

SUNFLOWER MARKET ASSESSMENT IN THE REPUBLIC OF MOLDOVA

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Abstract. The Republic of Moldova is situated in the southeast of Europe. In the present time the major part of its GDP is represented by the agrarian sector. Agriculture and food production are dominant sectors in Moldovan national economy with the share of 33 % of GDP and 65 % of the export; because of lack of other natural resources and due to good climate conditions and fertile soils. The paper relates to the study of sunflower, which is one of the most important crops for Moldova, along with wheat, barley and corn, specifically in terms of cultivated areas. Taken separately, sunflower is grown almost on one fifth of the total arable land of Moldova, varying from 225,000 to 336,000 ha per year. In terms of exclusively technical crops, sunflower occupies around 60 – 65 % of the total agricultural land and offers guaranteed markets. The overall objective of the study is to conduct a market assessment of sunflower in the Republic of Moldova including a value chain analysis (VCA), which was elaborated by using the method of rapid evaluation of assimilating information and receiving a comprehensive vision on sunflower production in the Republic of Moldova in terms of produced quantities, sale channels and volumes, roles and influence of various subjects of the trade process, sunflower production peculiarities, as well as use, types of producers, sellers and other seasonal issues

Keywords: sunflower, value chain analysis, market assessment.

Introduction

Sunflower (*Helianthus annuus* L.) is one of the most important oil crops in the world production and the area under sunflower is in constant increase [1]. In the Republic of Moldova sunflower is one of the most important crops, along with wheat, barley and corn, specifically in terms of cultivated areas [2]. Lands under sunflower for oil processing are registered in all geographical zones of Moldova (the North, the Center, and the South) and include every administrative region. The largest areas under sunflower are cultivated in Cahul (12.4 thou ha), Căușeni (10.9 thou ha), Drochia (12.6 thou ha), Florești (10.7 thou ha), Rîșcani (10.7 thou ha), Găgăuzia (14.6 thou ha). Lands under sunflower with areas of 7 – 9 thou ha are cultivated in the regions of Cantemir, Cimișlia, Fălești, Hîncești, Orhei, Sîngerei, Soroca, Telenești, Ungheni. The smallest areas are placed in the regions of Anenii Noi, Basarabasca, Călărași, Dubăsari, Nisporeni, Strășeni. Sunflower productivity fluctuates over years depending on the climacteric conditions, mainly on the precipitation quantities and periods [3].

However, the best per hectare yields over years are registered in the regions of Dondușeni, Drochia, Edineț, Fălești, Glodeni, Soroca, Ungheni. The sunflower seeding material is produced within specialized licensed farms, placed mainly in the regions of Cahul, Cantemir, Hîncești, Rîșcani, Ștefan Vodă, Taraclia, Comrat, Ciadîr-Lunga, Vulcănești, Bălți, Rezina. In terms of exclusively technical crops, sunflower occupies around 60 – 65 % of the total agricultural land and offers guaranteed markets [4]. As a rule, sunflower is planted in the first half of April and the planting period lasts for 15 days. In a series of regions of the central and eastern zones (Cahul, Leova, Taraclia, Comrat, Ciadir-Lunga, Vilcanaesti, Cimislia, Cantemir, Anenii Noi), planting works are carried out 6-7 days earlier as in the northern part. In general, the majority of land areas under sunflower (80 %) are harvested over the last week of September – first week of October; however, depending on the geographical zone, harvesting could start at mid September and last until mid October.

Materials and methods

This case study was elaborated largely based on primary and secondary data using the method of rapid evaluation. The information from secondary sources, including laws, regulations, the Ministry of Agriculture and Food Industry (MAFI) statistics, the Customs Department, data from web pages of various field institutions, was used specifically to collect information on the harvest, areas, quantities of sunflower production, use of production inputs, quantities and markets, import/export statistics and trends, domestic consumption, sunflower use within farms, trade prices in different markets and different points of the value chain. Informal interviews were also held with the main actors in the field

of sunflower production and trade, including the MAFI representatives, sunflower producers, intermediaries, transporters, commodity exchange, etc. This rapid evaluation was aimed at assimilating information and receiving a comprehensive vision on sunflower production in the Republic of Moldova in terms of produced quantities, sale channels and volumes, role and influence of various actors of the trade process, sunflower production peculiarities, as well as use, types of producers and sellers, transactions and other seasonal issues, etc.

