

The analysis of price trends in the oilseed market.

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The purpose. To systematize factors of influence and to analyze price positions of oily crops in agrarian market. **Methods.** System generalization, abstract-logical, analysis and synthesis, observation, relative, graphical. **Results.** Specific factors influencing the price of oily crops in domestic market are specified, analyzed and systematized. It is established that price trends of domestic market of sunflower have the influence upon the world market, and formation of price for domestic rape and soya bean is influenced by trends in foreign markets. **Conclusions.** Analysis of price positions on products of oily crops allows to evaluate current state of competitive medium, price conjuncture and to predict the strategy of production and marketing of recognized schedule products. The stable rise in prices for sunflower, rape and soya bean has led to significant increase of squares for these crops. During the last 3 years the price for products of oily crops in home market have grown twice. That was invoked by sharp increase of expenditures for their growing. At the same time price positions in dollar equivalent decreased. The price situation in domestic market of oily crops is determined by price trends in the world market.

Key words: *agrarian market, oily crops, dynamics of production, price positions, factors of influence.*

Formulation of the problem. When planning a business in crop production, business entities are guided, above all, to maximize profits. The decision to grow a particular crop is accompanied by a planned calculation of the costs of its production and the income from its sales. The higher the margin between the costs of cultivation and the proceeds from its implementation, the more profitable and popular culture. Today, oilseeds are the most profitable. The profitability of sunflower in 2015 was 80.3% against 36.5% in 2014, rape - 44.0% against 29.2% in 2014, soybeans - 38.4% - against 34, 5% in 2014 [1, P. 12]. The price of agrarian products, as well as the price of other market products and factors of production, is the result of the interaction of supply and demand. Price, as a result of the interaction of various market forces, among other things, is determined by the structure of the market [2, p. 125]. The main factors of the high and stable market positions of oilseeds are: the developed infrastructure of oil and gas sub complex, the growing demand of domestic processors for the oilseed on the background of capacity expansion, stable export demand for sunflower oil, commodity seeds of soyabean and rapeseed, high purchasing prices.

Analysis of recent research and publications. Price trends in the domestic agrarian market were the subject of consideration by many scholars. Theoretical principles of prices and pricing methodology for agrarian products are covered in publications by O. M. Shpichak [8], Paskhaver B.Y. [5], Messel-Veselyak V.Ya. [3] Salimzhanov I.K. [8]. The issue of the correlation of price trends on the world and national agro-food markets is presented in works by Moldavan L.V. [4], Petrishin L.P. [6,7], Christopher L. Gilbert, Simone Pfuderer [13], Khomin I.P. studied the formation of competitive prices. [9], forecasting of prices for agricultural products was carried out by Vasilyeva N.K. [1].

The analysis of price positions for agrarian products provides an opportunity to assess the current state of the competitive environment, the price situation in terms of crops, and most importantly, to predict the strategy of production and marketing of planned products at the micro and macroeconomic level. The question of price analytics in agrarian markets is relevant because of the price factor for the end-producer.

The purpose of the research is to systematize the factors of influence and to present an analysis of the price positions of oilseeds on the agrarian market.

Research results. The dynamics of production indices of key oilseeds in Ukraine for 2013-2015 is positive. There was a slight increase in the gross amount of 4% (from 16.2 million tons in 2013 to 16.8

million tons in 2015) due to the increase of the sown area by 7% (from 7.4 to 7.9 million hectares) Soybean production increased at the highest pace of + 42% (from 2.7 million tons in 2013 to 3.9 million tons in 2015), with yields down from 20 c / ha to 18 c / ha. The production of sunflower is characterized as stable at the level of 11.1 million tons at a yield of 21.5 centners per hectare. The production of canola has decreased by 26.1% (from 2.4 million tons in 2013 to 1.7 million tons in 2015) with the highest growth in oilseed production by 12.3% to 26 centners per hectare. Thus, the positive dynamics of oilseeds production during 2013-2015 is ensured by an increase in the area under sowing of 58% (from 1.3 to 2.1 million hectares), 1.5% sunflower (from 5 to 5, 2 million hectares) and an increase in the yield of rapeseed from 23.6 c / ha to 25.9 c / ha. The price in the agrarian market is a significant motivating factor in making a decision on crop rotation in favor of oilseeds in farms of all forms of ownership. In this context, we agree with the statement of L.P. Petrishin suggests that relatively long-lasting and steadily rising prices for oilseeds, including sunflowers, rape and soy, have led to a significant expansion of the area of these crops [6, p. 98].

