards caused by agrochemicals has brought a great alteration in consumer preference towards organic production particularly in developed countries. Textile products made of organic cotton which have contributed to the environment, economy and social development in particular, are started to be preferred. In this study, Türkiye's organic cotton production and its processes were evaluated by SWOT analysis method and solution proposals were presented within the scope of the achieved results. The strength as a result of the SWOT analysis is to have the appropriate geography and climate characteristics both in terms of production and market access. Subsidies and support policies for organic cotton production remained small scaled when the costs are compared to conventional production The most important opportunities are as follows; firstly, cultivation of GMO seeds is banned in the country and secondly, organic cotton regarding guality and fibre length has high demand in market. Higher prices of competing products (such as corn) are defined as the important threats. Türkiye has a good knowledge on organic farming, may enhance its potential of utilization in organic seed-cotton production. It is necessary to support organic cotton production that contribute to environment, economy and development, its cost should be reduced, along with carrying out long term researches to disseminate to farmers.

Introduction

Due to the Covid-19 outbreak in the 2019/2020 production year, organic cotton production decreased, as in many other products. Both the interruption in the production of cotton and cotton products and the uncertainties in the supply chain resulted in decrease in production. On the other hand, increasing input and energy costs have adversely affected the cotton cultivation. As can be seen Figure 1., the amount of organic seed-cotton production in 2020 decreased by 66.33% compared to 2010.





Source: TOB, Organic Agriculture Statistics (only TR standarts)

The total amount of organic production between 2010-2020 in Turkey is similar to the amount of organic cotton production. To evaluate organic cotton production amount for the last decade that organic cotton production took the least share was production season of 2019/2020 with (0.37%) (Figure 2).

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Figure 2. Turkey organic seed-cotton production amount (tons) and the share of organic cotton in total organic production amount (%). Source: TOB, Organic Agriculture Statistics

The SWOT analysis acquired from research data and reports on organic cotton production and production enterprises in Türkiye.

Strength	Weakness
 The climate and soil are suitable for organic cotton cultivation. Farmers have know-how on organic cotton cultivation Organic cotton has premium and a higher price than conventional cotton Since the use of biotechnological (GMO) seeds is banned by official regulations, there is no risk of (GMO) contamination in organic cotton. Better quality of organic cotton than conventional cotton thanks to handpicking Possibility to utilize the seed, oil and hull of cotton, Cooperation between public, private sector and NGOs to meet the increasing demand for organic cotton Experienced Enterprises with suitable infrastructure for the production of organic cotton. Studies are carried out on Cotton Varieties for adaptability to extreme climate conditions (drought, water scarcity etc.) Türkiye has Cotton Gene Bank 	 In the beginning organic cotton yield is relatively lower than conventional cotton yield Inputs in organic cotton are relatively more expensive than conventional cotton High labor cost of organic cotton cultivation due to hand-picking Domestic market remains underdeveloped due to the high prices of organic cotton Farmers ended organic cotton cultivation during the periods of Payment support withdrawal. Lack of inter-agency cooperation and coordination in organic cotton practices and policies. Organic cotton producers don't have any organization Agriculture sales cooperative unions such as (Tariş, Çukobirlik, Antbirlik) having around 120,000 members don't have any role in purchasing organic cotton production

Organic Cotton SWOT Analysis

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Opportunity	Threats
 Prioritize production methods and products that do not harm nature and human health. It can be supportive for Paris Agreement requirements Market for organic cotton products has a promising future Currently, Infrastructure, investment, research and dissemination studies are carried out in order to use alternative inputs, practices and techniques. Cooperation, clustering activities, encouraging practices by government Raising awareness on social responsibility, ethical values, brand effectiveness Interest of market actors for ready-made clothing brands in Turkey is growing 	 Loss of fiber quality and yield, changing product patterns such as sunflower or corn due to climate change consequences as extreme weather conditions, drought and water scarcity Energy and input prices are increasing so cost of organic cotton production becomes higher. Interruption of product cultivation due to extraordinary conditions such as epidemics, pandemics causes fragility in the supply chain. The rural population moved away from countryside. Certain countries which cultivate organic cotton production so immensely that Türkiye faced the risk of losing its superiority in competitiveness

Results

The strength as a result of the SWOT analysis is to have the appropriate geography and climate characteristics both in terms of production and reaching the market. Subsidies and support policies for organic cotton production remained small scaled when the costs are compared to conventional production The most important opportunities are as follows; firstly, cultivation of GMO seeds is banned in the country and secondly, organic cotton regarding quality and fibre length has high demand in market. Higher prices of competing products (such as corn) are defined as the important threats. Türkiye has a good knowledge on organic farming, may enhance its potential of utilization in organic seed-cotton production. It is necessary to support organic cotton production that contribute to environment, economy and development, its cost should be reduced, along with carrying out long term researches to disseminate to farmers.