Another issue of specific importance considered under this study scope relates to policies applied within the field of sunflower production and trade, technical and operational issues of sunflower import/export. The process of data collection included the analysis of the trade policies, phytosanitary requirements and quality standards.

Results and discussion

The majority of seeds previously used in the Republic of Moldova for purposes of sunflower production were obtained at the Institute for Field Cultures Research “Selectia” that used to put at producers’ disposal homologated hybrids of sunflower, which were well received by the local producers. Currently, there are more private companies operating in the field of production of various varieties and hybrids of seeds obtained and held by foreign companies or institutions. The basic clients of these companies are large producers, which have better access to financing sources, specifically through pre-financing arrangements by local and international trade companies.

This situation leads to the increase, over the last five years, of the number of producers of seeds for trading. However, from year to year the domestic producers request hybrids of higher and constant productivity under any climacteric conditions.

The most requested hybrids in Moldova in decreasing order are as follows: Drofa, Performer, Vitalia, Xenia, Luceafărul, LG, Marița, Manad, Alcazar, SNH-215, Vidoc, Donscoi Krupnoplodnii and Donscoi – 60 species. Despite certain progress attested in seed market expansion, over the last five years local producers of sunflower are in permanent search of new hybrids of seeds. This situation is similar to the one in the EU, where even the most appreciated types or hybrids of sunflower stay in the market not longer than five years before being taken out of circulation because of entrance of new and better species and hybrids.

In Moldova, the time-period between the seed registration, testing and final homologation by the National Council for Plant Species may last up to four years, even for the species and hybrids already homologated in the CIS and EU markets. Because of that, local farmers are much restricted in exploiting newer and long-term hybrids and species and have reduced abilities in competing in international markets.

Production and consumption

Over the last years, Moldova registered a reduced productivity of technical crops, including of sunflower. On an average, in 2001 – 2008, the per hectare yield of sunflower constituted 1.3 – 1.9 tons, which affected, as well, the profitability of relevant crop production. The main reason we can find in insufficient fertilizing of soil and lack of efficient measures to fight weeds; non-observance of agro-technical requirements towards soil basic tilling; aggravation of the phytosanitary condition because of non-observance of crops rotation, inclusive of increase of areas under technical crops; use of seeds of low biological quality; application of simplified cultivation technologies, which excluded application of chemicals, protection from diseases and pests and etc. Within the structure of crops planting, sunflower accounts for around 14 – 18 %, and in the structure of technical crops – for 60 – 65 %.

The global volume of sunflower production fluctuated over 2002 to 2008 from 317 thousand tons to 443 thousand tons. In 2003, a year with favorable conditions for sunflower cultivation, additional precipitations in July – August contributed to a global yield of around 443 thousand tons. The lowest volume (172 thousand tons) was harvested in 2007, because of the severe drought in April – August. The productivity in 2007 accounted for only 0.74 t·ha⁻¹, or 50 % of the multiannual average.

Taking into consideration the export value, the total quantity available for domestic consumption in the Republic of Moldova varied from 130 thou t.m. to 288 thou t.m. of sunflower. Real

consumption accounted, on an average, for 61 % of the total available quantity. Thus, the per capita consumption does not reveal any trend. The relevant indicator oscillated over the last 4 years between 27 and 59 kg·year⁻¹ per capita. At the same time, the domestic market of Moldova consumes 14 – 22 thousand tons of sunflower oil.

