EVOLUTION AND PERSPECTIVES IN ROMANIAN OILSEED PRODUCTION

Iuliana Ionel

Institute of Agricultural Economics

Bucharest, July 2010

Content

List of Figures

List of Tables

1 Introduction

Romania has a 150 year old tradition in the production of vegetable oils. It is one of the most important producers of oilseeds in Europe. Typically the main oil crops are: sunflower (66 %) rapeseed (30 %) soybean (3 %) and other 1 %.

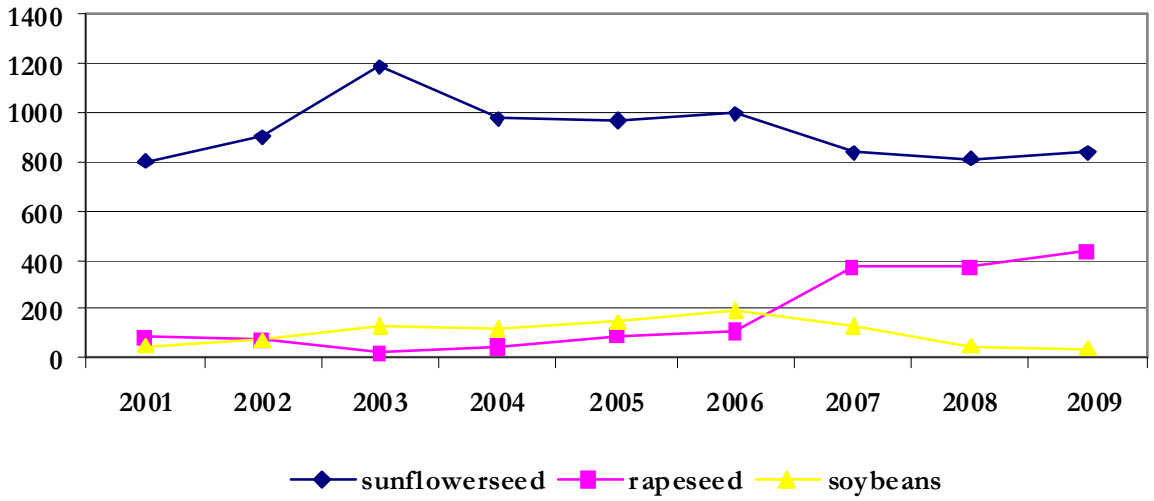
In the year 2009, oilseeds covered 16 % of the total arable land in Romania, while rapeseed occupied 35% of the oilseed growing area. Rapeseed is generally cultivated after wheat and sunflower.

The vegetable oil industry experienced an upward trend in the last 20 years, mainly due to a steady increase in sunflower production and to a constant demand for raw oilseed oil and of oilseed meal on the foreign market.

2 Analysis of the primary production sector

The area planted with oilseeds experienced a general increase from 2000 to 2008. One of the main causes of this rise was the rapid increase in the areas planted in rapeseed compared to the decrease in those planted with sunflower and soybeans (a result of the ban on cultivation of genetically modified soybeans).

Figure 1: Total area cultivated with oilseeds in the period 2000-2009 (1,000 ha)



Source: Statistical Yearbook, for the year 2009 the data are provisional data of the Ministry of Agriculture, Forestry and Rural Development

When investigating the areas cultivated with oilseeds by types of farms, we can notice a relatively imbalanced situation between the individual agricultural holdings and the com-

mercial agricultural companies in the year 2009 in favor of the commercial farms due to the decrease in area dedicated to the cultivation of sunflowers on individual holdings.

Sunflowers are cultivated on the largest areas by the individual farmers (63-55 %), this happens when manual weeding is used for weed control.

As regards soybeans, the largest share is grown by the commercial agricultural companies, which have the necessary machinery and experience in soybean cultivation.

Rapeseed was cultivated mainly by commercial agricultural companies (95-96 %) due to the availability of agricultural machinery at harvesting time (see table 1).

Table 1: Distribution of oilseed acreage between farm types (in %) - 2008-2009

Items	2008		2009	
	Agricultural commercial companies*	Individual holdings	Agricultural commercial companies*	Individual holdings
Total oilseeds	56	44	61	39
Sunflower	37	63	45	55
Soybean	77	23	80	20
Rapeseed	95	5	97	3

Source: Ministry of Agriculture and Rural Development, the agricultural commercial companies are represented by the companies established on the basis of Laws 31 and 36

The area planted with sunflower seeds experienced a constant increase in Romania, beginning with the year 1989. Crop rotation limited the increase in areas planted with sunflower to 1 million hectares. Sunflower is the only crop in which self-consumption, on farm, is below 3 %, and in this case most of the sunflower seeds are used to obtain cold pressed oil.

Sunflower remains a top export product in Romania, and the exported surplus continues to diminish as the raw material needs for processing on the domestic market increase.

Farmers take into consideration that the sunflower is the crop requiring the simplest cultivation technology: it does not imply high input costs (small quantity of seeds for planting, use of herbicides only), and, after the plant reaches the 5-leaf stage, the only other operation effected by the farmer is harvesting.

When GM soybeans were grown (before 2007) the area cultivated was larger. The agricultural companies used to cultivate GM soy varieties because they had access to irrigation and to modern technology. After that, soybeans continue being cultivated only when the

crop is established on chernozems[1] with surface ground water. In 1989 the average yields were 0.6 t/ha due to a drought and to the fact that the area cultivated with soybean had been extended outside the area suitable for cultivation. Thus, in dry years, the soybean harvest can be lost if no irrigation is used.

Stimulated by a very high demand for biofuel production, the farmers began to cultivate rapeseed on increasingly larger areas beginning in the autumn of 2006.

In farmers' opinion, rapeseed is a crop that does not need irrigation. Yet, in dry autumns this crop can be compromised in the absence of irrigation. However, this is rarely the case, as in general the water in the irrigation canals is no longer available and farmers don't even bother planting this crop.

However, in the future, due to the increasingly high demand for rapeseed seeds, we expect that rapeseed will become an irrigated crop, and the increase in yields and incomes will be significant.

Another risk factor for rapeseed cultivation is represented by strong winter frost, which can partially or totally compromise the crop, as well as by the very mild winters that make it possible for the flower buds to emerge as early as December; in both cases production suffers.

