

# An insight into Romanian organic wine farming

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**Abstract:** Sustainable development is a term we hear every day in the media, and not only, because it is an important matter all over the globe. Nations turn towards sustainable development, since in the latest years we started hearing more and more that our planet's resources are finite, and we are getting close to finishing them. Given the fact that the sector of the food industry is in full development, the market is not yet saturated and there are a lot of opportunities for businesses. In this viewpoint, I analyze the expansion of the organic farming sector in Romania and the practices used in organic agriculture. People's interest in healthy living and the demand for organic products makes the sector of organic farming to be subject to a continuous expansion and improvement process. My analysis focuses on the production of organic wine in Romania, which is in its incipient phases and is not very popular among Romanian consumers. I present statistical data from the Ministry of Agriculture and Rural Development of Romania on the expansion of cultivated areas during the past seven years, as well as the changes in number of operators in the organic farming sector, I go forward to analyzing the European Commission legislation in the field, as well as the legislation of our country. The results obtained show that operators and mainly producers of organic products, organic wine in particular, lack popularity among Romanian consumers because of a low level of marketing for their products. When sales are low on the internal market, the sales on the external market are also low or non-existent.

**Keywords:** organic farming, sustainable agriculture, organic wine, marketing, Romania.

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## Sustainable development and organic agriculture

There are many phrases that can be used to define sustainable development, and one of them who made history is that of the World Commission on Environment and Development (1987): "[d]evelopment that meets the needs of the present without compromising the ability of future generations to meet their own needs" (p. 3). This definition tells us that there is an organizing principle for human life on a planet with finite resources such as Earth. It depicts a future for our world in which the way we live and use resources meets our human needs, but without harming the sustainability of nature and the surrounding environment, in such a way that the future generations will also have their needs met and resources left to live. Thus, sustainable development contains within it two key concepts: the concept of needs and the

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concept of limitations imposed on the environment's ability to meet present and future needs (Danciu, 2013; Hasna, 2007).

Sustainability is a principle that can be applied in agriculture, and we define sustainable agriculture as consisting of methods for farming that are friendly to the environment, allowing cultivation without damaging nature or the human life. Moreover, it protects the soil, biodiversity, water and the surrounding environment from adverse effects, as well as the lives of those working on the cultures or in the surrounding areas. Thus, the cultures on arable land are separated into three categories: conventional cultures (where the farmers are allowed to use herbicides, chemical fertilizers and genetically modified organisms), organic cultures, the ones that are subject to strict rules such as no GMOs, no herbicides, no chemical fertilizers, and the lands that are in conversion, between conventional and organically certified, that have the purpose to become organic.

Organic farming is, basically, an agricultural system that seeks to provide the consumer with fresh, tasty and authentic food while protecting the natural systems (Gold, 2007). In order to achieve this goal, organic farming has to follow a series of objectives, principles and common practices designed to minimize the impact of human beings on the environment, ensuring at the same time that the agricultural system works as naturally as possible. Organic farming covers activities such as: crop rotation for a more efficient use of soil resources, very strict limits on chemical synthetic pesticides and synthetic fertilizer use, food additives and other inputs, an absolute prohibition of the use of genetically modified organisms (GMOs), use of natural resources, such as manure for fertilizer or feed produced on the farm, choosing plant and animal species which show a high degree of resistance to diseases and pest and which can easily adapt to local conditions, growing plants and animals in open-air systems and providing them with organic feed.

Organic farming is at the same time part of a larger supply chain, which includes food processing, distribution and retailing, and ultimately, the consumer. The organic products are processed, distributed and retailed, with the final purpose of reaching the customer. Whenever a consumer chooses a fruit at the grocery store or an organic wine at a restaurant, he is ensured that they were produced according to strict regulations imposed by the authorities in the field, and in accordance with keeping the environment and animals healthy.