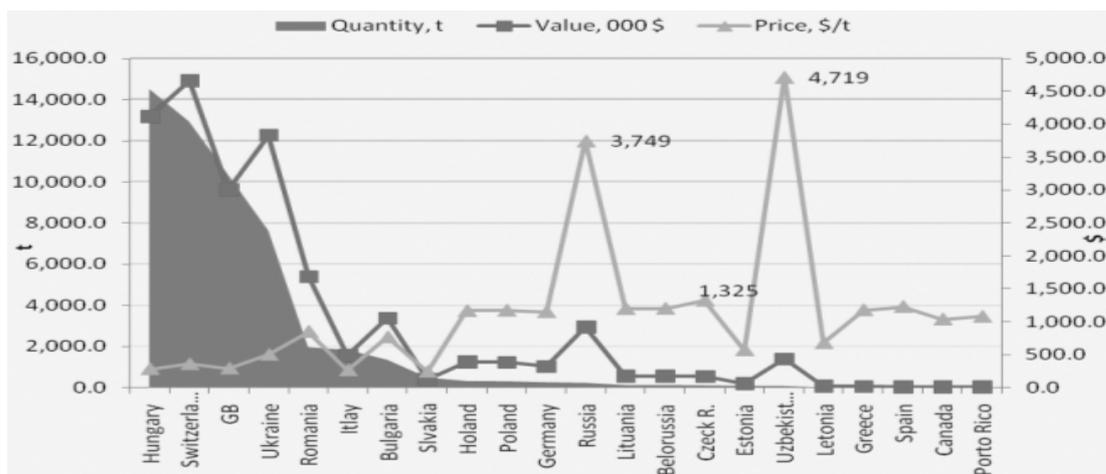
Import and Export

Traditionally the Republic of Moldova exported stable quantities of sunflower; yet, over the last 4 years Moldova exports mainly finite products – sunflower oil. The export volumes registered in 2002 – 2008 denote different weights in annual production values. Exports of essential quantities of sunflower products are registered in November – December of the harvest year, as well as in February – April of the following year.

The exported volume does not exceed, on an average, the fifth part of the produced volume. A significant share of exports (85 %) is initially directed towards the maritime ports of the Black Sea in Ukraine; afterwards, following the formation of large lots of 5 – 10 thousand tons, the shipments are transported by sea towards international traders from various countries. In the zone of the Black Sea basin the prices for sunflower fluctuate from year to year because of the applied practice of administratively restricting exports of sunflower from Moldova and Ukraine. In Romania and Russian Federation the export potential was restricted by tougher requirements of the domestic oleaginous raw material processing industry. The import and export of sunflower seeds is governed by the Regulation on Import and Export of Seeds and Planting Material, approved following the Government Decision no. 360 of 27.03.2002. The seeds designated for import or export are subject to mandatory control and certification by the General Inspectorate of Phytosanitary Supervision and Seeds Control, as in accordance with the technical instructions and norms in effect.

Import or export of seeds of other biological categories or of seeds not complying with relevant quality indicators is allowed exclusively if permitted by relevant field authorities of the importing country. Imports and exports of seeds of fine quality and hybrids protected through brevets or certificates for plant species are allowed only if permitted by the owner of thereof. Only seeds of fine quality and homologated hybrids registered in the Register of plant species and hybrids are allowed to be imported into the territory of the Republic of Moldova.

Export and re-export of sunflower seeds is allowed exclusively after due control of relevant seed lots in terms of quality indicators as in accordance with the set effective norms. Also import and export of seeds is carried out in packed lots, marked and sealed as in accordance with the normative acts in effect.



