

Country study Croatia

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COUNTRY STUDY CROATIA

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GENERAL CHARACTERISTICS

The Republic of Croatia is situated at the crossroads connecting Central Europe to the Mediterranean. Total surface area of Croatia is 87.661 km² from which 56.594 km² is continental. From whole continental area 42% are forests and forest woodlands which make Croatia one of the most forested countries in Europe. Croatia is country rich in natural resources as an unpolluted fertile land, good climatic conditions and plenty of water resources. She is characterized by a natural and climatic diversity which enabled a diversified agricultural production ranging from arable and industrial crops to vineyards and from continental to Mediterranean fruits and vegetables.

The territory of Croatia is divided into three major natural and geographical areas:

1. *Pannonian and Peripannonian area* which is consisting of valleys and hills in the north-east Croatia where arable farming and cattle breeding are important activities.
2. *High-lands area* which dividing Pannonian from coastal area, presenting huge possibilities for organic agricultural production and winter tourism.
3. *Adriatic coast area* which covering narrow coastal belt and more than 1.000 islands. Its mild climate enables production of Mediterranean crops.

In Croatia live 4,5 million people which GD is 6.500 \$ per capita. Croatia is a candidate for the membership of EU and she is in the process of negotiations for entering to EU.

AGRICULTURE IN NATIONAL ECONOMY: SOCIAL AND STRUCTURAL ASPECTS

Croatian agriculture production is based mostly on small family farms which average size is around 2,4 ha of farmland area in use consisting of several separated parcels. The small farms owned more than 80% of land and livestock. Croatia has almost 450.000 small farms. One third of Croatian population lives in rural area. In total population 5,5% are agricultural population. Living age of agricultural population is a very high. Average farmland per capita in Croatia is 0,7 ha.

Agriculture, forestry, fishery and hunting in GDP share 6,5%, and together with food industry about 10%. In the export and import agricultural and food production sectors share 10%.

LAND USE AND PRODUCTION

From the total agricultural land of 3.137.000 ha 47% or 1.460.000 ha are arable. On rest of them are perennial. Pasture land covered 1.157.000 ha, meadows 397.000 ha, orchards 68.000 ha and vineyards 57.000 ha.

At the arable land the most spread are cereals as corn and wheat which Croatia produces about 3 million tons per year. In that agricultural product Croatia has self-sufficiency, but in most others except sugar, vine, eggs and poultry Croatia is not self-sufficient.

Yearly Croatia produce 185.000 t of oil crops, 920.000 t of vegetable from which more of half quantity is potato and about 145.000 t of fruits.

Table 1. Arable land by type of cultivation 2000 2004 (in hectares)

Crop	2000	2001	2002	2003	2004
Cereals	699.804	723.964	717.818	692.478	707.795
Potatoes	65.263	65.662	64.648	63.098	54.883
Oil seeds	86.919	78.075	89.065	95.006	80.550
Tobacco	5.736	5.504	5.489	5.781	5.349
Sugar beets	22.015	23.821	25.229	27.562	26.560
Forages crops	120.731	121.076	119.503	120.256	114.646
Aromatic and fiber plants	2.197	2.633	2.622	2.565	2.457
Vegetables	68.908	70.476	72.227	73.444	69.177
Total	1.071.573	1.091.211	1.096.001	1.080.190	1.081.464

Livestock is so important Croatian agricultural production which contributes in the total value of agricultural production with 44%. Croatian yearly production of meat is a little more than 200.000 t and milk about 670 million liters.

Table 2. Livestock production 2001 2005 (in 000)

Animal	2001	2002	2003	2004	2005
Cattle	438	417	444	466	471
Pigs	1.234	1.286	1.347	1.489	1.205
Horses	10	8	9	10	9
Sheep	539	580	587	721	796
Poultry	11.747	11.665	11.778	11.185	10.640
Bee hives	98	107	111	119	167

However Croatia has good condition for production of most of agricultural product she is a net importer of it. Value of Croatian foreign trade grows as results of trade liberalizations with the many countries. The import of agricultural products is double times higher than export and yearly negative balance is about 1 billion \$. Croatian the most important export market for agricultural products are the EU countries with share of 42% of total values and the former Yugoslavian countries with same values. The most of agricultural products, 70% of total value Croatia imports from EU countries. Croatian the most important export agricultural products are cigarettes, sugar and fish.