Changes in the growth of the domestic market of oilseeds are also due to the high level of profitability of production and prices, constant demand for seeds and oil, and an extensive network of sales and sales links. Among the many factors of influence the price is a key economic category, which overlaps virtually all the main problems of market development. The price serves as one of the main indicators of the efficiency of production, serves as a benchmark for making economic decisions, especially in the market relations, an important tool for intra-firm planning [8, p. 19]. Thus, according to the State Statistics Service, the average prices of sales of oilseeds (excluding VAT, freight and transport costs) for the period from 2013 to 2015 increased from 3087.5 to 7531.5 UAH / t, or almost 2 times. Price occupies a significant place in market relations, leveling the opposite economic interests of sellers and buyers of goods or services, is a flexible market instrument for the impact on aggregate demand and supply of goods and services in the market.

Prices are formed under the influence of two important factors - strategic and tactical. The strategic factor is a factor of long-term perspective action and is expressed in the fact that prices are based on the value of the goods. That is, the price fluctuations are around the value. The tactical factor often changes, as the dynamics of conjuncture changes is quite high. These factors are important in a market economy, they need to be known and used, and the greatest success is achieved by those market players who skillfully combine both factors of price change [8, p. 111].

When developing a pricing strategy, market actors should analyze and consider the factors that contribute to reducing or increasing prices for a particular product or service. The groups of factors that contribute to lowering prices include: growth in production, scientific and technological progress, reducing production costs, exacerbating competition (increasing the number of sellers), and reducing taxes. The factors that can increase prices are the following: decline in production, unstable economic situation, increased demand, increase in money supply, tax increases, wages, product quality, etc.

Investigation of the main factors influencing the price situation in the domestic market of oilseeds gave an opportunity to generalize and systematize them. It should be noted that we consider factors influencing the prices of oilseed crops through the prism of the main directions of consumption of seeds and products of its processing. In previous studies, it was found that sunflower seeds are almost entirely processed into oil, with its subsequent export to 97%. Seed and rape seeds are also exported, but in two directions - the export of seeds and oils at a ratio of 60:40. In connection with the export direction of markets for oilseeds production, the most important factor influencing the formation of price positions in the domestic market is the exchange rate fluctuations of the hryvnia against the US dollar. The devaluation of the national currency contributes to the increase of the price on the domestic market, and the strengthening of the hryvnia, by contrast, contributes to lower prices for supply and demand. The price of seeds of soybean and rape does not affect the process of pricing in the world market due to small volumes of production and is directly dependent on the supply and prices on the leading markets of the world (USA, Brazil, Argentina, EU). The opposite situation is observed on the sunflower market due to Ukraine's leading

position in its production and processing, as a result of which world prices are formed under the influence of supply and processing of domestic sunflower seeds.

The soybean price policy is also associated with small batches of seed supply from producers and low sales of soybean meal, increasing competition for raw materials between processors and export-oriented companies. Suspension of sales by sunflower seed producers in the face of high competition for raw materials provides high prices for oil. The fierce competition between large processors against the backdrop of limited supply generates a high price. The price of vegetable oils depends on the price situation in the oil market.

The level of prices is significantly affected by the basic terms of delivery of goods. The basic conditions include: costs for handling, insurance, transportation, clearance of customs documents. These terms are displayed at the price level. The basic terms of delivery in sales contracts are regulated by the standard trading conditions of Incoterms. They clearly capture the obligations of parties that engage in international trade operations and represent international rules for the use of terms of supply in foreign trade. "Incoterms" minimizes the interpretation of terms in foreign trade of different countries. All terms of external activity are grouped in Incoterms in four basic categories. The group "E" includes terms under which the buyer gets ready to send the goods to the seller's warehouse (EXW conditions). The group "F" includes conditions under which the seller is obliged to deliver the goods to the vehicles at the disposal of the carrier indicated by the buyer, as well as to execute customs procedures (FCA, FOB, FAS). Group "C" includes the conditions under which the seller must conclude a contract of carriage, but does not accept the risk of loss or damage to goods after shipment (CFR, CIF, CPT). Group "D" combines the conditions under which the seller bears all the risks and costs associated with delivering goods to their destination (DAF, DES, DEQ, DDU, DDR).

The choice of basic terms of delivery depends on the level of competition, the degree of political and regional risks, the stability and solvency of counterparties, the level of competitiveness of goods in the world market.

On the domestic market, the practice of using predominantly the terms of sale on the terms of group "E" (most often on the terms of EXW), according to which the buyer gets ready to send the goods in the warehouse seller.

The source of information for analyzing the price positions of oilseed crops on the domestic market is the reference and estimated prices for oil crops contained on the sites of news agencies, bulletin boards agrarian Internet publications, statistical information of government agencies, etc. Official price indices and average selling prices for oilseeds are provided on the website of the State Statistics Service, and their use is useful in retrospective analysis. Monitoring of the price situation is carried out by a number of periodical agrarian editions. Thus, the average prices can be found in the agrarian newspaper Agrarian week, the Oil-and-vegetable complex, and others like that. The most convenient tool for objective price analysis in terms of average, minimum, maximum, domestic and export prices for oilseeds is the data of the site Inform-Agencies "APK-Inform". In the "Prices" section, information on prices for sunflower seeds, rape, soybean and products of their processing under different delivery conditions, in different currencies, both on the domestic and foreign markets, is accumulated.