Source: National Agency for Rural Development ACSA, 2009

Fig. 1. Export of sunflower by destination, 2008

Fig. 1. shows the destinations, quantities and prices of sunflower exports. In value terms, exports in 2008 were directed mainly to Hungary, Switzerland, UK, Ukraine, and Romania; however, the price of 1 exported ton in US\$ equivalent within this group of countries was lower than 700 per unit. At the

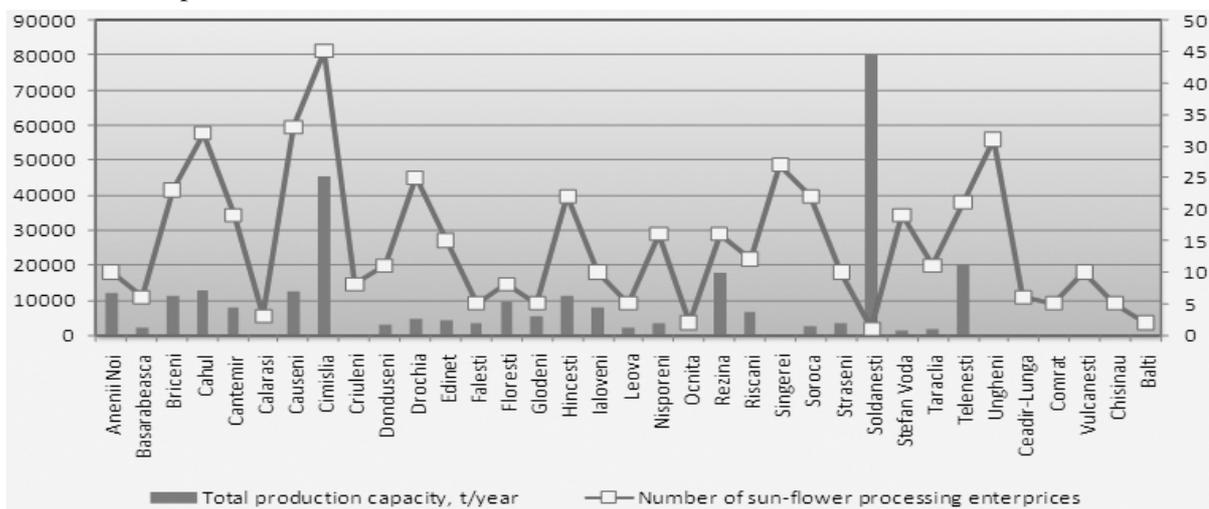
same time, there are two destinations that stand out within the export structure – Russia and Uzbekistan: the average export price towards these countries amounted to around 4000 US\$/t. This price was largely determined by the fact that a significant share of sunflower export to these two countries includes, along with seeds for trade, sunflower seeding material, which is much more expensive. It is important to mention, the Republic of Moldova does not import sunflower for processing. Yet, Moldova imports sunflower seeds to cover the needs of land beneficiaries for qualified seeds.

Value chain analysis

In the Republic of Moldova there are 76 sunflower producers and the country does not have a state or private structure capable of integrally solving the issue of acquisition of sunflower for processing. However, there are some fragmentary elements of the acquisition system. Acquisition of sunflower is made by S.A. Floarea Soarelui – the largest sunflower processor [5] – in an average annual value of around 160 – 190 thousand tons and 4 – 5 enterprises of cereal collection (out of total 30 enterprises), which annually buy sunflower from agricultural producers in volumes of around 10 – 15 thousand tons. The sunflower seeds bought by these enterprises are further directed towards export.

The other 25 enterprises of cereal collection provide annually only services of cereal storage, conditioning and maintenance. The category of sunflower wholesalers dealing with sunflower processing for export purposes include the economic agents operating within consolidated agricultural farms with land areas over 50 ha. Single sales by various agricultural farms to only SA Floarea Soarelui varied, over years, from 100 tons to 350 tons.

The category of retailers mainly includes peasant farmers that sell their sunflower in the communes, as well as at agricultural markets. In conditions when the former state centralized system in the field of production trade was not functioning any more and the new system has not been implemented yet, the producers in the Republic of Moldova had to face a series of problems such as lack of market transparency, lack of an effective system to conform the product quality to the market demands, the lack of a well-defined chain of distinct relationship in the field of production trade. Agricultural producers used to sell only 25 – 40 % of produced goods; the main purchasers were the processing enterprises from neighboring localities, and the proposed acquisition prices were often lower than the production costs.