Agricultural politics and strategies for its development

The strategy for Croatian agricultural politics is it a developing a sustainable and competitive agriculture with high level of food quality and safety.

Sustainable development of agriculture take a care of the protection of natural resources and the preservation of endangered areas contributing to the land shaping and sustainable management of natural resources as a developing farmlands and rural area.

In the aim of that politics Croatia reformed subsidies system in agriculture by distinguishing commercial or potentially commercial farms which produced for the market from not commercial which have weak potential for profitable production and where major part of their production is consumed on the family farm. The main goal of this reform is entrainment of non commercial farms from agricultural production and collimation of their unused resources, especially agricultural land into commercial farms.

Non commercial family farm can use income support after they cease work in agriculture.

Commercial farm can use the support for stimulation of profitable production of commercial agricultural product as a field crops, perennial plantation as for livestock farming and products. Commercial farms can use so stimulations for capital investment in agriculture for increasing productivity and competitiveness enlargement.

In the aim for rural development, primary for preservation and progress of rural areas, their values and traditional attributes support can use both non commercial and commercial family farms and wide ranges of other users.

Implementation of the support policy is closely related to the Register of agricultural farms which is a unique database of agricultural farms and of administrative system for payment management in agriculture.

Considering the advantages, among others the climate, unpolluted soil, qualified personnel, important tourism resources and the strong potentials of an environment friendly production Croatia has set the following goals in agricultural policy:

- Ensuring the food safety of the population to the greatest extent possible by competitive domestic products.
- To promote efficient production and marketing in order to strengthen the competitiveness of producers on the markets world-wide.
- To enable appropriate living standard of the agricultural population and to contribute to the stability of agricultural income.
- To provide consumer access to a suitable and constant supply of food in accordance with consumer demands, especially price, food quality and food safety.
- Conserving natural resources through to promotion of sustainable agriculture.
- Preserving and advancing village and rural values.

Strategic development projects have been directed on enhancing competitiveness of domestic production by reconstructing agricultural production, especially high-income productions which are in deficit (fruits, vegetables, grapes, meat, milk and flowers. The main priorities are raising of perennial plantation, development of livestock production and irrigation.

Actually there are several operative programs for agricultural development active in Croatia. In the period of 2004 - 2007 from these programs the goal is increasing new plantation of 13.000 ha of vineyards, 15.000 ha of orchards and 5.500 ha of olive trees.

Operative program for livestock production is planned for enlargement of the meat, milk and dairy production. The plan is to set 1.200 new milk farms in average capacity of 40 cows, 230 new farms with cow-calf production system with an average of 60 cows, and adaptation of present 6.000 farms with average size of 15 cows.

Irrigation project is one of the priorities because in Croatia is less than 1% of arable land under irrigations. Irrigation project offers a plan to increase irrigated area up to 30.000 ha.

BASIC INSTITUTIONS PROVIDING TRAINING IN AGRICULTURE AND RURAL DEVELOPMENT

For the training in agriculture in Croatia is responsible Croatian Agricultural Extension Service. Management of Extension Service is in Zagreb, Fra Andrije Kacica Miosica 9/III 1000 Zagreb (e-mail: hzpss@hzpss.hr, www.hzpss.hr). In each of county there are several agronomists helping the farmers in their work.

In Croatia there are two agricultural faculties. Faculty of Agriculture, University of Zagreb Svetosimunska 25, 10000 Zagreb (e-mail: dekanat@agr.hr www.agr.hr) and Faculty of Agriculture, University of Osijek, Trg Sv. Trojstva 3, 31000 Osijek (office@agros.hr <http://suncokret.pfos.hr>) organizing graduate and post graduate study of all area of agricultural sciences.

The oldest Croatian agricultural educational establishment is College of Agriculturae at Krizevci, Mislava Demerca 1, 48260 Krizevci (e-mail: vguk@vguk.hr , www.vguk.hr).

There are so several high schools for education of agricultural technicians.

HISTORY AND DEVELOPMENT OF ORGANIC AGRICULTURE

Organic farming in Croatia hasn't a long tradition. During the eighties of last century some small farms started produce organically. Some of them produced according to the rules of IFOAM because there weren't national standards at that time. Production was without certification, and just few producers use foreign certification bodies for certification. Market for organic agricultural products at that time wasn't developed and they produce mostly for own use and rare for known customers or for export.