The analysis of price positions of demand and supply of oilseed crops under EXW conditions for 2013-2015 showed overall positive dynamics for the specified period, price fluctuations during 2013-2014 and a steady increase in prices in 2015. Price schedules in the context of cultures varied in the range Price values and periods of decline and rise in prices. Thus, prices for demand and supply of sunflower fell sharply in 2013. After a long period of stability in the range of 4800-5000 UAH / tone, in August prices dropped initially by 1100 UAH / tone, and by the end of the year they fell by another 600 UAH / tone, Reaching the value of 3200-3300 UAH / t. The collapse of prices came at the peak period of sales of sunflower (September-October).

As a result, the profitability of sunflower production in 2013 was 28.5% versus 45.8% in the previous year 2012. During 2014, the price of sunflower varied from 3100 to 6300 UAH / tone, in 2015 - within 7000 -10000 UAH / t. The increase in prices contributed to an increase in the profitability of sunflower

seed production to 36.5% in 2014 and 80.5% in 2015. The main trend in the price dynamics of sunflower is the decline in demand and supply prices during the period August-October, with its further growth to the end year the tendency to increase the price of sunflower is due to the needs of processors to form stocks (Figure 1).

The price schedule for demand and soy supply is characterized by positive dynamics during January-June and negative dynamics in August-October. Against the background of general price increases, there were periods of their sharp decline: in 2013 from 5800 UAH / t in July to 3850 UAH / t in September, in 2014 - from 6250 UAH / t in June to 4900 UAH / ton - in September, in 2015 - from 9900 UAH / t in February to 7950 UAH / t in September (Figure 2).

It should be noted that for 3 years the average price for soybeans fluctuated within the limits of 6175 UAH / t (price of the offer) and 6935 UAH / t (price of demand), which exceeded corresponding positions on sunflower 6073; 5778 UAH / ton Also, unlike sunflower, the price of soybeans did not fall below 4000 UAH / t. Growth in soybean prices is due, first of all, to insignificant volumes of soybean seed supply on the domestic market, as well as an appreciation of the dollar.

The price of demand for rape is characterized by positive dynamics, except for the second half of 2013, when the fall was 1000 UAH / t - from 4200 to 3200 UAH / ton. In contrast to the price of sunflower and soybeans, rape prices showed steady growth in 2014-2015, and at the end of 2015 it reached the level of 9000 UAH / t. This is due to the limited supply of rapeseed and stable demand. The average price of rape for 3 years was 5360 UAH / tones, which is the lowest indicator of oilseeds (Figure 3)

As the preliminary analysis of prices showed in terms of minimum and maximum prices, the most expensive three consecutive years is soy (from 3650-5800 UAH / t in 2013 to 7300-9600 UAH / t in 2015), the second position is sunflower (from 2900 -5000 UAH / t in 2013 to 7100-9650 UAH / t in 2015), the third - rape (from 3200-4400 UAH / t in 2013 to 6100-7500 UAH / t in 2015). But at the pace of growth, the price of sunflower, which grew by 2.4 times, has raised 2 times, soybean and rapeseed. This is due to the corresponding increase in the cost of cultivation, since only the last year the costs of sunflower seed production increased from 3500 to 6000 UAH / tones, or 1.7 times, soybeans - from 4000 to 6000 UAH / tones, or 1.5 times, Rape - from 5000 to 6500 UAH / t, or 1.3 times [10, p. 76].

The analysis of export prices for oilseeds has shown their decline for the period of 2013-2015 in connection with the devaluation of the hryvnia.

1. Prices of exports for major oilseeds in 2013-2015, USD / t *,2015 biennium due to devaluation of UAH.

Terms of delivery	2013	2014	2015	change, (+,-)
Sunflower				
Turkey,EXW Min	50	540	530	-20
Max	820	660	600	-220
Ukraine,FOB Min	450	380	400	-50
Max	690	500	440	-250
Argentina,FOB Min	390	370	350	-40
Max	620	460	390	-230
Hungary, EXW Min	90	300	20	-70
Max	400	420	90	-310
Rape				
Turkey, CIF Min	450	450	410	-40
Max	650	600	465	-185
Ukraine, FOB Min	460	390	380	-80
Max	620	485	425	-195
France , FOB Min	490	410	395	-95
Max	630	570	425	-205

Soybean				
Turkey,, CIF Min	480	450	380	-100
Max	560	600	460	-100
Ukraine,FOB Min	460	400	360	-100
Max	550	560	415	-135
Argentina, FOB Min	520	430	330	-190
Max	550	550	445	-105
Brazil, FOB Min	470	390	370	-100
Max	580	540	395	-185
USA, EXW Min	470	350	320	-150
Max	560	550	370	-190

Summarized by the author according to IA "APK-Inform".