Source: National Agency for Rural Development ACSA, 2009

Fig. 2. Number of enterprises of sunflower processing

In the Republic of Moldova there are 19 exporters of sunflower [5]. The export of sunflower is made preponderantly by railway (95 %), which provides specialized container wagons for transportation of cereals and oleaginous products, with monthly transportation capacities of over 70 thou tons, including 20-22 thousand tons of sunflower. The destination of railway deliveries includes maritime ports of Ukraine in the Black Sea basin (Odessa, Ilichovsk, Reni). Export by motor transportation is directed towards the regions neighboring Ukraine and Romania. “Davskoi

Crupnoplodnii” sunflower for food in annual quantities of 2.0 – 2.8 thousand tons is exported totally to the EU (Romania, Poland, Hungary) by motor transportation. The same means of transport are used to export/import sunflower seeds (2.2 thousand tons).

The category of sunflower processors includes SA Floarea Saarelui from Bălți (the processing capacity accounts for 160 – 190 thousand tons of sunflower) and 591 smaller processors placed in communes, regional centers and the cities of Chișinău and Bălți.

Added Value Analysis

A general added value analysis shows the difference between the product selling price and production cost in the Republic of Moldova. Sunflower is a product that reaches various final consumers in various forms. So, sunflower might be designated for export, rural mills, bakeries, internal consumption of rural households, etc. Thus, on the one hand, an added value analysis at various transactions moments could embed various forms as there is an extended range of possible scenarios, but, on the other hand, would make the comparison with the added value obtained by a farmer impossible.

So, under the scope of this analysis report, the analysis target is focused on the farmer – the producer of sunflower. In other words, this analysis is aimed at determining the producer’s share in the value of the final product acquired by the purchaser. Within this context, as classical example would be the computation based on average prices of 2008 and the comparison with the mostly spread final product – sunflower seed oil. The part of sunflower seeds cost in the selling price of 1 liter of sunflower oil was 42 % in 2008.

The quality standards for sunflower oil are set based on GOST 22391-89 (oil designated for commercialization in the domestic market) and CODEX-STAN 210 (oil designated for export). Thus, in terms of sunflower oil designated for commercialization in the domestic market, the quality requirements were provided under GOST 22391-89, which implicitly refer to organoleptic and physico-chemical indicators. As in accordance with the Law No. 506-XIII of 22.06.1995 on Phytosanitary Quarantine, the General Inspectorate of Phytosanitary Supervision and Seeds Control, which operates in the subordination of the Ministry of Agriculture and Food Industry, with its territorial subdivisions, is the competent administrative authority in the field of phytosanitary quarantine control [6].

The control of production, materials and objects subject to quarantine is carried out to attest observance of relevant requirements on export, import or transit of quarantine objects or pests, diseases and weeds not subject to quarantine. According to the above-mentioned Law, the phytosanitary quarantine control implies as follows: examination of goods accompanying documents; verification of goods identity and integrity; visual examination of goods for purposes of identifying quarantine objects and observing other phytosanitary conditions.

Conclusions

The general conclusion is that the domestic market of sunflower embeds a combination of factors (market deficiencies, state interventions, but, as well, the domination in the market on only one company), which ultimately results in maintenance of low prices and non-transmission of international prices to farmers’ level in Moldova. The joint stock company “Floarea Soarelui”, the largest processor and actor in the market of sunflower seed acquisition, but, as well, the largest exporter of the finite product – sunflower oil, holds almost 70 % of the market of sunflower seed acquisition, thus dominating the market and having certain capacity to set the acquisition price outside the free market conditions.

It could be stated that two domains stand out within the agenda of activities to be developed to increase the utility of sunflower production in Moldova: (i) production quality, which implies measures of productivity and reduction of areas under sunflower to observe crop rotation; and (ii) creation of all conditions to set the sunflower price under the free market conditions, without any influence by dominant companies in the market.

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