Together with the range of very delicious and healthy fruits, vegetables and meats, the organic products on the market also include: wine made from organic grapes, baby food, beer, yoghurt, cakes, pastries, cereals, bread, biscuits, cold meats, fruit juices, tinned fruits and vegetables, prepared meals, coffee, tea, and the list may continue. Products can only be labeled as "organic" if at least 95% of their agricultural ingredients are organic. Organic ingredients used in non-organic food can be listed as organic in the list of ingredients, only if they have been produced in accordance with the organic legislation. In order

to ensure transparency, the code number of the control body who certified the product must also be indicated on the package.

In a survey of certified organic agriculture world-wide containing data until the end of 2012, Stephen and Willer (2014) discovered that 37.5 million hectares of agricultural land are organically cultivated by 1.9 million producers in the world. Moreover, the regions with the largest areas organically cultivated are Oceania, with 12.2 million hectares, which are equal with 32% of the global organic managed land, followed by Europe with 11.2 million hectares, equal with 30% of the global organic managed land and Latin America with 6.8 million hectares, equal with 18% of the total. At the global level, the organically cultivated land area increased since 2011 by 0.5%, or almost 200,000 hectares. The countries where the most organic agricultural land can be found are Australia, with 12 million hectares, followed by Argentina with 3.6 million hectares and the United States with 2.2 million hectares. The countries that reported the highest numbers of producers until the end of 2012 are India, Mexico and Uganda.

In what concerns the organic farming field in Europe, as of the end of 2012, there was an area of 11.2 million hectares in Europe organically cultivated, and the number of organic farms was of more than 320,000. Of all the European agricultural land, only 5.4 percent is organic. Globally speaking, 30 percent of the world's organically managed land is in Europe. The countries that have the largest organic agricultural land are Italy, Spain and Germany (Stephen and Willer, 2013).

In Table 1, I list the countries in Europe in increasing order of their organic land. Russia and Iceland have less than 1 percent organic land, mainly because they are located in the northern side of the continent and the climate does not allow a thriving agriculture in that area. France, United Kingdom and Romania have between 1% and 5% organic agricultural land of their total land. Germany, Italy, Spain, have between 5% and 10% certified organic land of their entire territory. There are only seven countries on the European continent with more than 10 percent organically cultivated land: Liechtenstein, Austria, Sweden, Switzerland, Estonia, the Czech Republic and Latvia. (Stephen and Willer, 2013)

**Table 1.** Percentages of organic agricultural land in Europe

| Below 1% | Below 5% | Below 10% | Over 10%           |
|----------|----------|-----------|--------------------|
| Russia   | France   | Germany   | Liechtenstein      |
| Iceland  | The UK   | Italy     | The Czech Republic |
|          | Romania  | Spain     | Austria            |
|          |          | Portugal  | Sweden             |
|          |          | Norway    | Switzerland        |
|          |          |           | Estonia            |
|          |          |           | Latvia             |

**Source:** Adapted from Stepen and Willer, 2013.

**The evolution of organic agriculture in Romania**

During the past few years, together with the increase in awareness of the requirements for healthy living, the number of certified operators (which includes producers, processors and merchants, importers and exporters) in organic agriculture has increased. Organic agriculture is a dynamic system in Romania, with an annual growth rate of 23% according to the Ministry of Agriculture and Rural Development, which is a real help for the economy and increases the interest in the rural areas. We see on the shelves of the hypermarkets more and more products labeled “bio”, “eco”, “organic”, “natural” or „100% natural”.