The largest price fell to sunflower: a decrease of the minimum prices was set at 45 USD / t and a decrease of 250 USD / tone - a decrease in the maximum prices under different delivery conditions. If in 2013 the purchase of sunflower was carried out at prices of 450-690 USD / t, then in 2015 - from 20 to 600 USD / ton. Rapeseed became cheaper by 70 USD / tone (min) and 195 (max) USD / tone while the market price for rape fell from 450-650 USD / tone in 2013 to 380-465 USD / tone. The margin between the minimum and maximum soybean prices is the lowest, and the price drop was an average of 130 USD / ton. Prices of soybeans changed from 460-560 USD / tone in 2013 to 320-460 USD / tone in 2015 (Table 1).

Conclusions

Thus, in the last three years, the growth of prices for oilseed crops in the domestic market as a result of a sharp increase in the cost of their cultivation was accompanied by a decrease in price positions in dollar terms. The analysis of prices for demand and supply of oilseed crops under EXW conditions for 2013-2015 showed overall positive dynamics, price fluctuations in 2013-2014 and their planned growth in 2015. Pricing graphs in the context of cultures varied in the range of price values and Periods of falling and rising prices. The most important factors affecting the formation of prices on the domestic market of oilseeds: production and consumption, production costs, dynamics of market conditions, currency fluctuations of the UAH against the USA dollar, the level of competition for raw materials between processors and exporters, restraining sales by producers, basic delivery conditions The goods Price situation in the domestic market is determined by price trends in the world market. This situation shows the weakness of the domestic government in the possibilities of increasing the impact on the price situation. However, this does not mean that it should be kept in the future. It is obvious that the government, which cares about the income level of domestic producers in the agricultural sector, is obliged to influence price trends, as this is one of its main objectives [4, p. 101].

Bibliography

1. *Vasiliev N.K.* (2013). Forecasting prices in crop production in Ukraine and regions. *Economic Newspaper-21*. No. 11-12 (2). P. 26-29.
2. *Kyoster U.* (2012). Fundamentals of Analysis of the Agrarian Market / Sciences. Ed. Per. O. Nivievsky. Kyiv: View of Adep-Ukraine, 2012. 486 p.
3. *Mesel-Veselyak V.Ya.* (2012). Pricing factor and development of agrarian production in Ukraine. *Economy of the agroindustrial complex*. No. 1. P.179-180.
4. *Moldavan L.V.* (2012). Forms and levers of state influence on the formation of inter-industry prices and their stabilization in the agro-food complex (foreign experience). *Economy of agroindustrial complex*. №1. p.180-182.
5. *Paskhaver B.Y.* (2011). Agrarian Pricing: Requirements and Improvement Possibilities. *Economy of AIC*. 2011. №2. P. 147-150.

6. *Petrishin L.P.* (2016). The Ratio of Price Trends in the World and National Agri-Food Markets. *Black Sea Economic Studies*. Vip.6. P. 97-101.
7. *Petryshyn L.P.* (2016). Tsinovi tendentsii na svitovomu ta natsionalnomu rynkakh zernovykh i zernobobovykh ta oliinykh kultur. *Nauk. visn. Uzhhorodskoho nats. un-tu*. Vyp. 8. Ch. 2. S. 50–53.
9. *Khomin I.P., Curve Z.I.* (2013). Price mechanism of regulation of development of the agrarian market of Ukraine (theory and practice). *Scientific Papers of the Poltava State Agrarian Academy*. 2013. No. 1 (6). T.1. P. 302-308.
10. *Chekhova I.V., Chekhov S.A.* (2016). Analysis of the production of oilseeds in the zone of the Steppe of Ukraine. *Bulletin of Agrarian Science*. №11. P.72-76.
11. *Shpichak O.M.* (2015). Economic-organizational inconsistencies of relations in food chains in the conditions of inflation-devaluation processes: directions of settlement. *Economy of agro industrial complex*. № 6. P.85-95.
12. *Economic indicators of the oil and fat complex of Ukraine in March-May 2015-16 MG. Oil and fat complex*. 2016. No. 2 (53). P. 12-20. *Journal of Uzhgorod National University – that. 2016. Voice over 8., part 2*. P. 50-53.
13. *Christopher L.* (2014). Gilbert, Simone Pfuderer. The role of index trading in price formation in the grains and oilseeds markets. Gilbert, Simone Pfuderer. *Journal of agricultural economics*. June 2014, Volume 65, Issue 2, pages 303-322.