

Peretiatchko I. V., postgraduate student¹
Poltava state agrarian academy

**THE EVALUATION OF ECONOMIC EFFICIENCY
OF PRODUCING AND SELLING SUNFLOWER SEEDS
AT AGRICULTURAL ENTERPRISES OF UKRAINE**

Reviewer – doctor of economic sciences, professor X. Z. Makhmudov

Increasing demand for oilseeds in the world agricultural markets and in the agricultural market of Ukraine has been observing in recent years. Especially popular are sunflower seeds and derived products. That situation came under heightened scrutiny. This research examines the economic efficiency of production and selling sunflower seeds at agricultural enterprises of Ukraine. It is based on the Ukrainian summary statistical reports (2006–2011) and analyzes the main economic indicators of sunflower seeds production. The factors influencing performance of the enterprises in this profile are defined; the dynamics of sunflower seeds processing volume in Ukraine has been studied.

Key words: *economic efficiency, sunflower production, profit, profitability of sunflower production.*

The problem. Sunflower seeds production is a strategically important problem for the Ukrainian national economic development. During the studied period the enterprises of the investigated branch were in the first five branches of the food industry according to processing volume. In spite of the difficult current economical situation in Ukrainian agriculture, enterprises which produce oilseeds are profitable and able to increase the supply on the agricultural market.

The oil branch in Ukraine which is based on sunflower seeds production has a row of problems to be solved. Only in this case our country will have an internal stability and strong international market position.

The analysis of recent researches and publications. The questions connected with evaluation of economic efficiency of producing and selling sunflower seeds are studied by a large number of scientists. A considerable contribution to the research of this question A. Faizov, O. Maslak, N. Kuzminska, S. Kutcherenko and others have done. Their researches are devoted to basic aspects of the current situation of sunflower seeds market and to perspectives of its development. Special attention is paid to the world tendencies in sunflower seeds processing [1–5, 10, 11].

Respecting all the researches in this field we have to emphasize that in the most of them the effective management, prospects of development of the oil branch in Ukraine are not investigated enough.

¹ *The scientific adviser – V.I. Aranchii, PhD in economics, professor*

The task. The purpose is to investigate and analyze the evaluation of economic efficiency of producing and selling sunflower seeds at agricultural enterprises of Ukraine; to investigate the functioning specialties of sunflower seeds processing branch; to analyze the main factors which influence the branch.

The main tasks are to investigate the economic efficiency of sunflower seeds producing at agricultural enterprises; to reveal the main tendencies of the crop producing and consumption and to emphasize the influencing factors.

The materials and the methods of the research. The base materials of this research were the State Statistics Service’s data and international statistical organizations’ data. The methods are the ones connected with dialectical and integrated approach: abstract and logical, comparison, settlement and constructive.

The main research. The world market of oil products at present gained a rapid development which is caused by the increasing demand for edible oils and fats of vegetable origin and using oilseeds for technical purposes. According to statistics, world production of vegetable oils in the past five seasons has increased by 25% while increasing of the grains was only 8% [10]. Consumption of oilseeds in the world has a tendency to increase. Last season, the demand for oilseeds exceeded 455 million tons, more than the average annual rate of the past ten years by 20% (Fig. 1) [5].

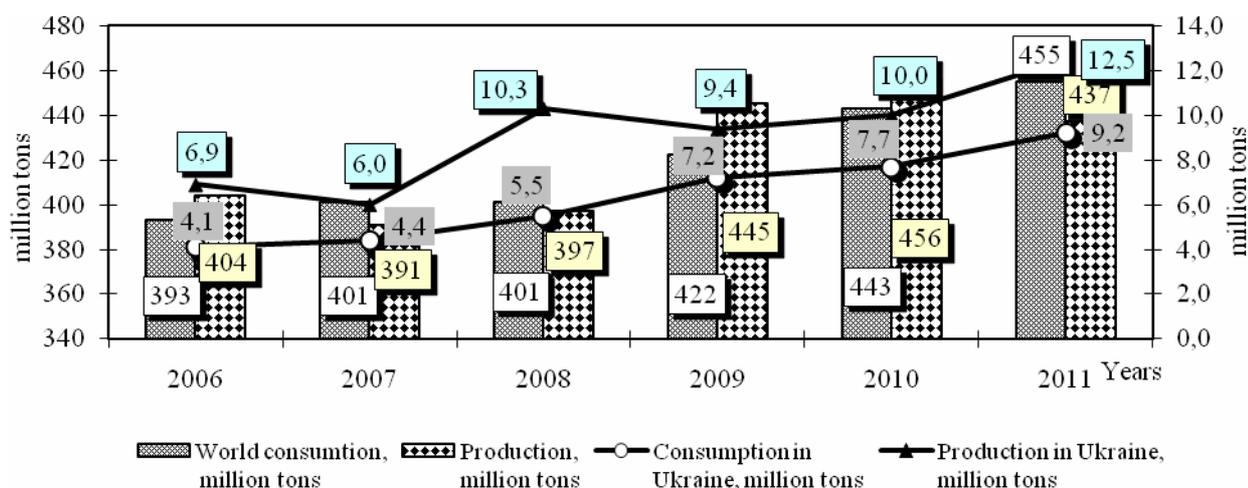


Figure 1. Production and consumption of oilseeds in Ukraine and in the world in 2006-2011, million tons