Discussion

Marketing strategies and support payments, grands may facilitate the transition to organic cotton production and make it attractive for farmers. Thus, assure sustainability of organic cotton production in order to maintain its competitive power like the other countries that enhanced their organic cotton production capacity. It is worth considering advantageous position of Türkiye in fiber quality and GMO-free cotton which is promising for a better future in organic cotton production.

References

Anonymous, (2010-2020). Tarımsal Desteklemelere İlişkin Karar, 2010-2020 yılları arası Bakanlar Kurulu Kararları, Resmi Gazete, https://www.resmigazete.gov.tr, (Date accessed: 8 Mart 2022).

- Anonymous, (2020). Pamuk Sektör Raporu 2020, Ulusal Pamuk Konseyi, http://www.upk.org.tr, (Date accessed 9 Mart 2022).
- Anonymous, (2019). 2018 Yılı Pamuk Raporu, T.C. Ticaret Bakanlığı Esnaf, Sanatkârlar ve Kooperatifçilik Genel Müdürlüğü, https://ticaret.gov.tr, (Date accessed: 9 Mart 2022).

Demiryürek, K. (2016). Örganik Tarım ve Ekonomisi, T.C. Kalkınma Bakanlığı Doğu Karadeniz Projesi Bölge Kalkınma İdaresi Başkanlığı, (Ed. Canan, S.), https://www.dokap.gov.tr, (Date accessed: 10 Mart 2022).

Erdal,U.,M. Bayraktar, A. Gürel . 2016. Importance of Organic Cotton for Turkey. World Cotton Research Conference-6., Goiás, Brazil. https://orgprints.org/id/eprint/30489/

Erdal,U; Sokmen, O; Uner, K.;Bilir, L.;Göçmez, S.;Okur,N.;Okur, B.;Anaç,D.; Ongun, A. R.;Ertem, A.and Çakmak, R. (2010) The effects of Organic and Conventional Farming Practices on Yield, Quality and Soil

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Properties in Cotton Growing. Organik Tarım Araştırma Sonuçları. T.C. Tarım ve Köyişleri Bakanlığı, Ankara, Turkey, pp. 325-332. https://orgprints.org/id/eprint/22126/

- Erdal, Ü. and Gürel, A. (2012) Status of Organic Cotton Production im Turkey. Inter-Regional Cooperative Research Network on Cotton for the Mediterranean and Middle East Regions, Antalya, Turkey, 5-7 November, https://orgprints.org/id/eprint/22083/
- Keskin, U., Ören, N. M., (2008). Dünyada ve Türkiye'de Organik Pamuk Tarımı ve Ekonomisi, ÇÜ: Fen Bilimleri Enstitüsü Yıl:2008, Cilt:17-4, https://fbe.cu.edu.tr, (Date accessed: 10 Mart 2022).
- Nacak, İ.P., (2004).Türkiye'nin Pamuk Dış Ticaretinin Yapısı ve Bunu Etkileyen Faktörler Üzerine Bir Araştırma, İzmir Ticaret Borsası Yayınları, 475 s.
- Textile Exchange, (2020). Organic Cotton Market Report 2020 (OCMR), https://textileexchange.org, (Date accessed: 11 Mart 2022).
- Tokel, D. (2021). Dünya Pamuk Tarımı ve Ekonomiye Katkısı, MANAS Sosyal Araştırmalar Dergisi, 10(2), https://dergipark.org.tr, (Erişim tarihi: 11 Mart 2022).
- TOB, (2021). BÜĞEM Faaliyet Raporu, Bitkisel Üretim Verileri, Tarım ve Orman Bakanlığı, https://www.tarimorman.gov.tr, (Date accessed: 9 Mart 2022).

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