In 1994 BIOS, first Croatian association of organic producers was established. How there weren't national law and regulations for organic production they wrote own regulations for organic production. Their regulations were harmonized with IFOAM standards. Few years later BIOS became a member of IFOAM. BIOS worked as certification body too and for its members, producing organically they issued certification and logo "Bios" for the agricultural products produced by their rules and "Bios Croatia" for the products which farmers produced during transition period.

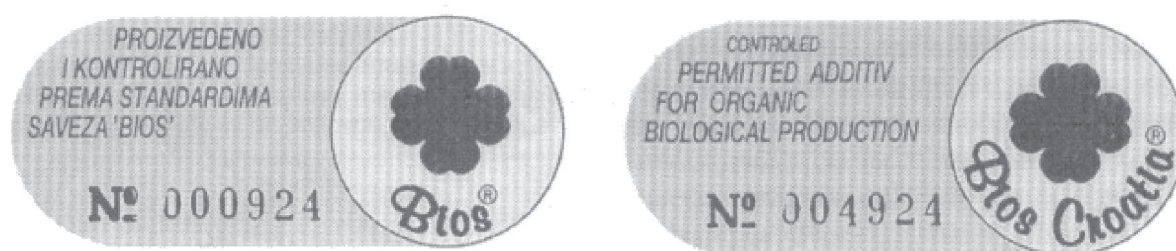


Fig. 1. The logo for organic production according to the Bios association standards

BIOS was very active in promotion of organic agriculture in Croatia organizing meetings and publishing leaflets and brochures.

At the same time the first Croatian book about organic agriculture was published. The author was Darko Znaor, internationally known young Croatian agronomist.

From 1995 Organic Agriculture as a subject of educational program was included in regular lecture at Agricultural Faculty University of Zagreb.

During the nineties in Croatia there was war causing migration of people and devastation of a big part of rural area. During the war development of conventional agriculture was slowed and development of organic agriculture too, but public awareness about organic farming was increased. In increasing of public awareness about organic agriculture important activity was activity of many of non government organizations working in promotion of organic production in Croatia.

Nevertheless organic agriculture in Croatia is considered as an alternative method. The reason probably is because many of organic producers originally aren't farmers with experience in conventional agricultural production than other professionals some times very far from agriculture.

The real development of organic agriculture in Croatia started five years ago when Law about Organic Agriculture and Regulations were issued. In 2002 first farms were registered for organic production, and a year later their first organic production was certificated.

DEVELOPMENT OF ORGANIC AGRICULTURE IN FIGURES

Really data about organic agriculture in Croatia are available after the Law and Regulations about organic agriculture were issued. First three years when official registration of organic production in Croatia is exist sixties farms yearly were registered for organic production, while in 2005 that number was 90.

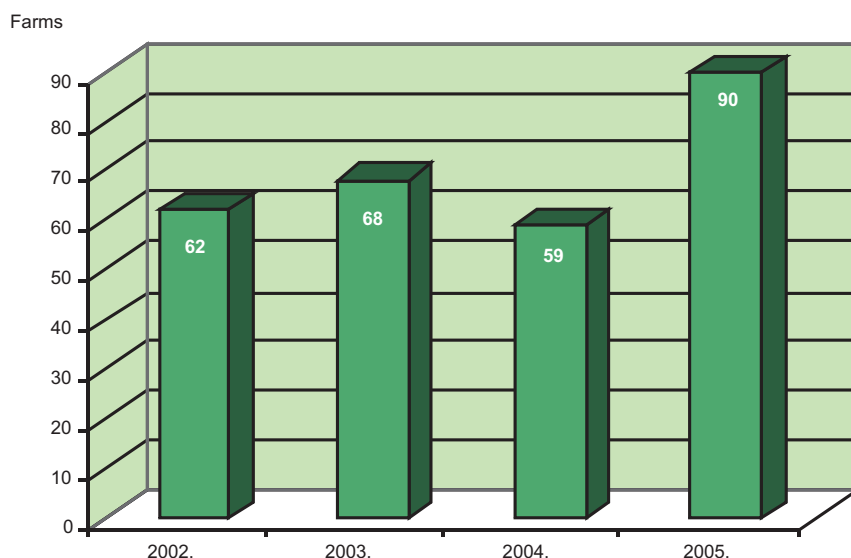


Fig. 2. Number of registered farms for organic production in Croatia

During the same time just few farms stopped their activities with organic production ore for another reasons was deleted from registration list. Les than 300 active organic farms in comparison with total number of 450.000 farms existing in Croatia mean that just 0,06% of farm produce organically, but increasing is evident.

