

ORGANIC AGRICULTURE OF ROMANIA AS COMPARED WITH OTHER COUNTRIES OF EUROPEAN UNION

Mădălina IORDACHE¹, Valentina ANDRIUCA², Iacob BORZA¹, Ioan GAICA¹,
Daniela GÎRLA²

e-mail: mada_iordache@yahoo.com

Abstract

The paper presents a case study aiming to highlight the present state of the organic agriculture in Romania as compared with other European countries with the goal to warn about its level, much under other countries taken in study. Several indicators have been considered: certified organic crop areas, certified organic crop productions and yields from fully converted areas, certified organic livestock, certified production of organic animal products, number of certified registered operators processing and importing products issued from organic farming. The results of study showed that for all studied indicators Romania reported data with lower values as compared with the other analyzed European states, and for most of items our country has no data to report. This study distinguishes on the one hand the low representation of organic agriculture in Romania as component of sustainable agriculture, and on the other hand demonstrates the lack or the inefficacy of instruments of the specialized institution of the Romanian state to collect and centralize data referring to several items which characterize the level of organic agriculture in Romania.

Key words: organic, agriculture, livestock, operators, certified

According to Directorate General for Agriculture and Rural Development of the form of agriculture that relies on techniques such as crop rotation, green manure, compost and biological European Commission, organic farming is the pest control. Also, the International Federation of Organic Agriculture Movements defines organic agriculture as „a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved...”. In the last years, it was observed an increasing interest of population for organic food products as a concern of their health state, so that the food market was changed toward a higher orientation to organic foods (Botezatu *et al.*, 2002).

MATERIAL AND METHODS

Study has been conducted using the official statistics of the European Union (EU) between years 2002 – 2011, excepting the number of certified registered organic operators with statistics only until 2010, data which are available on

http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database, last update July 2012.

RESULTS AND DISCUSSION

Ministry of Agriculture and Rural Development of Romania recognizes the role of the ecological agriculture and reveals its position regarding this role by the following statement on website: „the role of the ecological agriculture system is to produce cleaner foods, more appropriate to human metabolism, in full correlation with environmental conservation and development. One of the main purposes of the ecological agriculture is to produce fresh and authentic agricultural and food products, by environmental friendly processes”. In addition, the followings are enunciated „the ecological agriculture is a dynamic sector in Romania, which reached an ascendant evolution in the last years, both in vegetal and animal production sectors”.

Even so, studying the statistics of EU in this field, we observe that Romania is much behind other EU countries and, moreover, for several years the exact situation is unknown, it was not reported, because data referring to organic agriculture of Romania either were not centralized, either have not been reported (tables 1-6). Referring to the certified organic crop areas,

¹University of Agricultural Sciences and Veterinary Medicine of Banat, Timișoara, România

²Agrarian State University of Moldova, Chișinău, Republic of Moldova

Romania did not report statistics for years 2002-2005, but as compared with other states our country is not the last in Europe in this field,

although its land potential is greater than other European states (table 1).

Table 1

Certified organic crop areas (hectares)