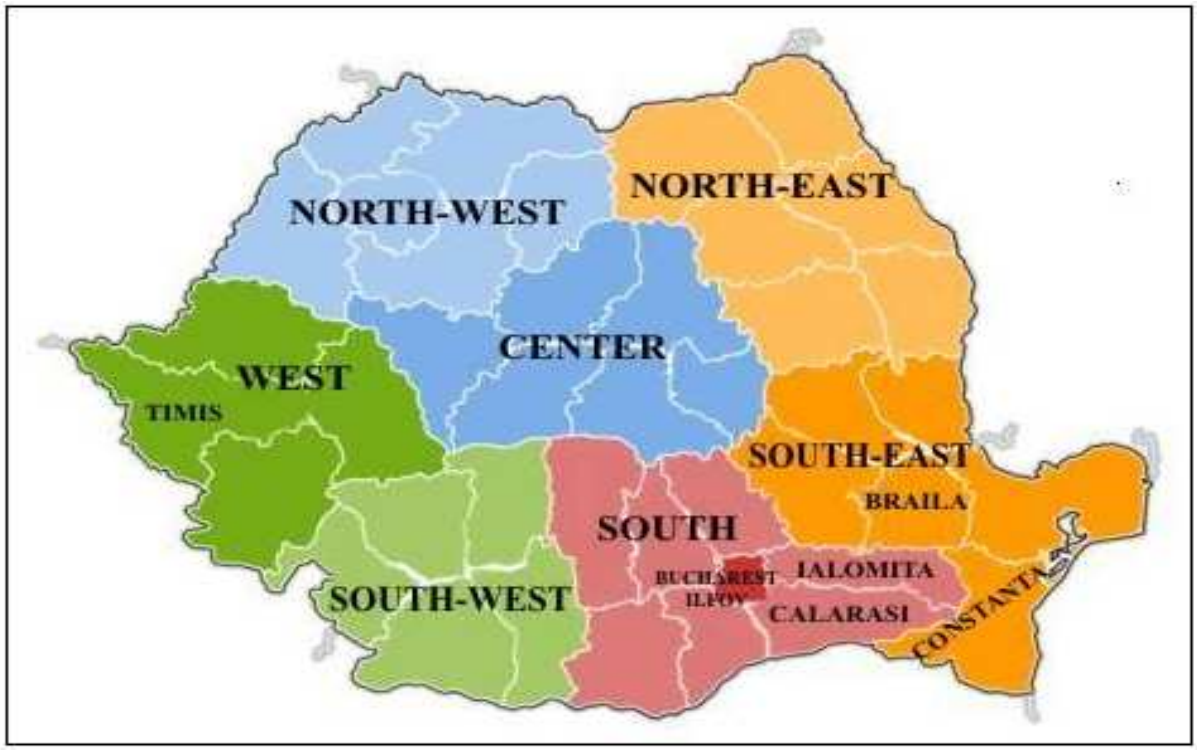
Another great stumbling block is represented by the losses due to seeds falling out of pods during the rapeseed harvesting. Generally the farmers do not plant this crop if they do not have proper harvesting combines and they carefully plan the areas cultivated with winter crops so as to harvest rapeseed and small grains at the proper time. The farmers who do not know how to plan their crop mix in relation to their own harvesting capacity may incur severe rapeseed harvest losses.

2.1 Regional analysis of oilseed areas and yields

The regions with the largest areas planted with sunflower are the following: the south, the south-east and the north -east. Here the sunflower crop finds the best growing conditions. The counties with the largest areas planted with sunflower are: Constanta, Calarasi and Ialomita. The average yields can vary depending on the year, and the regions with the highest average yields (based on a five year average) are: the north-west, the west and the central area (even though the area available for cultivation is small).

[1] Black soil rich in nutrients specific to Corn Belt, Ukraine and Russia regions

Figure 2: Romanian regional map



The largest areas planted with soybean up to the year 2006 were the south-east and the south; in the year 2007, the largest areas planted with soybean were found in the regions to the south, north-east and west. The largest areas under soybean cultivation are found in the counties Braila, Calarasi, Ialomita and Timis. The average yields ranged from 1 t/ha as the 2007 average, which was an extremely dry year, to 2.19 t/ha as the 2005 average, an extremely rainy year.

Rapeseed is mainly cultivated in the regions to the south-east and south. The counties with the most significant cultivated areas are Calarasi Constanta, Ialomita and Braila. It can be noticed that in the year 2007 the areas planted with this crop increased in all regions 3 to 8 times.

Table 2: Rapeseed yields by regions 2005-2009 (t/ha)

	2005	2006	2007	2008	2009
1. North - East	2.408	1.394	1.125	2.254	1.207
2. South - East	1.853	2.028	1.071	1.981	1.288
3. South - Muntenia	1.702	1.511	0.944	1.669	1.290
4. South - West Oltenia	1.596	1.579	0.872	2.113	1.552
5. West	1.312	2.002	1.772	1.907	1.649
6. North - West	1.550	1.465	1.171	1.804	1.268
7. Center	0.972	1.289	1.184	1.674	1.431
8. Bucharest - Ilfov	1.151	0.922	0.770	1.172	1.157
Total	1.828	1.660	1.035	1.913	1.319

Source: National Institute for Statistics

The oilseeds yields in Romania vary according to weather conditions such as sever drought (2007 was the most sever drought in the last 100 years) or too much rainfall (such as the year 2005). In general, on the individual holdings, old-fashioned technology is applied which means lower yields in combination with low quality products. In Romania, farmers have limited access to credit so they use minimum inputs, resulting in low outputs. At different types of farms there are wide ranges of yields based on size or farm management, financial possibilities, technology applied and farm location. In some cases there are neighboring farms with almost the same conditions but due to differing management the yields are very different.

2.2 Production costs – case study

After 1989, oilseeds were the only agricultural commodity bought immediately after harvest, and for that reason the oilseed crops have become increasingly popular with farmers. In 1999, shipments amounting to 50,000 t of rapeseed were exported and as a result rapeseed became farmers' favorite oilseed crop. Despite problems that could occur during the winter with rapeseed, crop farmers started cultivating more areas. For example: in the year 2007 during the severe drought in Romania, the farmer obtained high gross margins only from rapeseed, even then the yield was near 1 t per ha. Compared with other crops, rapeseed remained the preferred crop until now.

Rapeseed is appreciated by both corporations and individual landholders. The area cultivated depends primarily on the farm's capacity to harvest the crop in time.

The rapeseed yield is not very high, at the national level, because farmers used different type of inputs, and technology. Due to the problems that could occur during the winter

(that can affect partially or totally, the crop) farmers tend to minimize their losses, and as a rule they tend to use less pesticide and fertilizer. On average, the autumn cost for winter rapeseed does not exceed 100 or 150 €/ha.

I will present the case study conducted in the year 2008 in the southern region of Romania on a corporate farm. This farm has its own agricultural machinery and works 4,200 ha of which 50 % is rented land.

Usually, the farmer calculates all his costs and then divides them into direct costs and indirect costs. They consider direct costs the expenses such as: (1) agricultural machinery by type, which they divide based on the percentage of use for each crop including plowing, disking, seed bed preparation, sowing, herbicide application, mechanized weeding, and harvesting, which was calculated separately: (2) and input costs, the farmer calculates separately, by each type of crop- seed, plant protection and fertilizer which are included in one total when it is applied in autumn or counted separately when it is applied at sowing or during crop growth. Indirect costs include such costs as: crop insurance, wages, share of capital amortization per year and per hectare, and rent.

In the case of sunflowers, the costs for an average yield of 2 t/ha obtained on an area of 747 ha totaled 499 €/ha, with the following share of different costs in total cost:

– direct costs 78 %, of which: mechanical work 294 €/ha (plowing 71 €/ha, disking 24 €/ha, seed bed preparation, sowing, individual herbicide applications 21 €/ha, mechanized weeding 32 €/ha, harvesting 106 €/ha), inputs 90 €/ha (of which: seeds 40 €/ha, crop protection products 50 €/ha);
– Indirect costs 22 %, of which: wages 99 €/ha, amortization 11 €/ha, insurance 5 €/ha.