By increasing of number of registered farm for organic production there are evident increasing of land acreage certificated for organic production. While in 2002 just 55 hectares of arable land was certificated for organic agricultural production that acreage in 2005 was 3.200 ha.

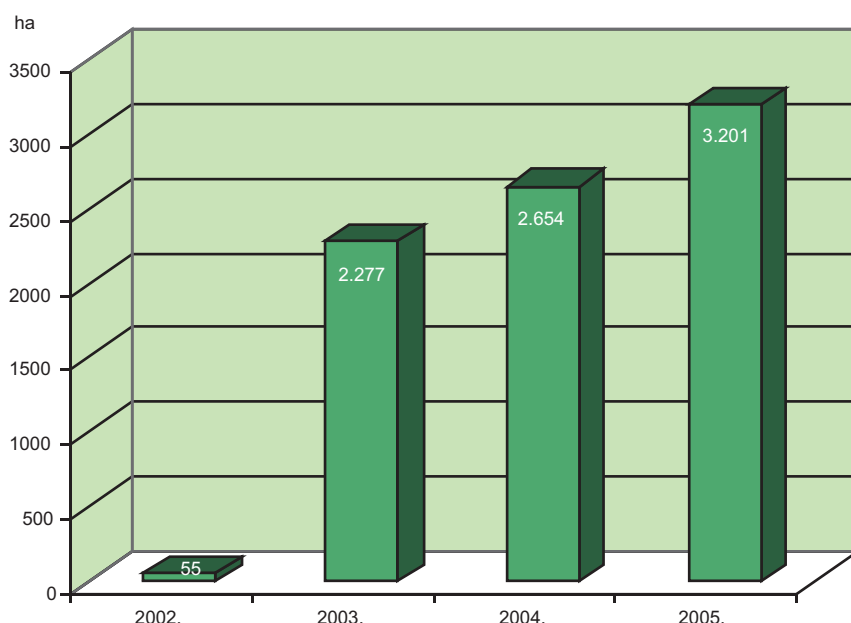


Fig. 3. Land under organic production in Croatia

From the total Croatian agricultural area of 3,14 million ha, 3.200 ha certificated for organic production is just about 0,1%.

In the structure of land use for organic production prevalent are field crops with more than two third of total certificated land and pastures with meadows on the one forth of land. Important are vegetable and fruit production.

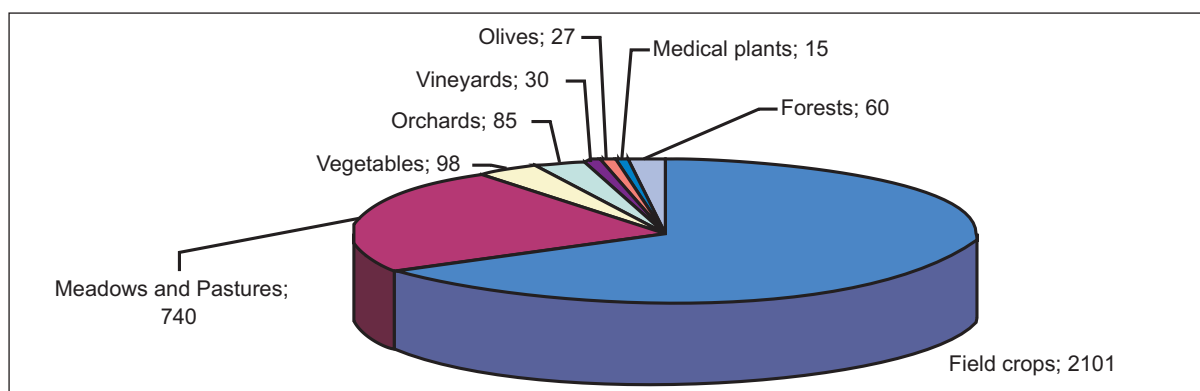


Fig. 4. Structure of land use for organic production in Croatia 2005 (in hectares)

Not much better situation is it on livestock organic production too. Less than 0,3% of total domestic animal production is organic. Little better situation is in sheep production and beekeeping than in other livestock production.