| COUNTRY/TIME | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------|---------|---------|---------|---------|---------|-----------|-----------|-----------|-----------|---------|
| European Union (27) | 0 | 0 | 0 | 0 | 0 | 3,997,440 | 4,487,798 | 3,761,884 | 0 | 0 |
| European Union (25) | 0 | 0 | 0 | 0 | 0 | 3,904,464 | 4,411,965 | 3,678,022 | 0 | 0 |
| European Union (15) | 0 | 0 | 0 | 0 | 0 | 3,166,493 | 3,449,259 | 2,997,829 | 0 | 0 |
| Belgium | 24,820 | 16,176 | 19,853 | 19,764 | 21,754 | 23,842 | 27,376 | 29,778 | 30,410 | 0 |
| Bulgaria | 0 | 0 | 0 | 0 | 2,728 | 8,387 | 4,236 | 4,955 | 12,691 | 8,902 |
| Czech Republic | 0 | 195,219 | 208,000 | 226,209 | 16,319 | 224,373 | 232,939 | 267,483 | 296,379 | 0 |
| Denmark | 148,279 | 149,106 | 149,219 | 132,283 | 133,048 | 0 | 139,021 | 139,539 | 145,638 | 0 |
| Estonia | 0 | 0 | 0 | 36,487 | 44,878 | 55,445 | 71,848 | 76,200 | 82,391 | 101,906 |
| Ireland | 0 | 0 | 24,568 | 23,533 | 0 | 0 | 0 | 37,662 | 0 | 0 |
| Greece | 65,555 | 192,190 | 202,790 | 206,205 | 82,848 | 174,724 | 266,745 | 293,644 | 292,584 | 0 |
| Spain | 314,643 | 374,000 | 430,900 | 470,835 | 505,296 | 640,536 | 691,196 | 605,366 | 1,084,589 | 0 |
| France | 342,406 | 406,338 | 468,476 | 0 | 499,589 | 497,314 | 502,234 | 525,638 | 571,815 | 0 |
| Italy | 746,517 | 751,860 | 708,047 | 731,537 | 801,350 | 903,254 | 812,139 | 735,327 | 821,921 | 0 |
| Cyprus | 0 | 0 | 111 | 230 | 665 | 1,398 | 0 | 1,890 | 0 | 0 |
| Latvia | 0 | 0 | 12,142 | 20,691 | 51,213 | 62,321 | 141,524 | 141,070 | 140,946 | 0 |
| Lithuania | 0 | 0 | 18,395 | 13,905 | 30,498 | 56,542 | 89,890 | 106,060 | 103,225 | 99,410 |
| Luxembourg | 1,019 | 2,130 | 2,741 | 0 | 0 | 2,721 | 0 | 3,245 | 0 | 0 |
| Hungary | 54,264 | 70,514 | 75,834 | 84,765 | 92,167 | 98,243 | 108,578 | 110,916 | 97,584 | 101,801 |
| Malta | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 16 | 0 |
| Netherlands | 38,340 | 40,681 | 46,137 | 46,877 | 47,045 | 45,463 | 46,895 | 47,450 | 43,659 | 0 |
| Poland | 0 | 0 | 37,724 | 38,609 | 47,570 | 135,815 | 178,670 | 222,022 | 309,219 | 375,086 |
| Portugal | 35,364 | 54,480 | 75,143 | 110,370 | 0 | 0 | 0 | 0 | 0 | 0 |
| Romania | 0 | 0 | 0 | 0 | 65,111 | 84,590 | 71,597 | 83,862 | 82,981 | 96,606 |
| Slovenia | 0 | 0 | 14,354 | 15,985 | 20,151 | 23,560 | 26,125 | 25,816 | 25,056 | 27,448 |
| Slovakia | 0 | 35,302 | 25,590 | 27,247 | 40,085 | 80,268 | 113,132 | 111,466 | 112,314 | 0 |
| Finland | 135,434 | 142,054 | 148,183 | 135,223 | 130,940 | 133,543 | 134,820 | 143,033 | 142,012 | 0 |
| Sweden | 186,695 | 207,322 | 206,632 | 200,632 | 201,298 | 234,429 | 246,628 | 303,298 | 329,319 | 0 |
| United Kingdom | 536,866 | 529,482 | 535,495 | 527,836 | 489,108 | 510,673 | 582,205 | 607,940 | 651,930 | 505,582 |
| Norway | 25,255 | 30,883 | 34,957 | 36,510 | 38,881 | 40,096 | 40,376 | 43,986 | 47,027 | 50,167 |

Although certified organic crop areas exist in our country, an issue arises: the problem of certified organic production and yields from fully converted areas. In this field, Romania did not report statistics so that it appears with “not available data” in the European Union statistics,

excepting the year of 2006 (table 2). The question is what was the reason why our responsible authorities did not centralize these data: the lack of these data, the low implication in this subject, or which other?

Table 2

Certified organic production and yields from fully converted areas (tonnes)

| COUNTRY/TIME | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------|--------|------|-----------|-----------|-----------|---------|---------|-----------|-----------|
| Bulgaria | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,073 |
| Czech Republic | 44,731 | 0 | 1,038,464 | 1,508,228 | 1,610,426 | 558,951 | 643,585 | 798,277 | 0 |
| Spain | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,689,934 | 0 |
| Latvia | 0 | 0 | 79,807 | 114,896 | 369,834 | 0 | 69,257 | 344,780 | 0 |
| Lithuania | 0 | 0 | 0 | 0 | 0 | 0 | 239,916 | 97,468 | 210,399 |
| Hungary | 0 | 0 | 0 | 0 | 179,522 | 186,341 | 154,480 | 134,843 | 100,118 |
| Malta | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 0 |
| Poland | 0 | 0 | 0 | 0 | 0 | 0 | 440,199 | 709,457 | 1,026,931 |
| Romania | 0 | 0 | 0 | 603,725 | 0 | 0 | 0 | 0 | 0 |
| Slovenia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10,348 |
| Slovakia | 0 | 0 | 87,702 | 111,415 | 751,777 | 0 | 274,670 | 351,774 | 0 |
| Finland | 0 | 0 | 0 | 0 | 0 | 0 | 516,297 | 0 | 0 |
| United Kingdom | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 699,638 | 0 |