The sunflower subsidy was 20 % of total costs, of which 95 % is a direct payment per hectare and 5 % a bioenergy subsidy.

Table 3: Production costs for sunflower – case study

DESCRIPTION	
Area	*747 ha*
Average yield	*2 t/ha*
MECHANIZATION WORKS	**294 €/ha**
Plowing	71 €/ha
Disking and harrowing	24 €/ha
Seed bed preparation	21 €/ha
Sowing	21 €/ha
Herbicide application	21 €/ha
Weeding	32 €/ha
Harvesting	106 €/ha
INPUTS	**90 €/ha**
Seeds	40 €/ha
Fertilizers	0
Crop protection	50 €/ha
Indirect costs	**115 €/ha**
Wages	99 €/ha
Amortization	11 €/ha
Insurance	5 €/ha
TOTAL COSTS	**499 €/ha**

Source: field data, Romanian Central Bank exchange rate 1 € = 3.9852 Ron at 31.12.2008

The costs for rapeseed for an average yield of 2.686 t/ha obtained on an area of 600 ha totaled 599 €/ha, with the following percentage share of costs:

– Direct costs 95 %, out of which: mechanical work 323 €/ha (plowing 74 €/ha, disking 26 €/ha, seed bed preparation, fertilization and sowing each of them 23 €/ha, crop protection and herbicide application 42 €/ha, harvesting 113 €/ha), inputs 246 €/ha (out of which: seeds 66 €/ha, fertilizers 76 €/ha, crop protection products 103 €/ha)

– Indirect costs 5 %, out of which: wages 11 €/ha, amortization 13 €/ha, insurance 6 €/ha.

The rapeseed subsidy accounted for 47 % of total costs out of which 44 % is the direct payment per hectare and 22 % seeds, 25 % fertilizers, 9 % crop protection products.

Table 4: Production costs for rapeseed – case study

DESCRIPTION	
Area	*600 ha*
Average yield	*2.7 t/ha*
MECHANIZATION WORKS	**323 €/ha**
Plowing	74 €/ha
Disking and harrowing	26 €/ha
Seed bed preparation	23 €/ha
Sowing	23 €/ha
Crop protection and herbicide application	42 €/ha
Fertilization	23 €/ha
Harvesting	113 €/ha
INPUTS	**246 €/ha**
Seeds	66 €/ha
Fertilizers	76 €/ha
Crop protection	103 €/ha
Indirect costs	**30 €/ha**
Wages	11 €/ha
Amortization	13 €/ha
Insurance	6 €/ha
TOTAL COSTS	**599 €/ha**

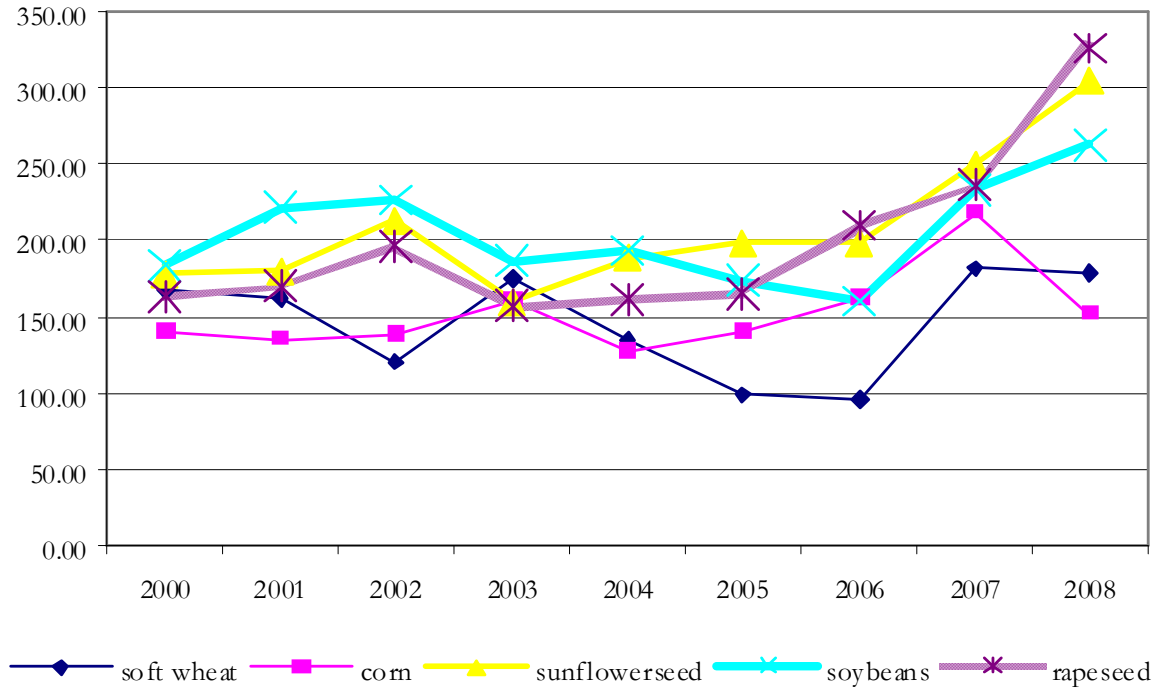
Source: field data, Romanian Central Bank exchange rate 1 € = 3.9852 Ron at 31.12.2008

2.3 Prices and profits

Oilseed prices, in general, have always been higher than grain prices. Oilseed prices differ throughout the country side, the best price can be obtained near an oil factory or near the Black Sea or a Danube port.

In the year 2008 Romanian farmers obtained a higher price for rapeseed compared with sunflower, soybeans or soft wheat and corn, this fact is reflected in the planting area for the marketing year 2008/2009.

Figure 3: Average Romanian commodity prices, 2000-2008 (€/t)



Source: Statistical Yearbook

During the interviews with farmers, it was found that the gross margins obtained for rapeseed were about 3 times higher than wheat, hence the increased interest in cultivating rapeseed lately.

Thus, in the year 2008, the gross margins obtained by cultivating rapeseed were about 3 times as high as wheat and up to 10 – 16 times as high when compared to the gross margins obtained with sunflower and corn.

Table 5: Profits and prices for oilseeds & cereals in 2008

	Rapeseed	Sunflowers	Wheat	Corn
Yield t/ha	2.1	2.3	4.5	5.0
Total costs €/ha	409	405	477	455
Price €/t	367	190	135	95
Total revenue €/ha	737	437	608	475
Profit €/ha	329	32	130	20

Source: Field trip interviews

3 Processing sector analysis[2]

The Romanian oil industry is in full development, with large investments on the part of the largest foreign companies in this field (Cargill, Bunge) which absorb almost 950,000 t of sunflower seeds and about 235,000 t of soybeans. The peasant oil presses, normally process about 70,000 t/year, with an extraction rate of 25 % for sunflower while in the industrial system this rate is 42 % on average.