Table 3. Livestock production 2005 in Croatia

Animal	Conventional	Organic
Cattle	438.000	315
Pigs	1.234.000	181
Horses	10.000	42
Sheep	539.000	2.150
Poultry	11.747.000	5.736
Bee hives	98.000	671

During 2002 just 2 organic products got confirmation for using logo «Eco Croatia» as a national logo for organic products, in 2003 new 29 products got the right for using logo in 2004 new 19 and in 2005 confirmation got 113 agricultural products.



Fig. 4. National logo for labelling organic products

ORGANIC AGRICULTURE ORGANIZATIONS

In Croatia there are active 30 associations for organic agriculture and 15 cooperatives. Associations are non government organizations whose member except producers is various professions. Associations work mostly on promotion of health life, sustainable development, environment protection and member educations. Some of them organizing exhibitions of its member organic products or traditional rural products, helping members in finding market for its products.

List and addresses of organic agriculture associations registered in Croatia

1. "EKO-DALMACIJA"
PRILAZ TVORNICI 39
22 000 ŠIBENIK
2. UDRUGA MAJKE ZA PRIRODNI ZAKON
NOVAKOVA 10
10 000 ZAGREB
3. "EKO-ZADAR"
TRG P. ZORANIĆ 1
23 000 ZADAR
4. UDRUGA "AGROTURIST"
KAŠTELIR 113
52 464 KAŠTELIR
5. UDRUGA ZA ORGANSKO-BIOLOŠKU
PROIZVODNJU «BIOPA»
REISNEROVA 64
31 000 OSIJEK
6. EKOLOŠKA UDRUGA LIČKO-SENJSKE ŽUPANIJE
«KAP ŽIVOTA»
A. STARČEVIĆA bb
53 000 GOSPIĆ
7. UDRUGA «ZELENA ISTRA»
SPLITSKA 2
52 100 PULA
8. UDRUGA EKO-LIBURNIA
JELAČIČEV TRG 1/3
51 000 RIJEKA
9. EKOLOŠKA ORGANIZACIJA «LIPA» GORNJI
MIHALJEVEC
GORNJI MIHALJEVEC 69
40 306 MACINEC
10. HRVATSKA UDRUGA ZA INTEGRIRANU
PROIZVODNJU VOĆA
ULICA GRADA VUKOVARA 78
10 000 ZAGREB
11. EKOLOŠKA UDRUGA "LIJEPA NAŠA KAŠTELA"
PUT SV. LOVRE BB
21 215 KAŠTEL LUKŠIĆ
12. "BIOMAR"
UDRUGA ZA ORGANSKO-BIOLOŠKU
POLJOPRIVREDU
BRODSKO-POSAVSKE ŽUPANIJE
CANKAREVA 76
35 000 SLAVONSKI BROD
13. "Z-EKO" UDRUGA ZA RAZVITAK EKOLOŠKE
POLJOPRIVREDE,
ZAŠTITE OKOLIŠA I RURALNOG
PROSTORA
ULICA GRADA VUKOVARA 78
10 000 ZAGREB
14. "ŽIVA ZEMLJA"
ULICA GRADA VUKOVARA 238
10 000 ZAGREB
15. "BIOS"
SAVEZ ZA ORGANSKO-BIOLOŠKO
GOSPODARSTVO
ZAŠTITU OKOLIŠA I UNAPREĐENJE ZDRAVLJA
REPUBLIKE HRVATSKE
DONJE SVETICE 40
10 000 ZAGREB
16. "ZRNO"
HABIJANOVAC 45
10 343 NOVA KAPELA
17. "EKOP"
STJEPANA KUKECA 21
48 000 KOPRIVNICA
18. "POVRATAK PRIRODI"
DOMAGOJEVA 6
10 000 ZAGREB
19. "SANUS"
BREZOVIČKOG ODREDA 5A
44 000 SISAK
20. "PLANETA"
DRAVSKA 9, STRAHONINEC
40 000 ČAKOVEC
21. "BILO BIO"
4. STUDENI 1991. br. 5
43 290 GRUBIŠNO POLJE
22. "BIO ISTRA"
O.M.TITA 6
52 440 POREČ
23. "DUGA"
T.UJEVIĆA 39
40 000 ČAKOVEC
24. "EKO-CENTAR CAPUT INSULAE"
BELI 4
51 559 BELI
25. "EKO SMILČIĆ"
SMILČIĆ
23 420 BENKOVAC
26. UDRUGA PROMICATELJA I PROIZVOĐAČA
PRIRODNIH PROIZVODA "PRIMED"
BREZOVIČKA CESTA 12
10 000 ZAGREB
27. "EKOP ISTRA"
KOPARSKA 58
52 100 PULA
28. "EKO KULTURA"
Dr. A.STARČEVIĆA 8
43 000 BJELOVAR
29. EVROPSKI DOM VUKOVAR
GAJEVA 12
32 000 VUKOVAR
30. "ECOLOGICA"
VLAŠKA 64
10 000 ZAGREB