People tend to buy products when they see “100% natural”, or any of the above words mentioned on the package, because the world is now facing a trend where everybody wants to have a healthy life-style, eat healthy and go to the gym in order to avoid illnesses or early death. Merchants strive to offer so called “natural” products, and to induce in the consumers’ mind the idea that they are dealing with organic products. The term “natural” or “100% natural” found on the label of some products is nothing but a marketing strategy, as it does not necessarily offer the guarantee of a quality product and for sure it does not indicate an organic product. It is a legislative loop identified and exploited by merchants, which does not mention anything regarding labeling and classifying products as “natural”. In reality, there are no equivalences between a product labeled “natural” and a product labeled “eco” or “bio”. There is no difference between the terms biologic, organic and ecologic. All of these terms define the same thing, a product obtained according to the law, without the use of chemical substances, without genetic interventions, in harmony with nature and environmentally friendly, but also certified by an authorized body. Figure 1 depicts the differences between the products which are labeled “organic” and the ones which are labeled “natural”:

**Figure 1.** *Organic vs. natural products*

|   | ORGANIC     | NATURAL         |
|---|-------------|-----------------|
| Toxic persistent pesticides and herbicides        | Not Allowed | Allowed         |
| GMOs  | Not Allowed | Allowed         |
| Antibiotics                                       | Not Allowed | Allowed         |
| Growth hormones                                   | Not Allowed | Allowed         |
| Sludge and irradiation                            | Not Allowed | Allowed         |
| Animal Welfare requirements                       | Yes         | No              |
| Lower levels of environmental pollution           | Yes         | Not Necessarily |
| Audit trail from farm to table                    | Yes         | No              |
| Certification required, including inspections     | Yes         | No              |
| Cows required to be on pasture for pasture season | Yes         | No              |
| Legal restrictions on allowable materials         | Yes         | No              |

**Source:** [www.stonyfield.com/obsessively-organic](http://www.stonyfield.com/obsessively-organic)

In order to be certified in the organic agriculture field, a producer must reduce to the minimum the chemical substances used in synthesis, as well as obey the European regulations in the field and follow the specific rules regarding production, labeling and control (Gold, 2007). In Romania, on the certification logo, there is written “Agricultura Ecologică” [Ecological Agriculture], with the abbreviation “ae”. Only organic products in Romania can have the “ae” logo presented below.

**Figure 2.** *The AE logo*



**Source:** [www.madr.ro](http://www.madr.ro)

Applying the EU logo on products became mandatory beginning with the date of 1st of July 2010. Using it remains optional for the imported products coming from outside the EU. Using the communitarian EU logo shown below must be accompanied by the indication of the place where the prime matter was produced. The “ae” national logo, specific for the organic products, together with the communitarian logo, are used in order to complete the labeling, with the purpose of making it easier for the consumers to identify the products which were obtained according to the organic production methods.

**Figure 3.** *The communitarian logo*



**Source:** [www.madr.ro](http://www.madr.ro)

In order to obtain and commercialize organic products that have the specific labels and logos, producers must undergo a very strict process. Thus, before obtaining products which can be sold with the mention “organic product”, the exploitation period must go through a period of conversion of minimum two years. Throughout the whole process of obtaining an organic product, the operators must permanently respect the rules settled in the

communitarian and national legislation. They must make their activity subject to some evaluations, made by inspection and certification bodies, with the purpose of checking the conformities with the legal provisions in force regarding organic production. After being registered in the system, producers are subject to a control system (at least one control per year), in order to make sure that the products are entirely obtained through the above mentioned process. Thus, when we discuss about organic agriculture, in the production stage, at the farms, it is prohibited to use genetically modified organisms (GMOs and their derivatives), fertilizers and synthesis pesticides, growth stimulators and regulators, hormones and antibiotics. In the stage of processing the food, the using of additives, complementary substances and chemical synthesis substances used for preparing the organic food are restricted.

In Romania, the control and certification of organic products is ensured at the present moment by private inspection and certification bodies. They are approved by the Ministry of Agriculture and Rural Development (Romanian acronym M.A.D.R.) based on independence, objectivity and competence criteria established in Order no. 65/2010 for approving the rules regarding the organizing of the inspection and certification systems, approving of inspection and certification bodies and supervising of the activity of control bodies. Not all the products and services can be certified as organic. The approval of M.A.D.R. of the inspection and certification bodies is mandatory prior to their accreditation, in conformity with the European Standard EN ISO 45011:1998, issued by an empowered body in this sense.