Romania produces significant quantities of sunflower seed oil. The market has developed very rapidly in recent years, so much so, that the international processors (from the USA in particular) produce 2/3 of the domestic oil production. The value of Romanian oil production is estimated at over 300 million dollars. (This figure does not include the 20,000 t of oil produced by the peasant oil presses that goes to self-consumption).

The domestic demand, which has remained constant, is mostly satisfied by the domestic production. A recent trend, which is quite interesting, is represented by the acceptance of the soybean oil for human consumption, mainly in the poorest regions which are more sensitive to price variations. Yet for the 2007/2008 season, vegetable oil imports, such as palm oil were available at attractive prices for the Romanian consumers.

The industry continues to grow stronger through significant investments in the replacement of equipment, mainly bottling and labeling equipment, and quality control equipment, so as to meet European Union standards. Two US companies (Bunge and Cargill), which currently cover 50 % of the Romanian market, are continuously expanding as Romania is located at the heart of the raw material growing areas (together with Ukraine and Russia) These countries will soon be the largest suppliers of refined oils in Europe. There are also local investors with significant market shares (Argus Constanta 20 %, Agricover Buzau 9.5 %), while 10 other similar companies are present on the local markets and are struggling to survive in an increasingly competitive environment.

Soybean processing is dominated by a Swiss investor. The oil production capacity is about 400,000 t, which is not fully used due to the low consumption per capita, of only 10-11 kg/year, which is only half of the average consumption in the European Union. This poses a limit on production.

Diversification is limited due to the Romanian consumers' preference for sunflower oil. There are several Romanian brands that are recognized at the national level and are pre-

[2] According to information from Romanian Oilseed Industry Associations

ferred, depending on the consumers' incomes. Both local producers and importers are trying to diversify their products and to consolidate their position on the market.

Soybean oil is mainly used for margarine production. The margarine market slightly declined, as consumption costs increased. The top three producers (Unilever, Orkla and Rozal Brinkers) make 90 % of sales. The margarine market is estimated at 60 million dollars, almost fully covered by the Romanian production. The competition is very high in obtaining the best prices for oil as raw material for margarine.

3.1 Biodiesel

Biodiesel accounts for 80 % of the biofuel market in the EU. This represents a significant change on the vegetable oil market, in terms of stocks. As a result of these changes price fluctuations have occurred. Due to the biodiesel standards in the EU, rapeseed is the most requested raw material for biodiesel production. However, there has been an increase in the use sunflower and soybean oil for biodiesel production.

It is expected that the human consumption of vegetable oils will remain relatively stable. Depending on availability and price, we can expect substitution of different oil types. The human consumption of palm oil is expected to increase as a result of much more attractive prices and generally due to consumers' preference for trans fatty acids.

Due to the position it occupies on the oilseeds market, Romania is seen as a source of raw materials for the factories from Western Europe, mainly for rapeseed.

Romania has a total biofuel processing capacity 280,000 tones/year (see page 23), in the year 2007 only 30,000 t of biodiesel were produced and 20,000 t of biodiesel were imported. In the year 2008 100,000 t of biodiesel were produced and 40,000 t were imported.

3.2 Storage sector analysis[3]

Currently, the main player on the oilseeds storage market is the company Cargill, which has about 10 % of the total storage capacity and about 50 % of the effectively used storage capacity. Here the best storage conditions are provided, and the prices practiced are quite high. These prices are not due to the superior services provided, but are rather the result of the regional monopoly this company has. Thus, only the loading / unloading operation

[3] According with storage sector association

from the silo costs about 10 €/t of product. Cargill is a company that can pay the stored product the second day after its arrival, and the prices are only slightly higher than the average prices practiced in the respective zone.

Almost all farmers sell their production of oilseeds at harvest time, as they do not have adequate storage facilities, and even if they do have storage facilities, they cannot efficiently control the self-heating phenomenon which is very frequent in oilseeds.

Cargill totals 70 million USD investments in Romania

Cargill has invested more than 70 million USD in Romania since it began its activity 12 years ago. Out of the invested amount, 10 million dollars were allocated for revamping the oil plant Olpo Podari and its silos. The company has about 1300 employees in 46 different locations and an annual turnover of 100 million dollars. Cargill began its activity in Romania in 1996 and bought the first silo in Calarasi in the year 2000. Gradually it became the most important operator on the cereal storage market in Romania, with a total storage capacity of 1 million t.

3.3 Grading

The National Commission for grading seed for consumption was established by law (Art. 18 (2) of Ordinance 141) in 2002 to regulate seed storage, to establish a certificates of deposit scheme and to establish a Guarantee Fund for certificates of deposit. The NC is a Romanian legal entity, with legal, governmental and non-profit public interest and public utility with its own management and financing.

The NC leads and manages the National System of grading seed for consumption, established by law (Government Decision 1336) in 2002. Its aim is to ensure the implementation of the conditions established by law, in order to stimulate production of quality seeds and adequate consumption through an efficient mechanism whose aim is to reduce costs, identify relevant characteristics and enhance their market appeal.

Since June 1, 2003, the grading of seed for consumption is binding at all levels, as set out in the grading seed for consumption manual.

Grading seed for consumption is carried out by authorized licensed graduates. Evaluation and approval of these persons is carried out by the NC which evaluates professional competence.

A list is approved by the Ministry of Agricultural and Rural Development and is published in the Official Gazette.

Graders can be employed by companies dealing with storage, marketing or processing seed for consumption.

According to the NC, the oilseeds received and graded in the year 2008 accounted for 82 % of total production. About 83 % of the sunflower seeds production was stored, 41 % of the stored amount having grade 1. Thus, we can conclude that the combines that were used for sunflower harvesting undergo a high degree of wear-and-tear. The soy bean seeds and the rapeseed were stored on a 53-84 % basis, while 85 % of the received rapeseed was grade 1, while for soy beans, grade 1 accounted for only 82 %.

In the year 2009, the share of received and graded oilseeds was 86 %, while the shares of different oil seeds varieties changed, i.e. an increase to 85 % of the sunflower seeds stored, to 90 % of the rapeseed production stored and a decline to 60 % of the soybeans stored.

Table 6: Stored oilseeds, out of which grade 1 (2008-2009)

Specification	2008			2009		
	Total production (in t)	Share of stored production (in %)	out of which % grade 1	Total production (in t)	Share of stored production (in %)	out of which % grade 1
Sunflower	1,208,430	83	41[4]	1,099,948	85	45
Soybean	91,533	53	82[5]	72,144	60	85
Rapeseed	719,560	84	85[6]	574,477	90	85
Total oilseeds	**2,019,523**	**82**	**48**	**1,746,569**	**86**	**51**

Source: National Grain Grading Commission

Although progress has been made in monitoring the quality of oilseeds, as long as the reporting is done only at the national level and not by production zone, the players on the oilseeds market know only half the truth, i.e. the oilseeds quality, and not the geographic area of origin.