Organic cooperatives are societies of several producers producing organically or just small trading company organizing production and trading of organic products.

List and addresses of organic agriculture cooperatives registered in Croatia

- | | |
|---|---|
| 1. PRVA EKOLOŠKA ZADRUGA
GUDOVAC bb
43 000 BJELOVAR | 9. HERBA SLAVONICA,
POLJOPRIVREDNA ZADRUGA ZA
EKOLOŠKU PROIZVODNJU HRANE
TRNAVA 13
35 429 TRNAVA |
| 2. POLJOPRIVREDNA ZADRUGA LOVINAC
CENTAR 30
53 244 LOVINAC | 10. PČELARSKO POLJOPRIVREDNA
ZADRUGA EKO-MED
BATINJACI 186
43 500 BATINJACI |
| 3. SPUŽVARSKO-RIBARSKA ZADRUGA
OBALA II/20
22 231 KRAPANJ | 11. POLJOPRIVREDNA ZADRUGA Z.E.M.-
EKO
BAR
BARILOVIĆ 37
47 252 BARILOVIĆ |
| 4. POLJOPRIVREDNA ZADRUGA HVAR
DOLAC bb
21 450 HVAR | 12. POLJOPRIVREDNA ZADRUGA EKO-
BIOMASA
VELIKI BILAČ 39
34 350 ČAGLIN |
| 5. POLJOPRIVREDNA ZADRUGA MASLINA
TRG BRATSKI DVOR
23 272 KALI | 13. EKOLOŠKA POLJOPRIVREDNA
ZADRUGA
ZDRAV ŽIVOT
STARA SUBOCKA 128
44 330 NOVSKA |
| 6. RIBARSKA ZADRUGA KOMIŽA
GORNJI PUT 24
21 485 KOMIŽA | 14. GOSPOJA - VRBNIK
FRANKOPANSKA 1
51 516 VRBNIK |
| 7. POLJOPRIVREDNO-STOČARSKO
VOČARSKA ZADRUGA SAMOBOR
ŠMIDHENOVA 3
10 430 SAMOBOR | 15. SREDIŠNJI ODBOR UČENIČKOG
ZADRUGARSTVA
DALMATINSKA 12
P.P. 149
10 000 ZAGREB |
| 8. EKOLOŠKO POLJOPRIVREDNA
ZADRUGA
ZLATNO POLJE
NOVA CESTA 4
10 000 ZAGREB | |

STANDARDS AND CERTIFICATIONS, STATE REGULATIONS

Organic agricultural production in Croatia is regulated by Law of production of organic agricultural products and foodstuffs issued 2001 (Zakon o ekološkoj proizvodnji poljoprivrednih i prehrambenih proizvoda N.N. 12/01). The law is conciliated with IFOAM standards and in many parts with EU regulation 2092/91. Law of production of organic agricultural products and foodstuffs are supported by several Regulations:

- Regulation of organic plant and plant foodstuffs production (Pravilnik o ekološkoj proizvodnji u uzgoju bilja i u proizvodnji biljnih proizvoda N.N. 91/01)
- Regulation of system evaluation for comp ability in organic production (Pravilnik o sustavu ocjenjivanja sukladnosti u ekološkoj proizvodnji N.N. 91/01)
- Regulation of procedure and condition for getting the logo for organic product (Pravilnik o postupku i uvjetima stjecanja znaka ekološkog proizvoda N.N. 13/02)
- Regulation of processing in organic production (Pravilnik o preradi u ekološkoj proizvodnji N.N. 13/02)
- Regulation of organic animal husbandry (Pravilnik o ekološkoj proizvodnji životinjskih proizvoda N.N. 13/02)

- Regulation of organic product declaration (Pravilnik o deklaraciji ekoloških proizvoda N.N. 13/02)
- Regulation of conditions and mode for registration in list of organic agricultural products and foodstuffs producers. (Pravilnik o uvjetima i načinu upisa u upisnike ekološke proizvodnje poljoprivrednih i prehrambenih proizvoda N.N. 13/02)
- Regulation of inspection in organic production (Pravilnik o stručnom nadzoru u ekološkoj proizvodnji N.N. 13/02)
- Regulation of organic fibre production (Pravilnik o ekološkoj proizvodnji u preradi vlakana N.N. 81/02)
- Register of authorized laboratory for control in organic production (Popis ovlaštenih laboratorija N.N. 81/02)
- Register of agencies for accreditation proces in organic production (Popis pravnih osoba za provedbu postupka potvrđivanja nad ekološkom proizvodnjom N.N. 81/02)
- Register of certificatin agencies in organic production (Popis nadzornih stanica za obavljanje stručnog nadzora nad ekološkom proizvodnjom N.N. 81/02)

In the mean time there some changes in Croatian legislative in organic agricultural production.

The new Regulation of declaration and labeling organic products (Pravilnik o deklaraciji i označavanju ekoloskih proizvoda NN 10/07) replace the former Regulation of procedure and condition for getting the logo for organic product (Pravilnik o postupku i uvjetima stjecanja znaka ekoloskog proizvoda N.N. 13/02) and Regulation of organic product declaration (Pravilnik o deklaraciji ekoloskih proizvoda N.N. 13/02).

According the new regulation there are changed the logo of Croatian organic product which is now as following:



Fig.5. The new national logo for labelling organic products

There are some changes in Regulation of organic plant and plant foodstuffs production (Pravilnik o ekoloskoj proizvodnji u uzgoju bilja i u proizvodnji biljnih proizvoda N.N. 91/01) and Regulation of inspection in organic production (Pravilnik o strucnom nadzoru u ekoloskoj proizvodnji N.N. 13/02) too published in NN 10/07 as a harmonization with EU legislations.

In Croatia there are registered two agencies for accreditation process in organic production, six certification agencies and four laboratories authorized for control in organic production.

List and address of agencies for accreditation process in organic production in Croatia

1. BIOPA“ Udruga za organsko-biološku proizvodnju, Reisnerova 64, 31000 Osijek
2. AGRIBIOCERT - zadruga za obavljanje stručnog nadzora i ugovornu kontrolu robe, Veli dvor 11, 51513 Omišalj

List and address of certification agencies for in organic production in Croatia

1. BIOINSPEKT“ d.o.o. za nadzor u ekološkoj proizvodnji, Đakovština 2, 31000 Osijek
2. PRVA EKOLOŠKA ZADRUGA, Kuraltova 8, 10 000 Zagreb
3. HRVATSKE ŠUME d.o.o., Ljudevita Farkaša Vukotinovića 2, 10000 Zagreb
4. AGRIBIOCERT zadruga za obavljanje stručnog nadzora i ugovornu kontrolu robe, Veli dvor 11, 51513 Omišalj
5. ZAVOD ZA ISPITIVANJE KVALITETE ROBE d.o.o., Ljudevita Gaja 17/III, 10000 Zagreb
6. BIOTECHNICON PODUZETNIČKI CENTAR d.o.o., Hrvatskih iseljenika 30, 21000 Split

List and address of laboratories authorized for control in organic production in Croatia

1. CROATIAKONTROLA Preradovićeveva 31a, 10000 Zagreb
2. ZAVOD ZA JAVNO ZDRAVSTVO GRADA ZAGREBA Mirogojska 16, 10000 Zagreb
3. AGRONOMSKI FAKULTET Svetošimunska cesta 25, Zagreb
4. ŠUMARSKI INSTITUT, Jastrebarsko Cvjetno naselje 41, Jastrebarsko