The basis of the oil and fat industry of Ukraine is the production and processing of sunflower. Thus, in 2011 the structure of production of oilseeds in Ukraine sunflower farms was 69.6% (Fig. 2).

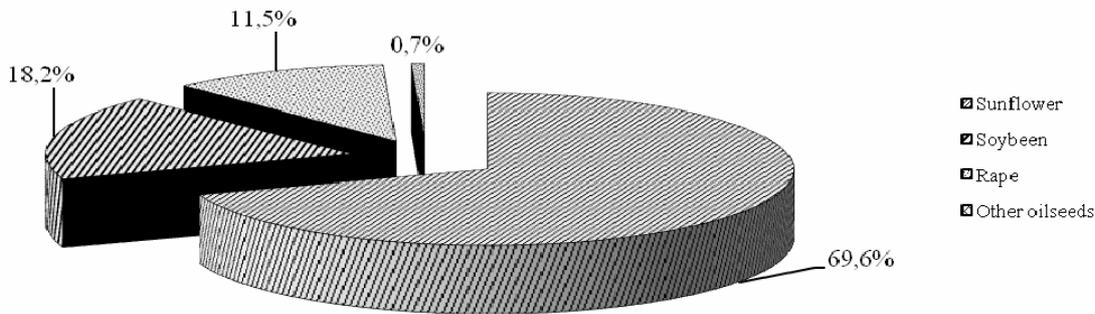


Figure 2. The structure of oilseed crops in agricultural enterprises in Ukraine in 2011, %

Sunflower is a strategically important crop for the agriculture of Ukraine. Our country has the leading position in the world for the gross harvest of this crop. The popularity of sunflower can be explained by a significant oil release per unit of area (about 750 kg/ha on average in Ukraine) [2]. In our country share of the sunflower in total oil production is 98 % [1].

The greatest producers of sunflower seeds in Ukraine are the medium and large agricultural enterprises. In 2011 these enterprises produced 84.1 % of all sunflower seeds manufactured in Ukraine.

The sunflower production in Ukraine increases. Over the past three years about 6.4-8.6 million tons of sunflower seeds have been produced annually. Thus, in 2011 the production of these crops increased by 62.9 % compared to 2006. The crop area under sunflower has been increased by 19.0 % in the same period [3, 4] (Table 1).

1. Area Sown, Production and Yield Capacity of Sunflower in Ukraine, 2006–2011

Indicator	Year						Deviation, (+;-)	
	2006	2007	2008	2009	2010	2011	2011 to 2006	2011 to 2010
Area sown, thousand ha	3.964	3.604	4.306	4.232	4.572	4.717	753	145
Production, thousand tons	5.324	4.174	6.526	6.364	6.772	8.671	3.347	1.899
Yield capacity	13.6	12.2	15.3	15.2	15.0	18.4	4.8	3.4

As for agrotechnology, increasing area under sunflower is not a positive indicator. It is connected with biological properties of this crop. Sunflower depletes soil, thus it is to be returned to the previous field only in several years. But due to high prices of the crop these rules are ignored. Producers want to increase their profits and do not use agro technical recommendations. This position leads to decreasing the yields and deterioration of the soil condition [11].

Expansion of acreage under sunflower in the last period is due to the increasing demand for seed of that culture. On the other hand, it shows the way to extensive cultivation of sunflower in Ukraine in recent years that there is no rational in terms of land use, not in terms of economic efficiency. Cabinet of Ministers of Ukraine № 164 of 11 February 2010 adopted standards, value crops in crop rotations – for sunflower seed at least 7 years [8]. Thus, a high deductible charges to meet the demand for sunflower seeds is possible only if the yield culture.

It is necessary to implement such innovative technologies that will be able to increase sunflower yield and gross fees. With the removal of high-performance hybrids in recent years managed to increase yield and oil content (on average yield of sunflower in 2009–2011 was 1.5–1.8 t/ha). Practice shows that in developed enterprises of Ukraine yield of this crop may reach 2.5–3.5 t/ha. Today one of the leading European technology thanks to a growing sunflowers with agro technological requirements cultivation, favorable natural conditions of environmental management is the France’s one (Fig. 3) [1].