[4] Grade 1 for sunflower: healthy seed; foreign matter maximum 2 % ; stones and metall pieces that not pass a sieve of maximum 1 mm, maximum 0.2 %; demaged seeds maximum 5 % of which: rancid seeds, maximum 1 %; mould, decayed,and burned seeds, maximum 0.5 %

[5] Grade 1 for soybeans: healthy beans; foreign matter maximum 3 % ; stones and metall pieces that not pass a sieve of maximum 1 mm, maximum 0.5 %; demaged seeds maximum 5 % of which: mould, and decayed beans, maximum 0.5 %; burned beans, maximum 1 %

[6] Grade 1 for rapeseed: healthy seed; foreign matter maximum 2 %; damaged seeds maximum 2 %

4 Marketing sector analysis

Oilseeds are one of the few agricultural crops where payment is received immediately, as it is sold immediately after harvesting.

Of the sunflower crop, only 70,000 t of seeds do not enter the producer, depositor, processor or trader system. This amount of oilseed is used by farmers to make oil in small processing units. The oil is used immediately as it is prone to oxidation.

Soybeans are generally cultivated by integrated farms that also have livestock herds. The beans are used in specialized factories and the equivalent processing value is paid. Soybean oil is used for margarine production or it is exported through the mediation of specialized traders.

Soybean oil meal is imported via specialized trade companies on an order basis. The trading company imports the oil meal when it has all the oil meal that it imports covered by contracts.

Recently, due to increasing demand for soybean oil meal on the domestic market, the oil plant from Urziceni directly imported soybeans to be processed later depending on the oil cake demand on the domestic market.

However, there are situations when the large consumers of soybean oil meal directly import soybeans that they process in specialized units depending on the feed needs.

As a result of the drastic decrease of domestic soybean production, the milled quantity diminished correspondingly. As the demand for soybean oil is very low, the direct imports of soy meal are preferred, which represent 65 % of the annual consumption.

Rapeseed is mainly produced for export, being cultivated on the farms that have their own harvesting combines. The rapeseed is sold at the harvest time to an exporter.

4.1 Trade with oilseeds and vegetable oils[7]

Romania has a positive trade balance with oilseeds and vegetable oils, except for soybeans and soybean meals, where the balance is negative.

In the year 2007, 66,000 t of sunflower seeds were imported, of which 20,000 t from the EU and 46.000 from non-EU countries; 382,000 t were exported, out of which 250,000 t to non-EU countries. The balance of trade was positive in the sunflower seed trade in the year 2007, i.e. 178,000 USD. The average import price was 965 USD/t for the imports from EU countries and only 520 USD/t for the imports from non-EU countries. The two average prices exceeded the average annual price of 401 USD-t from Rotterdam cif as it was largely influenced by the import of seeds for planting. The main suppliers of sunflower seeds in the EU were the following: Bulgaria (38 % of the imported quantity) and Hungary (54 % of the imported quantity).

The main non-EU oilseeds supplier was Moldova, with 79 % of the imported quantity, which has been, for several years, the main sunflower seed supplier for the factory at Iasi belonging to the Bunge Company.

The main outlets for the sunflower seeds were Turkey, where 232,000 t were exported, 93 % of the exported quantity to non-EU countries; and Spain (40 % of the quantity exported to EU countries).

A positive balance of trade was noticed in the sunflower oil trade in Romania, with a surplus of 24,000 Euros; 11.000 t of sunflower oil were imported and 40,000 t were exported. The main sunflower oil suppliers were Hungary with 5,000 t, i.e. 55 % of the imports from EU countries and the Netherlands with 2,000 t, i.e. 25 % of the Intra-Community trade. The average import price for sunflower oil in 2007 was 1,078 USD/t, i.e. 1,150 USD/t for the imports from the EU and 718 USD/t for the Extra-Community trade.

The main destinations of sunflower oil exports were Hungary with 20,000 t, i.e. 51 % (of the Intra-Community trade) and Greece with 7,000 t, i.e. 18 % (of the Intra-Community trade). The average sunflower oil export price was 913 USD/t, while the average cif Rotterdam price was 846 USD/t.

The sunflower oil cakes also had a positive trade balance of 16,000 USD in the year 2007, as exports totaled 114,000 t and imports about 4,000 t. The main destination of sunflower

[7] Source of data : Romanian General Customs Directorate

oil cake exports was Hungary with about 40,000 t, i.e. 81 % on the Intra-Community trade and Israel with about 20,000 t, i.e. 30 % of the extra-Community trade. The average sunflower oil cake export price was 174 USD/t compared to 178 USD/t the yearly average cif Rotterdam price.

The Netherlands were the main supplier for sunflower oil cake imports, with about 3,000 t. For the imports of soy beans, Romania had a negative balance of trade in the year 2007, with a deficit of 28,000 USD. About 69.000 t were imported and only 22,000 t were exported. The average soy bean import price was 497 USD/t while the export price was 287 USD/t compared to 335 USD/t average cif Rotterdam price.

The main soy bean suppliers were Argentina, at about 27,000 t, i.e. 45 % of the extra-Community trade, and Canada with 25,000 t, representing 41% of the extra-Community trade. The main destinations were Turkey, with about 7,000 t, Hungary about 6,000 t, Italy and Greece with 5,000 t.

In the soybean oil trade, in the year 2007, Romania had a positive balance of trade, +23,000 USD. About 15,000 t of soybean oil was imported and about 43,000 t of oil was exported. The average import price was 1,065 USD/t and the export price 902 USD/t compared to the average yearly price of 771 USD/t cif Rotterdam. The main destinations of soy bean oil are Hungary and Turkey, with 20,000 t each.

The balance of trade has always been deficient in the soybean oil cake trade. In the year 2007 the deficit was – 50,000 USD, as 217,000 t of soybean oil cakes were imported and about 66,000 t were exported. The main soybean oil cake suppliers were Argentina with 108,000 t and Brazil with about 100,000 t. The average soybean oil cake import price was 341 USD/t while the export price was 358 USD/t, as against the average yearly cif Rotterdam price of 276 USD/t.

In the rapeseed trade, the balance of trade was positive, i.e. 96,000 USD. A quantity of 97,000 t was imported, and a quantity of 279,000 t was exported. The main destinations of Romanian rapeseed exports were: Pakistan 66,000 t, United Arab Emirates 60,000 t and the Netherlands 59,000 t. The average rapeseed import price was 1,106 USD/t, being influenced by the import of seed of high biological value for planting mainly from France, Germany and Austria. The average export price for rapeseed commercial seeds were 383 USD/t compared to the average cif Rotterdam price in 2007 of 375 USD/t.

Table 7: Romania's trade with oilseeds (2005-2008)

Specification	Import (1,000 t)				Export (1,000 t)			
	2005	2006	2007	2008	2005	2006	2007	2008
Soybean	1.2	11.9	68.6	94.4	49.8	54.2	22.1	38.0
Rapeseed	0.7	4.7	9.7	26.6	111.7	130.9	279.1	361.7
Sunflower seeds	53.0	27.8	66.6	89.6	188.4	636.4	382.7	471.4

Source: National Institute for Statistics

From the rapeseed oil trade a surplus of 19,000 USD was obtained, 2,500 t were imported and 21,300 t were exported. The average import price was 899 USD/t while the export price was 1,011 USD/t, compared to the average yearly cif Rotterdam price of 852 USD/t. The main destinations of the rapeseed oil trade were Germany with 9,000 t and Hungary with about 6,000 t. The main rapeseed oil supplier was Moldova with 19,000 t.