Romania has not reported data concerning the certified organic livestock between years 2002-2005, and analyzing the values reported for the rest of years it can be observed also a low value related to the great agricultural and animal breeding

potential of our country (table 3). Concerning the certified production of organic animal products, the situation is even more controversial, because Romania has not statistics reported for years 2003-2010, and only for year 2011 has been reported a

value of 4 tonnes of total meat, which makes the analyze difficult (table 4).

Table 3

| Certified organic livestock (number) | | | | | | | | | | |
|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| COUNTRY/TIME | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
| Belgium | 20,732 | 29,677 | 32,190 | 30,116 | 33,422 | 37,897 | 43,026 | 53,338 | 64,171 | 0 |
| Bulgaria | 0 | 0 | 0 | 0 | 329 | 395 | 470 | 272 | 364 | 976 |
| Czech Republic | 0 | 0 | 100,304 | 67,956 | 115,192 | 137,382 | 151,723 | 136,026 | 151,814 | 0 |
| Denmark | 144,977 | 133,279 | 125,200 | 122,760 | 132,147 | 0 | 141,896 | 170,155 | 164,523 | 0 |
| Estonia | 0 | 0 | 0 | 9,289 | 13,312 | 13,774 | 16,131 | 21,074 | 19,126 | 22,498 |
| Ireland | 0 | 0 | 0 | 21,950 | 24,450 | 29,000 | 33,200 | 32,700 | 0 | 0 |
| Greece | 7,760 | 14,219 | 14,776 | 22,900 | 22,292 | 25,104 | 20,254 | 28,618 | 23,109 | 0 |
| Spain | 0 | 0 | 53,295 | 56,701 | 81,471 | 85,598 | 101,248 | 128,004 | 143,039 | 0 |
| Italy | 164,536 | 189,806 | 215,022 | 222,516 | 222,725 | 244,156 | 216,476 | 185,513 | 207,015 | 0 |
| Latvia | 0 | 0 | 10,037 | 21,439 | 55,319 | 50,530 | 41,153 | 53,867 | 45,697 | 0 |
| Lithuania | 0 | 0 | 6,616 | 3,843 | 15,997 | 19,964 | 22,665 | 21,927 | 23,076 | 0 |
| Luxembourg | 952 | 0 | 0 | 0 | 0 | 0 | 0 | 3,252 | 0 | 0 |
| Hungary | 8,661 | 7,926 | 8,747 | 0 | 0 | 17,174 | 17,746 | 25,089 | 32,445 | 24,650 |
| Netherlands | 36,373 | 36,669 | 34,841 | 36,269 | 36,799 | 40,129 | 44,117 | 59,000 | 62,000 | 49,410 |
| Austria | 0 | 0 | 331,441 | 333,826 | 338,593 | 342,055 | 352,781 | 373,720 | 0 | 0 |
| Poland | 0 | 0 | 0 | 31,556 | 54,811 | 33,436 | 44,030 | 51,391 | 40,301 | 40,457 |
| Portugal | 8,202 | 18,329 | 54,351 | 62,218 | 0 | 0 | 69,097 | 0 | 0 | 0 |
| Romania | 0 | 0 | 0 | 0 | 11,365 | 6,985 | 7,567 | 8,145 | 5,358 | 6,894 |
| Slovenia | 0 | 0 | 13,098 | 14,539 | 14,464 | 17,488 | 18,174 | 18,238 | 20,623 | 22,915 |
| Slovakia | 0 | 8,786 | 12,761 | 20,133 | 28,922 | 28,922 | 30,433 | 33,486 | 43,668 | 0 |
| Finland | 17,134 | 18,227 | 18,029 | 19,048 | 22,409 | 25,512 | 28,574 | 32,354 | 35,879 | 0 |
| Sweden | 0 | 92,304 | 91,515 | 0 | 95,936 | 110,000 | 141,825 | 194,063 | 221,035 | 0 |
| United Kingdom | 91,310 | 216,779 | 200,959 | 214,276 | 244,752 | 250,376 | 319,587 | 331,156 | 350,183 | 334,759 |
| Norway | 0 | 0 | 18,649 | 18,533 | 18,881 | 20,311 | 21,192 | 23,863 | 27,042 | 28,441 |
| Switzerland | 145,012 | 152,583 | 155,953 | 160,333 | 160,950 | 159,630 | 156,773 | 150,905 | 148,282 | 0 |