The “ae” logo, property of M.A.D.R, guarantees that the product thus labeled comes from the organic agriculture field and is certified by an inspection and certification body approved by the ministry. The right of using the “ae” logo on the products, labels and packages of the organic products belongs to the producers, processors and importers registered at the Ministry of Agriculture and Rural Development. In order to obtain the right of using the “ae” logo of certification and the “ae” logo of communication, the solicitants/applicants have to fill in specific request papers.

Consumers who buy products with the national and communitarian logos have the guarantee that at least 95% of the ingredients in that product were obtained in conformity with the method of organic production and that the rules of organic agriculture were followed during the production process. Moreover, the product carries the names of the producer, processor or seller and the name or code of the inspection and certification body that approved the product in the first place.

Before starting an activity in this domain, producers have the obligation to register with the Ministry of Agriculture and Rural Development. The organic agriculture producers are bind by law to register with the ministry each year, by filling in the document for registration as an ecological producer, available at the Direction for Agriculture in each county and in Bucharest in the perimeter

in which the producers run their activity. The procedure for registering of the organic agriculture producers is regulated through Order no. 219/2007 for approving rules regarding the registering of organic agriculture operators, with later modifications and additions.

The organic system in Romania has experienced an outstanding development over the past few years. The number of certified operators in organic agriculture was of 15,544 in 2012 even though there were 26,736 operators who notified their activity in the organic agriculture system at the level of county institutions for agriculture. From the operative data communicated by the inspection bodies, the number of certified operators in the organic agriculture system in 2013 was around 16,500. The evolution of the past seven years is better depicted in Table 2 below:

**Table 2.** *Dynamics of registered organic operators 2007-2013*

| Year             | 2007  | 2008  | 2009  | 2010  | 2011  | 2012   | 2013 (estimated) |
|------------------|-------|-------|-------|-------|-------|--------|------------------|
| No. of operators | 3,834 | 4,191 | 3,228 | 3,155 | 9,703 | 15,544 | 16,500           |

**Source:** *madr.ro*

In 2012, the total number of registered operators was of 26,736, from which only 15,544 were certified in organic agriculture, as follows: 15,198 producers, 103 processors and 243 merchants. In 2013, the total number of registered operators was of about 16,500, from which 16,157 were agricultural producers, 115 were processors, 204 were merchants and 24 were units for aquaculture. The cultivated areas in organic agriculture were 2.19 times higher in 2012 compared to 2007 (131,448 ha in 2007 against 288,260 ha in 2012). In 2012, the meadows and fodder plants covered 41%, cereals covered 36% of the total cultivated area in organic agriculture, followed by oil and protein plants, which covered 18% of the total area, fruit trees and grape vine which covered 2%, other cultures on arable land which also covered 2% of the total area and vegetables, with only 1% coverage.

The estimative data for 2013 registered at the Ministry of Agriculture and Rural Development show that the areas cultivated with orchards, vineyards and vegetables are increasing. This is due to the increasing interest in such kind of products, mainly because customers turn towards organically certified fruits and vegetables because they no longer trust the imported products which are usually cultivated with the help of the GMOs.

Since 2007, the total surface cultivated with grape-vine has become almost 15 times bigger. It is still a small sector of organic agriculture in our country, but it is developing very fast. The orchards have also seen an outstanding development over the same period, going from 741 hectares to 7704 hectares, which means a growth of a little over ten times. The surface cultivated with vegetables was the smallest one, of only 908 in 2012, growing from 310 hectares in 2007. The evolution of the above mentioned areas in Romania can be seen in the table below:

**Table 3.** Evolution of organically certified areas for vineyards, orchards and vegetables in Romania

|                 | 2007  | 2008   | 2009    | 2010     | 2011     | 2012  |
|-----------------|-------|--------|---------|----------|----------|-------|
| Grape-vine (ha) | 113.3 | 601    | 668     | 894.13   | 842.28   | 1,655 |
| Orchards (ha)   | 741.9 | 917.18 | 1,201.8 | 2,198.91 | 3,324.33 | 7,704 |
| Vegetables (ha) | 310   | 259.27 | 343.697 | 734,32   | 914.08   | 908   |

Source: *www.madr.ro*

In conclusion, as illustrated by the official data available from the Ministry of Agriculture and Rural Development, in Romania the trend of organic agriculture is an ascending one. We have also seen that the organically certified areas for grape-vines, orchards and vegetables are continuously increasing, due of the demand of organic products both on the internal and external markets. Thus, I continue by focusing on an example from the grape-vine area, constructed based on a case study of a Research and Development Station for Viticulture and Oenology from the South-East region of Romania.

#### **A closer look into the activities of an operator in the Romanian organic farming system**

The information provided in this section was gathered through interviews with the manager of the unit who has been in that position since 2005, before that he was the leader of the scientific researches. Since 1967, the unit in matter has participated in the development of knowledge in viticulture and oenology through scientific research and technologic development according to the modern requests of viticulture and by obtaining certified planting material and quality wines. The latest study on wine producers in our country was made by the National Institute of Statistics in 2009 and the results published showed that, although there were important grape-vine cultures that no longer exist, the region of Dobrogea is still in the top of quality wine producers in Romania. According to the NIS, the highest surface which is cultivated with grape-vine in 2009 has been registered in the South-East area. Dobrogea is leading with 40% of the total cultivated surface and is followed by the South-West region with only 18.8%.

The research station is cultivating at the present moment four organically certified kinds of grapes. The cultivation of the organic grape-vine started in 2007. At the present moment, 45 hectares with organically cultivated grape-vines are registered at the Ministry of Agriculture and Rural Development, from which 15 hectares are certified and 30 hectares are going through the conversion period.

When cultivating grape-vine in the ecological system, there are some strict norms to respect. The technologies of cultivating the lands have a few key components: crop rotation of the cultures, working the soil, fertilizing, planting, fight the weeds, diseases and cockroaches, irrigating, cutting, green works and harvesting. Any surface of land is best developed by cultivating one or more species of plants. This imposes, besides thoroughly knowing each cultivated

plant and the attributes of the soil, the climate, the flora and fauna of the area of the land to be cultivated, performing some actions that will, in any situation, positively influence both the growth and the development of the cultivated plants, as well as the quality of the surrounding environment.

Given the fact that by law, organic farms have to be subject to at least one control from an inspection and certification body authorized by the Ministry of Agriculture and Rural Development, I asked the management of the Research and Development Station for Viticulture and Oenology how often controls are made. The answer was that there is not a fixed number of controls per year, they are usually made in key moments such as when the treatments are applied to the organically certified grape-vines, when the grapes are harvested and after the harvest.

The difference between the conventional kinds of grapes and the organic ones is made by the way of maintenance of the cultures. In organic culture, the farmers are allowed to use only a few substances authorized by law (in the case of this unit, for blight – Kocide 2000 which contains copper, but they are not allowed to use more than 6 kilograms/year/treatment and Kumulus, which contains sulfur). Herbicides are strictly forbidden. The production is obviously lower because the use of certain substances is prohibited in order to protect and enhance the grapevine produce. Thus, the culture is more exposed to diseases and pests, and the final production is lower than in the case of conventional cultures.

In general, the works made on the plantations are the same for both of the cultures, the conventional and the organic one. During the manual works such as removing the weeds (because of the prohibition on using pesticides), the personnel has to be supplemented, in comparison with the conventional cultures of grape-vines, where the weeds are removed with the use of pesticides. Also, for the harvesting period, the unit hires temporary personnel (unqualified workers). In the rest of the time, the same number of employees is handling both the conventional and the organic cultures.