The oil plants have limited storage facilities, enough only to cover operations for one month. That is why they mandate silos or send their representatives to silos in order to buy sunflower from farmers at harvest time and the oil plant must pay for the seeds as soon as possible.

The oil plants have long-term contractual relations with the silos and it seems that both parts are pleased with this form of partnership.

The factories appeal to several sunflower oil distribution variants:

– They export raw oil and oil meal via specialized trade companies;
– The refined oil is directly sold from the factory gate to wholesalers or supermarkets;
– The sunflower oil meals are sold on the domestic market and payment is received at the moment of delivery.

Romania has a surplus balance of trade in the trade with oil seeds, oil and vegetable oil meal.

If we examine the oilseeds trade in the year 2008 we discover that the trade balance was negative only in soybean, while for the rapeseed and sunflower trade there is a surplus in the balance of trade. The import price for oilseeds is higher as the imported amount is largely the result of the importation of seeds for planting, with a unit value much higher than that of the commercial seeds.

Table 8: Romania's trade with oilseeds (2008)

Specification	Import			Export			Trade Balance
	Quantity (1,000 t)	Value (1,000 €	Average price (€/t)	Quantity (1,000. t)	Value (1,000. €)	Average price (€/t)	in 1,000 €
Soybean	68,6	44.611	736	38,0	6.039	371	-29.548
Rapeseed	26,6	15.278	575	361,7	162.231	449	117.620
Sunflower seed	89,6	35.587	393	471,7	206.488	442	191.210

Source: National Institute for Statistics

4.2 Oilseed consumption in Romania

In Romania, the consumption of animal and vegetable fats ranged from 9.9 kg/capita in 1989 to 12.80 kg/capita in 2006. The annual fluctuations of the vegetable oil and fat consumption were mainly the result of the change in the vegetable oil price to the animal fats price ratio, correlated with the population's purchasing power.

The structure of the animal fat and vegetable oil consumption in the year 2006 reveals that 80% of consumption is represented by vegetable oil and only 20 % by animal fats. It should be mentioned that in the period December-February the highest animal fat consumption is noticed, while in the period September-October we see the highest vegetable oil consumption. Traditionally, in Romania animal fat is consumed mainly during the winter holidays, as this is the peak period for pig slaughtering. In autumn, maximum vegetable oil consumption occurs as it is the time of year when preserved vegetables are prepared and put aside for the winter. As a particularity of vegetable oil consumption, it should be mentioned that 80 % of this is represented by household consumption.

Traditionally, in Romania, sunflower oil is preferred by consumers, yet it should be also mentioned that a wide variety of vegetable oils, mainly from import, are also present on the Romanian market.

In order to increase the sales of vegetable oil and margarine, in recent year's product specific advertisements have been developed with the support of a group of processors. At this time, there are no generic advertisements for vegetable oil or margarine.

5 Oilseed Outlook for 2010-2013

In Romania, the Ministry of Agriculture estimates that the area planted with rapeseed will reach 500.000 ha in the year 2013 (25 % more, compared to 2008); while the areas planted with sunflower and soybeans will remain relatively constant. The total oilseeds production will increase on the basis of increased average yields due to improved crop management.

With the increasing areas cultivated with rapeseed, the intensity and frequency of crop-specific pests and diseases will also increase, while the technical concerns and the financial effort to control them will also grow.

In the near future, the rapeseed farmers will establish a group of professionals focused on performance and profit, having the necessary technical expertise and adequate financial power to enable them to correctly apply the best and most complete technology.

The rapeseed quantities on the market will be increasingly high, primarily due to increased yields per hectare and to a lesser extent on the basis of increased areas. The prices offered by processors/exporters will lead many farmers to give rapeseed cultivation a shot, and to apply the best technology.

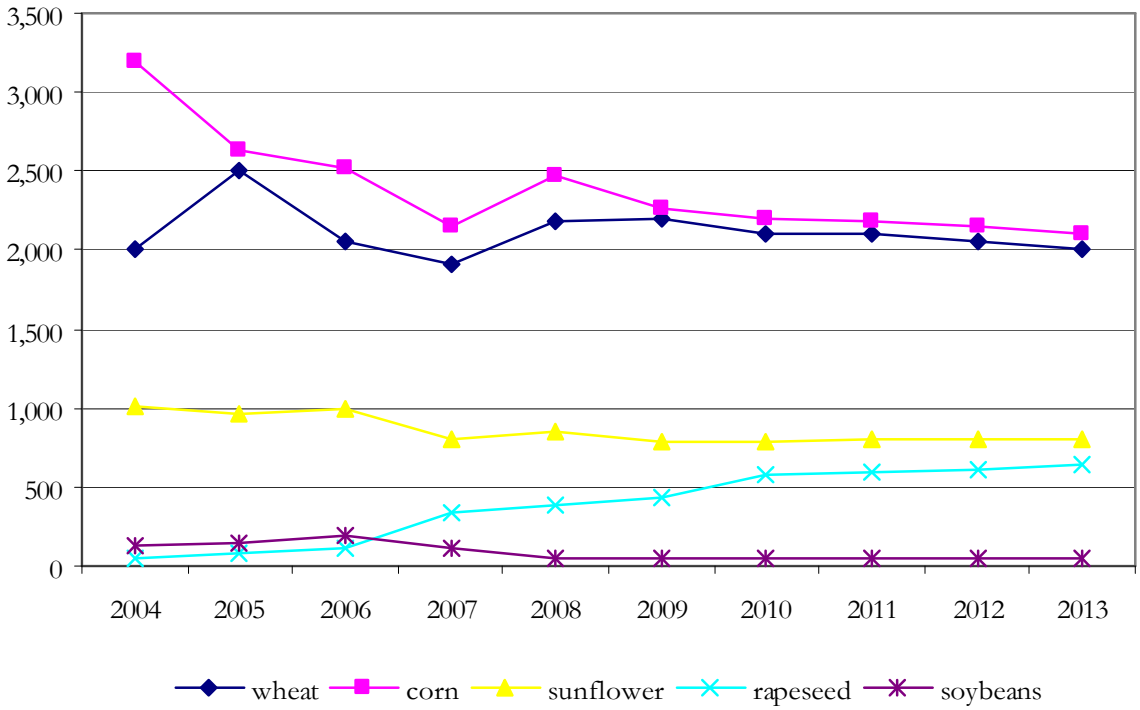
In this context, the value of inputs used by farmers will be an important contribution for obtaining high and quality yields. When proper technology is applied, the seed can make the difference, through its biological productive potential and by the concrete production elements it contains.

The factors that will determine the limitation of acreage under rapeseed at 500.000 ha are the following:

– The farmers should have proper combine harvesters, which will enable them to harvest the entire cultivated area in several days; the situation cannot be improved in the conditions of the current financial crisis. In Romania, there is low humidity in the air at harvest time, which causes harvest losses through rapeseed pod shattering, so that nobody can afford to establish a crop that cannot be harvested on time;
– The frost during the winter can diminish the areas cultivated with rapeseed or the extremely hot weather that obliges farmers to apply treatments for pests and disease control (at present the treatments for the control of pests and diseases are very rarely applied). There were years when 25 % of the rapeseed production was lost due to severe frost, and certain farmers also applied pest control treatments;
– The lack of storage facilities at farm level, as well as of transportation infrastructure, leads many farmers to limit the cultivation. The rapeseed seeds get hot if they are not

transported properly and stored in adequate spaces, their quality is depreciated, and the harvest can be more or less lost.