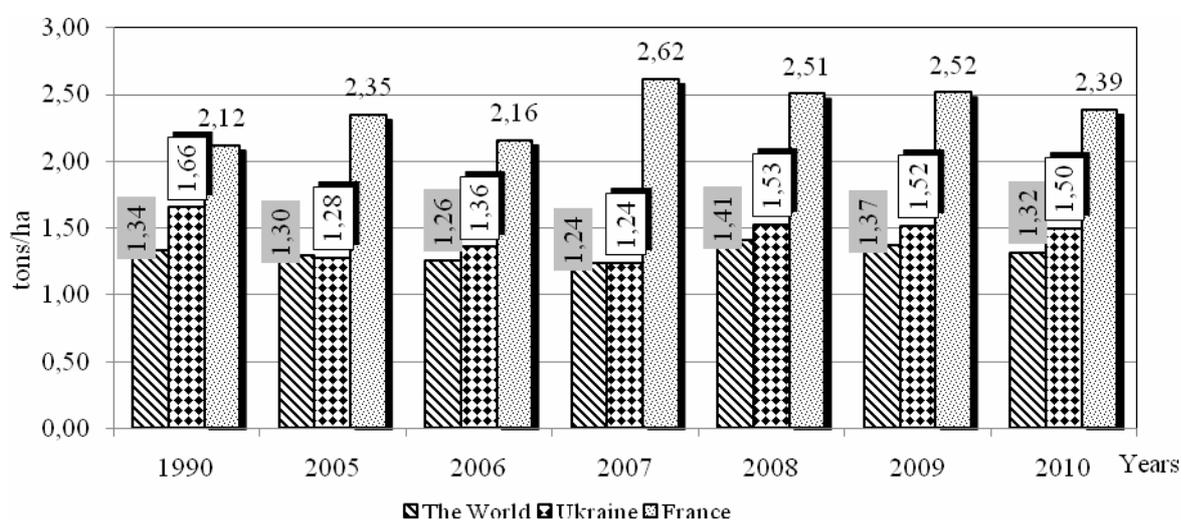


Figure 3. Yields of sunflower in Ukraine, France and in the world in 1990–2010, tons/ha

As we can see from the Figure 3, the rate of yield of sunflower in Ukraine is approaching or even exceeding the world average, but remains well below the yield performance of sunflower in France. Therefore, in our opinion, the main step in the production of sunflower in Ukraine should be the right choice of hybrid seeds agro technological growing conditions that meet the specific region and economy. Only under such conditions can keep Ukraine’s leading position in the production and processing of sunflower.

According to the State Statistics Service, we calculated the indices of production and sales economic efficiency of sunflower in Ukraine (Table 2) [3]. Thus, in 2006 the profitability was 20.7 % and in 2007 the indicator increased to 75.9 % (the highest one among all the crops). The high profitability of sunflower production was caused by increased demand for this crop. The data of Table 2 [5] show that in

2008 the prices for sunflower seeds have been decreased. The reason of that is decreased demand and increased supply. Such situation lead to reduction of the crop production profitability (18.4 %).

According to the economic results of 2011 the agricultural enterprises which produce sunflower seeds have received 6 billion hryvnias of profits. The profitability of producing sunflower seeds was 58 %. This is the highest level of profitability compared with other crops in 2011.

2. Economic Performance Indicators of Sunflower Production and Sales in Ukraine, 2006–2011

Indicator	Years						Deviation, (+;-)	
	2006	2007	2008	2009	2010	2011	2011 to 2006	2011 to 2010
	Quantity of sold produce, thousand tons	3.184	3.089	2.870	4.679	4.957	5.024	1.840
Total cost of sold produce, million hryvnias	2.477	3.383	3.368	6.279	9.116	10.321	7.843	1.205
Net income, million hryvnias	2.990	4.840	3.987	8.878	15.011	16.201	13.211	1.190
Profit (loss), million hryvnias	513	1.457	620	2.599	5.895	5.880	5.367	-155
Cost of 1 hundredweight, hryvnias	77.8	109.5	117.4	134.2	183.9	205.4	127.6	21.6
The average sales price of 1 hundred kg weight, hryvnias	93.9	156.7	139.0	189.8	302.8	322.5	228.6	19.7
Profitability, %	20.7	75.9	18.4	41.4	64.7	57.0	36.3	-7.7

Note that the high prices for sunflower seeds reduces the economic feasibility of using sunflower oil and replace it with cheaper types - palm and partly corn [11].

However, in terms of processing oilseeds in the 2006–2011 bienniums in the first place is the sunflower, the second – rape and soybeans. Volumes of sunflowers for years 1980-2011 are shown in Fig. 4.

The share of sunflower in total oil production is 98 %. Amounts of sunflower seed processing are shown on Figure 4 [3].