Table 4

Certified production of organic animal products (tonnes of total meat)

| COUNTRY/TIME | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------|------|-------|-------|-------|-------|-------|-------|--------|-------|
| Czech Republic | 0 | 0 | 724 | 6,715 | 4,830 | 5,894 | 7,266 | 7,176 | 0 |
| Estonia | 0 | 0 | 0 | 0 | 1,067 | 1,158 | 987 | 1,217 | 1,546 |
| Ireland | 0 | 0 | 0 | 1,375 | 1,565 | 1,740 | 0 | 0 | 0 |
| Greece | 0 | 0 | 0 | 0 | 0 | 0 | 1,346 | 0 | 0 |
| Spain | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25,039 | 0 |
| Latvia | 0 | 0 | 552 | 1,383 | 1,758 | 5,343 | 2,767 | 2,407 | 0 |
| Lithuania | 0 | 0 | 0 | 0 | 0 | 0 | 9,009 | 773 | 0 |
| Poland | 0 | 0 | 0 | 0 | 0 | 0 | 1,459 | 2,894 | 227 |
| Romania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Slovenia | 0 | 1,272 | 5,432 | 0 | 1,161 | 1,040 | 153 | 68 | 134 |
| Slovakia | 16 | 6 | 0 | 6 | 12 | 0 | 0 | 443 | 0 |
| Norway | 0 | 0 | 0 | 0 | 0 | 1,809 | 0 | 2,283 | 2,283 |

In tables 5 and 6 are listed the number of certified registered operators processing and importing products issued from organic farming and the number of certified registered organic operators corresponding to Romania, with low values.

CONCLUSIONS

Admission of the necessity of health food by Romanians is reflected in promoting the ecological products, this sector becoming very attractive for investors, especially because the European Commission supports up to 50% of the amount provided by the information and promotion programmes proposed by the professional and inter-professional organisations, which participate with minimum 20% of the real

cost of actions, the co-funding being assured by the state budget according to stipulations stated by the Regulation (CE) no. 3/2008 of the Council regarding the actions of information and promotion of the agricultural products on the internal market and in the third countries, and by the Regulation (CE) no. 501/2008 of the Commission for establishment of the application norms of the Regulation (CE) no. 3/2008.

ACKNOWLEDGMENTS

Publishing of this paper has been financially supported by the following Romanian research grants UEFISCDI: PN II-RU-PD, contract no. 109/02.08.2010, and type PN II CAPACITATI modul III, contract no. 432/16.06.2010.

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***www.organic-farming.europa.eu.

***www.fao.org.

Table 5

Number of certified registered operators processing and importing products issued from organic farming

| COUNTRY/TIME | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| Belgium | 0 | 64 | 53 | 62 | 0 | 43 | 0 | 57 | 0 | 0 |
| Bulgaria | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| Czech Republic | 0 | 26 | 10 | 15 | 28 | 20 | 72 | 63 | 65 | 0 |
| Denmark | 0 | 0 | 0 | 66 | 51 | 0 | 53 | 131 | 128 | 0 |
| Estonia | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 | 6 |
| Ireland | 0 | 0 | 0 | 0 | 0 | 36 | 33 | 22 | 0 | 0 |
| Greece | 18 | 32 | 35 | 0 | 40 | 60 | 72 | 96 | 56 | 0 |
| Spain | 60 | 104 | 143 | 152 | 125 | 244 | 220 | 223 | 255 | 0 |
| France | 225 | 226 | 263 | 0 | 387 | 0 | 391 | 0 | 575 | 0 |
| Italy | 0 | 141 | 197 | 266 | 296 | 285 | 308 | 383 | 320 | 0 |
| Latvia | 0 | 0 | 2 | 2 | 2 | 3 | 3 | 6 | 5 | 0 |
| Lithuania | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 2 | 3 | 0 |
| Luxembourg | 3 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hungary | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 19 | 19 |
| Netherlands | 50 | 54 | 113 | 100 | 95 | 96 | 138 | 151 | 151 | 210 |
| Austria | 0 | 0 | 0 | 318 | 0 | 0 | 0 | 0 | 0 | 0 |
| Poland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 11 | 16 |
| Portugal | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 |
| Romania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 |
| Slovenia | 0 | 0 | 976 | 4 | 7 | 6 | 10 | 8 | 11 | 18 |
| Slovakia | 0 | 0 | 0 | 2 | 2 | 1 | 5 | 5 | 3 | 0 |
| Finland | 0 | 0 | 0 | 0 | 1 | 41 | 33 | 53 | 51 | 0 |
| Sweden | 0 | 0 | 0 | 0 | 35 | 61 | 71 | 128 | 64 | 0 |
| United Kingdom | 0 | 0 | 0 | 461 | 525 | 455 | 650 | 542 | 464 | 450 |
| Norway | 57 | 59 | 68 | 67 | 96 | 101 | 107 | 129 | 88 | 88 |