Figure 4: Key crops area forecast 2009-2013 (1,000 ha)



Base of interviews: oilseeds industry outlook

5.1 Product policy

Specific measures taken by the European Union for oilseeds have primarily targeted olives and olive oil. As these products are not grown in Romania, Romania cannot apply such measures.

When the oilseeds are used for biofuel production, a subsidy of 45 €/cultivated hectare is received on the condition the farmer has signed a contract with the biodiesel factory. Up to the year 2014 the Romanian farmers who cultivated land in plots which have more than 0.3 hectare will receive a single area payment, according to their cultivated areas.

Table 9: Area cultivated with sunflowers by regions 2005-2009 (in ha)

	2005	2006	2007	2008	2009
1. North - East	124.096	102.676	105.060	99.830	101.624
2. South - East	328.704	370.203	287.476	276.099	254.543
3. South - Muntenia	289.578	303.480	247.629	256.573	230.685
4. South - West Oltenia	69.743	72.860	67.665	82.927	74.065
5. West	69.698	70.455	56.614	57.447	54.996
6. North - West	69.272	51.852	59.446	49.959	57.759
7. Center	5.393	4.618	4.640	4.264	4.892
8. Bucharest - Ilfov	14.466	14.219	7.393	8.991	8.664
Total	970.950	991.363	835.923	836.090	778.564

Source: National Institute for Statistics

Table 10: Area cultivated with soybeans by regions 2005-2009 (in ha)

	2005	2006	2007	2008	2009
1. North - East	20.126	27.322	32.083	20.634	19.819
2. South - East	51.365	57.001	26.648	3.404	4.763
3. South - Muntenia	57.484	72.399	36.822	6.369	7.739
4. South - West Oltenia	1.127	1.337	0.890	0.195	0.000
5. West	8.806	26.503	28.785	17.233	4.989
6. North - West	2.433	3.096	5.417	2.298	3.159
7. Center	1.684	2.372	2.212	0.843	1.041
8. Bucharest - Ilfov	0.060	0.797	0.377	0.101	0.103
Total	143.085	190827	133.234	51.077	41.510

Source: National Institute for Statistics

Table 11: Area cultivated with rapeseed by regions 2005-2010 (in ha)

	2005	2006	2007	2008	2009	2010*
1. North - East	9.232	11.118	30.333	44.161	59.941	55.541
2. South - East	38.294	31.695	127.870	153.405	152.152	201.747
3. South - Muntenia	29.603	49.293	125.012	120.138	144.689	217.534
4. South - West Oltenia	4.008	7.458	31.751	36.660	46.724	59.858
5. West	0.586	1.744	11.997	11.159	16.861	20.296
6. North - West	0.513	2.030	8.117	5.992	8.321	6.295
7. Center	0.142	0.246	1.998	1.456	2.466	3.725
8. Bucharest - Ilfov	1.608	1.139	3.561	3.155	4.454	6.728
Total	83.968	104.723	340.639	376.126	435.608	571.724

Source: National Institute for Statistics, *planting in autumn 2009 for harvested in 2010, provisional data from Ministry of Agricultural

Table 12: Sunflower production by regions 2005-2009 (in t)

	2005	2006	2007	2008	2009
1. North – East	158.116	145.511	68.500	155.308	129.894
2. South – East	492.698	597.987	211.496	358.622	299.166
3. South – Muntenia	350.040	461.516	101.508	346.750	354.147
4. South - West Oltenia	108.958	111.606	26.887	118.689	125.935
5. West	107.478	102.297	65.570	105.909	88.765
6. North – West	105.918	83.312	64.226	104.196	94.805
7. Center	4.443	7.361	5.769	6.930	7.236
8. Bucharest – Ilfov	13.289	16.642	2.966	12.026	12.535
Total	1.340.940	1.526.232	546.922	1.208.430	1.099.948

Source: National Institute for Statistics

Table 13: Soybean production by regions 2005-2009 (in t)

	2005	2006	2007	2008	2009
1. North – East	35.457	78.447	3.262	42.061	29.928
2. South – East	121.368	94.318	24.255	8.500	9.932
3. South – Muntenia	124.249	127.233	29.218	14.853	19.832
4. South - West Oltenia	3.559	1.454	0.221	0.195	0.000
5. West	2.007	62.516	40.155	19.579	3.591
6. North – West	4.428	5.640	7.077	4.983	7.461
7. Center	3.663	4.162	2.542	1.311	1.400
8. Bucharest – Ilfov	0.050	1.094	0.006	0.051	0.079
Total	312.781	344.909	136.094	91.533	72.144

Source: National Institute for Statistics

Table 14: Rapeseed production by regions 2005-2009 (in t)

	2005	2006	2007	2008	2009
1. North – East	22.229	15.499	34.114	99.552	72.321
2. South – East	70.947	64.273	136.965	303.832	195.908
3. South – Muntenia	50.374	74.467	118.069	200.498	186.686
4. South - West Oltenia	63.98	11.773	27.694	77.446	72.527
5. West	0.769	3.492	21.262	21.285	27.803
6. North – West	0.795	2.973	9.507	10.811	10.547
7. Center	0.138	0.317	2.366	2.437	3.530
8. Bucharest – Ilfov	1.851	1.050	2.741	3.699	5.155
Total	153.501	173.847	352.718	719.560	574.477

Source: National Institute for Statistics

Table 15: Sunflower yields by regions 2005-2009 (t/ha)

	2005	2006	2007	2008	2009
1. North – East	1.274	1.417	0.652	1.556	1.278
2. South – East	1.499	1.615	0.736	1.299	1.175
3. South – Muntenia	1.209	1.521	0.410	1.351	1.535
4. South - West Oltenia	1.562	1.532	0.397	1.431	1.700
5. West	1.542	1.452	1.158	1.844	1.614
6. North – West	1.529	1.607	1.080	2.086	1.641
7. Center	0.824	1.594	1.243	1.625	1.479
8. Bucharest – Ilfov	0.919	1.170	0.401	1.338	1.447
Total	1.381	1.540	0.654	1.445	1.413