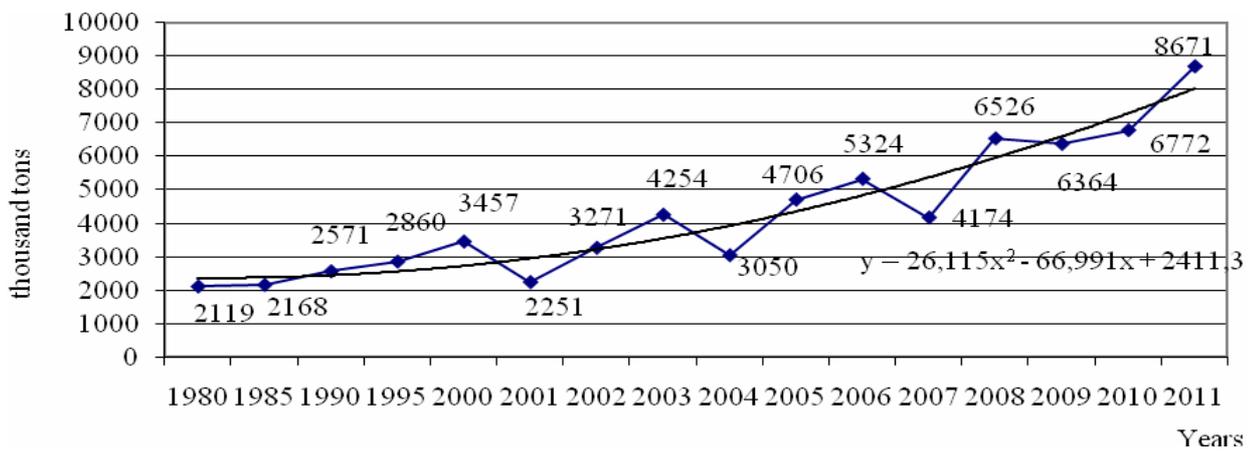


Figure 1. The Dynamics of Sunflower Seeds Processing Volume

We have analyzed the trend of sunflower processing amount changes. The polynomial trend has been used for the analysis. The authenticity approximation value is approximately 0.9 ($R \approx 0.9$). Thus, in spite of processing of sunflower decrease the amount in some years of the studied period (2001, 2004, 2007), the main trend is that of growth.

Summary. Sunflower is one of the most popular and widespread crops in Ukraine. It is also a very profitable crop. The profitability of sunflower seeds production during 2006–2011 has increased 1.8 times to 57.0 %.

The research shows that in 2011 the production of this crop increased by 62.9 % compared to 2006. The sown area under sunflower has been increased by 19.0 % in the same period.

The demand for sunflower seeds is comparatively constant. It proves the high liquidity of this crop. That is why scientifically grounded rotation of sunflower becomes more important for the cultivation process.

Agro-environmental characteristics of sunflower and its effect on soils quality can lead to negative consequences. That is why extensive way of cultivation by expanding of areas under this crop leads to the problem of soil depletion. Solving these problems needs comprehensive scientific approach.

REFERENCES

1. Андрієнко О. Не такий страшний соняшник, як його малюють / О. Андрієнко, А. Андрієнко, І. Семеняка // Агробізнес сьогодні. – 2011. – № 11. – С. 5–12.
2. Дяченко О. В. Шляхи підвищення урожайності соняшнику в умовах сучасних інтеграційних процесів України [Електронний ресурс]. – режим доступу: www.nbuu.gov.ua.
3. Кузьмінська Н. Л. Особливості функціонування олійно-жирової галузі України // Економіка АПК. – 2011. – № 12. – С. 161–165.
4. Кучеренко С. Стан олійножирового виробництва в Україні в сучасних умовах [Електронний ресурс]. – режим доступу: www.nbuu.gov.ua.
5. Маслак О. Нові олійні рекорди // Пропозиція. – 2012. – № 6. – С. 36–40.

6. Офіційний сайт Державної служби статистики України. [Електронний ресурс]. – режим доступу: <http://www.ukrstat.gov.ua>.
7. Офіційний сайт FAOSTAT. [Електронний ресурс]. – режим доступу: <http://faostat.fao.org>.
8. Постанова Кабінету Міністрів України від 11 лютого 2010 року, № 164 «Про затвердження нормативів оптимального співвідношення культур у сівоzmінах в різних природно-сільськогосподарських регіонах» – Київ.
9. Портал Аграрного сектору України. [Електронний ресурс]. – режим доступу: <http://agroua.net/statistics>.
10. *Фаїзов А. В.* Олієжировий комплекс: проблеми і фактори розвитку [Електронний ресурс]. – режим доступу: www.nbu.gov.ua.
11. *Федоряка В. П.* Ефективність виробництва і реалізації соняшнику в Україні / В. П. Федоряка, Л. А. Бахчиванжи, С. В. Почколіна // Вісник соціально-економічних досліджень. – 2011. – № 41(2). – С. 139–144.