Table 6

Number of certified registered organic operators

| COUNTRY/TIME | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|------------------------------------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| European Union (15 countries) | 0 | 156,631 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Belgium | 1,498 | 1,310 | 1,210 | 1,282 | 1,481 | 1,558 | 1,662 | 0 | 0 |
| Bulgaria | 0 | 0 | 0 | 0 | 214 | 339 | 311 | 0 | 0 |
| Czech Republic | 0 | 1,095 | 1,123 | 1,234 | 1,167 | 1,693 | 2,228 | 0 | 0 |
| Denmark | 4,611 | 4,285 | 3,875 | 3,757 | 3,584 | 3,563 | 3,792 | 0 | 0 |
| Germany (including former GDR from 1991) | 19,244 | 20,367 | 20,909 | 22,032 | 23,978 | 26,820 | 29,244 | 0 | 0 |
| Estonia | 0 | 0 | 0 | 1,026 | 1,190 | 1,244 | 1,292 | 0 | 0 |
| Ireland | 1,010 | 878 | 946 | 1,066 | 1,208 | 1,334 | 1,410 | 0 | 0 |
| Greece | 6,299 | 6,642 | 9,885 | 16,399 | 24,654 | 24,729 | 24,860 | 0 | 0 |
| Spain | 17,751 | 18,505 | 17,688 | 16,790 | 18,318 | 20,031 | 23,253 | 27,627 | 27,627 |
| France | 16,670 | 16,327 | 16,082 | 16,566 | 0 | 18,561 | 20,877 | 25,203 | 25,203 |
| Italy | 55,902 | 48,353 | 41,357 | 49,469 | 51,065 | 50,267 | 49,654 | 0 | 0 |
| Latvia | 0 | 556 | 1,050 | 2,883 | 4,105 | 4,120 | 4,218 | 0 | 0 |
| Lithuania | 0 | 718 | 1,202 | 1,817 | 2,358 | 2,861 | 2,812 | 0 | 0 |
| Luxembourg | 84 | 89 | 104 | 110 | 0 | 119 | 0 | 0 | 0 |
| Hungary | 0 | 1,495 | 1,898 | 0 | 0 | 2,020 | 1,994 | 0 | 0 |
| Malta | 0 | 0 | 1 | 7 | 11 | 0 | 0 | 0 | 0 |
| Netherlands | 2,388 | 2,299 | 2,216 | 2,234 | 2,316 | 2,417 | 2,616 | 0 | 0 |
| Austria | 0 | 20,527 | 21,235 | 21,455 | 0 | 0 | 0 | 0 | 0 |
| Poland | 0 | 0 | 0 | 0 | 0 | 0 | 15,040 | 0 | 0 |
| Portugal | 1,145 | 1,226 | 1,461 | 1,660 | 0 | 0 | 0 | 0 | 0 |
| Romania | 0 | 0 | 0 | 0 | 3,409 | 3,273 | 2,901 | 0 | 0 |
| Slovenia | 0 | 1,434 | 1,615 | 1,758 | 1,992 | 2,063 | 2,142 | 0 | 0 |
| Slovakia | 93 | 100 | 127 | 210 | 298 | 338 | 418 | 0 | 0 |
| Finland | 5,586 | 5,471 | 5,324 | 4,646 | 4,443 | 4,402 | 4,343 | 0 | 0 |
| Sweden | 4,456 | 4,294 | 5,406 | 3,456 | 6,230 | 3,358 | 4,686 | 0 | 0 |
| United Kingdom | 5,929 | 5,954 | 5,947 | 6,356 | 6,889 | 7,631 | 7,896 | 0 | 0 |
| Norway | 2,599 | 2,747 | 2,875 | 2,825 | 2,796 | 3,082 | 3,359 | 0 | 0 |