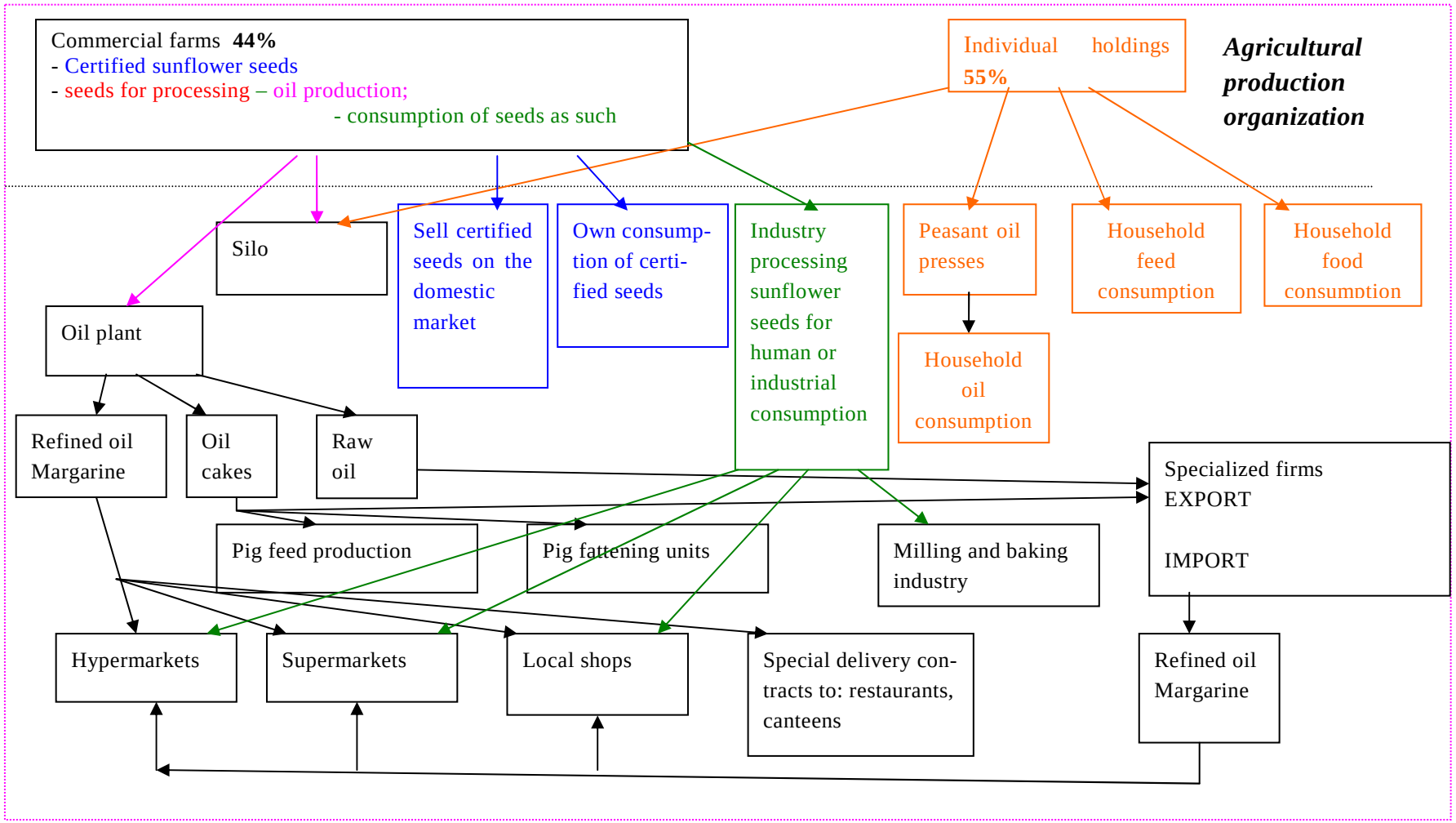
Source: National Institute for Statistics

Table 16: Soybean yields by regions 2005-2009 (t/ha)

	2005	2006	2007	2008	2009
1. North – East	1.762	2.871	0.102	2.038	1.510
2. South – East	2.363	1.655	0.910	2.497	2.085
3. South – Muntenia	2.161	1.757	0.793	2.332	2.563
4. South - West Oltenia	3.158	1.088	0.248	1.000	0.000
5. West	0.228	2.359	1.395	1.136	0.720
6. North – West	1.820	1.822	1.306	2.168	2.362
7. Center	2.175	1.755	1.149	1.555	1.345
8. Bucharest – Ilfov	0.833	1.373	0.016	0.505	0.767
Total	2.186	1.807	1.021	1.792	1.738

Source: National Institute for Statistics

Attachment 1: Sunflower flow chart



Attachment 2: Situation of the Romanian biofuel producers licensing

A) THE OWNERS OF LICENSES ISSUED BY THE LICENSING DEPARTMENT FROM THE MINISTRY OF ECONOMY AND FINANCE

1. SC AUTOELITE SRL, Baia Mare, str. Baii, nr.3, jud. Maramures;
2. SC BLITZ TRANSPORT COMPANY SRL, Comarnic, str. Podu Lung, jud. Prahova;
3. SC ULEROM SA, Vaslui, str. Podul Inalt, nr. 2, jud. Vaslui;
4. SC PRIO BIOCOMBUSTIBIL SRL, Bucuresti, str. Dr. Raureanu, nr.1, bloc 1. scara 1, apart. 1, etaj 1,sector 5, (locatie Lehliu Gara);
5. SC V & G OIL 2002 SRL, Odobesti, Sos. Vrancei, km 6, jud. Vrancea;
6. SC VIROMET SA, Victoria, Aleea Uzinei, nr. 8, jud. Brasov;
7. SC ANYKPROD SRL, Gradinari, sat Petculesti, nr. 159, jud. Olt;
8. SC LETSOL IMPORT EXPORT SRL, Slatioara, sat Salcia, nr 11, jud. Olt;
9. SC CHIMOFARM SRL, Roman, str. Nordului, nr.3, jud. Neamt;
10. SC ULTEX SA,Tandarei, str. Teilor, nr. 51, jud. Ialomita .
11. SC BIO DIESEL SRL, comuna Murgasi, sat Picaturile, jud. Dolj;
12. SC REM PETROL TRADE SRL, Pitesti
13. SC NICOL ZOE IMPEX SRL, com. Cosambesti,sat Gimbasani jud. Ialomita
14. SC BIOVILLE SRL, Ramnicu de Jos jud.Constanta
15. SC BYOTECH PROD SRL, Ploiesti, jud Prahova
16. SC EURO PETROLEUM SRL, Slatina, jud. Olt
17. SC HALCIU SRL, Daeni, jud. Tulcea ;
18. SC BIOMOTOR PROD SRL, Deveselu, str. Aviatorilor bloc A1, sc.1, et.1, ap.4, jud.Olt
19. SC CEROLA SRL, Rm. Valcea, Aleea Randunelelor, nr.1, et. 3, jud. Valcea

B) LICENSES UNDER APPROVAL

1. SC NAZAC TRADE SRL Galati,str.Constructorilor, nr.8, bl.H2, sc.1, et.5, ap. 28, jud. Galati;
2. SC PROFILAND SRL,Galati, Sos. Smardan, nr. 1A, jud. Galati;
3. SC SNOOKER CLUB SRL, Tg. Jiu, str. Energeticianului, nr.1, jud . Gorj;
4. SC ARTEGO SA, Tg Jiu,jud Gorj;
5. SC MARSAT SA, Roman, jud Neamt;
6. SC RBD SIGMA SRL, Sacele, jud Constanta;
7. SC START BIO 2007 SRL, Satu Mare, str. Randunelelor, nr 20, jud Satu Mare;
8. SC CHEMISSION SRL, Cugir, str. Closca, nr 47, jud Alba.