The wine is produced and stored separately in the unit's wine cellar, in tanks especially established for the organic production of wine. The unit does not export organic wine, nor the wine obtained from conventional agriculture, it only sells on the internal market and all the wine produced in one year is sold, there is no wine left from one year to another.

The price difference between the organic wine and the conventional wine is very small. The prices themselves are very low, because of the fact that the unit does not dispose of a bottling line, which implies selling the wine in big quantities. The price for the organic wine is of 4 RON + VAT per liter and the price for the conventional wine is of 3 RON+VAT per liter. The whole production is sold in the same year.

As the organic vineyard was started in 2007, the vine-grapes went through a growing period and only started bearing grapes in the last two years, which

means that the wine produced from the grapes harvested in 2012 was sold until the 2013 production and the production from 2013 was also sold in 2014. The production of organic wine was the same for both years, 26.000 liters. Given the fact that the unit does not dispose of a bottling line, the wine is sold in bulk, usually in high quantities. Occasionally, it is bottled manually for expositions and presentation fairs. A bottling line would allow them to sell the wine in smaller quantities and at a higher price. Creating a bottling line would allow an increase in sales in the country and also abroad. Exporting organic wine would be an enormous change in incomes and popularity.

The unit does not have a marketing department, fact that can be linked with the low performance and low profit. If the research station would create a marketing department it will be able to increase the awareness among Romanian customers towards the organic wines and the differences between organic and conventional types, this would help increase their sales, enhance their performance and level of profitability. At the moment, the manager considers that there is a low level of awareness among customers in regards to organic wine: „Given the short period of time since we have been producing organic wine and the fact that we do not own a bottling line which would allow us to enter the en-detail market, the final customer is not yet very acquainted with our products. But since we produce organic wine, there has not been one year in which we did not sell all the production.”

However, the unit has a high potential, and in the future, after the land that is now in conversion will become organic, their production will increase even more. Having fertile land is one of their most important strengths, and being situated in the South-Eastern part of the country, on the black cart is also beneficial for the growth of healthy grapes.

### **Conclusions and future directions of research**

The sector of organic farming is continuously increasing, and people are becoming aware of the importance of knowing where their food comes from and they want to be sure that the products they eat are certified by an authorized body as being organic and obtained in environmentally friendly ways and conditions. The fast-food trend is overcome nowadays by the healthy-food trend, since obesity and diabetes have become world-wide problems caused by unhealthy food.

Organic farming is beneficial for the environment, as well as for the health of animals and the human beings, and allows our generation to pass on to the next one a planet that still has resources, thanks to keeping the natural balance and natural cycles taking their courses. Respecting the natural life-cycles is crucial for keeping the planet healthy, as well as its inhabitants and surrounding environment. Two years ago, on our continent, there were only 7 countries with over 10% organically certified land of their total surface. Romania was among the countries with less than 5% organically certified land

(only 2% of Romania's total surface was organically certified at that time), but these figures are increasing annually, which is a positive aspect. This sector is probably one of the few that are not yet saturated, and presents multiple business opportunities for entrepreneurs.

The obvious facts that can be observed when taking a closer look at the organic farming system of our country are that the products coming from this sector are not very popular among Romanian consumers, mostly because of the existence of regions which register high levels of poverty, where people cannot afford to buy organic food and also the fact that most Romanian consumers do not have a fair perception towards the definition of an organic product. Given the that some consumers do not know the differences between the organic and non-organic products on the shelves of the hypermarket, the operators in organic agriculture should channel their attention towards increasing the awareness (educating and informing their customers with respect to bio products and their advantages for the customers and even for the environment) among people in order to gain more customers. Such an initiative should also be supported by the government, which should encourage the citizens to buy products made in Romania, with the guarantee that they come from the organic farming system. If more people knew how to make the difference between a product labeled "100 % natural" and one with the "ae" logo, they would buy what is beneficial for their health.

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