STATE SUPPORT, POLICY INITIATIVES

In the national strategy for agricultural development, sustainable development in agriculture is the priority. In that strategy important place has a development of organic agriculture. The national goal is until 2010 in Croatia to have 10% of agricultural land in function for organic production. For that purpose government installed subsidies for organic production which are approximately double then for conventional agricultural production. For field crops, vineyards and orchards subsidies are 3.000 kunas (Croatian national currencies) per hectare what is about 400 €/ha. For organic production there is no limitation for subsidies per county like in conventional production, but in 2005 subsidies was paid for 1.437 ha. For milk cow subsidies is 150 €, sheep and goats in organic production 35 € and in poultry 4 € per animal. For the milk in organic production subsidies is 0,12 €/l. Some counties for organic producers pay the cost of certifications.

The Ministry of Agriculture, as Croatian agricultural policy maker issued several measures for organic agriculture development. One is stimulation of scientific work on the area of organic agriculture, followed is employing at least one advisor for organic agriculture and establish one education organic farm in each county. In measures is indicated needs for several kinds of educations trainings and improving distribution channels for organic products.

TRAINING (INSTITUTIONS PROVIDING TRAINING IN ORGANIC FARMING, LEVEL OF COURSES, TYPE OF COURSES, CURRICULA)

Official training institution for organic farming as for all training in agriculture in Croatia is Croatian extension service. He has one coordinator for organic farming and 10 advisers in each of 10 for organic agriculture most important counties. They organizing training for the farmers as a one or few days seminars, farmer field schools or visiting some advanced organic farms in country and abroad. They published some leaflets for organic farmers too.



Fig. 3.5. Leaflets for organic farmers published by Croatian extension service

In education for organic farming for farmers and advisors are active domestic and foreign association for organic agriculture (Ecologica, Avalon, Eko-Zadar, Biotechnicon, Biocroatia, Biopa) as a some international organization like FAO.

Ministry of Agriculture together with FAO consultants through the project TOP/CRO 2092 Strengthening of production and labelling the products from sustainable agricultural production organized 15 trainings for advisers and advanced organic farmers al around Croatia too.

ADVISORY SERVICES

Advisory services for organic agricultural production in Croatia was established in Croatian extension service in 2001. Now the service has one coordinator for organic farming and in 10 for organic agriculture most important counties one advisor. Advisors are active in helping the candidate for organic farming in understanding the law and regulations, preparing necessary documents for registration and certification of organic products. They help farmers in solving some problems during production too. As advisers there are active some associations for organic agricultural production having sometimes employers helping his members.

RESEARCH (OVERVIEW OF MAIN INSTITUTIONS CARRYING OUT RESEARCH, LIST OF MAIN PUBLICATIONS)

In Croatia there are two agricultural faculties carrying out researches on the field of agronomy:

Faculty of Agriculture, University in Zagreb
Svetošimunska 25
10000 Zagreb
www.agr.hr

and

Faculty of Agriculture, University in Osijek
Trg Sv. Trojstva 3
31000 Osijek
www.pfos.hr

They have many research project financed from Ministry of Science and from Ministry of Agriculture and some of them are connected with organic agriculture.

Some research activities have agricultural institutes:

Agricultural Institute Osijek
Južno predgrađe 17
31000 Osijek
www.poljinos.hr

Institute for Adriatic Crops and Krast Reclamation Split
Put Duilova 11
21000 Split
www.krs.hr

Institute for Agriculture and Tourism Poreč
C. Hugues 8
52440 Poreč
www.iptpo.hr

During last five years in Croatia were published many works about organic agriculture. Some of them are:

Ban, D., Šerović Lončar, Svjetlana, Oplanić, 2004.: Ekološka proizvodnja povrća u funkciji obogaćenja turističke ponude. *Zbornik priopćenja II. savjetovanja HAED-a s međunarodnim sudjelovanjem* Hrvatsko agroekonomsko društvo, Zagreb

- Igrc Barčić, Jasminka; Maceljki, M., 2001: Ekološki prihvatljiva zaštita bilja od štetnika. Zrinski, Čakovec
- Karoglan Kontić Jasminka, Maletić, E., Mirošević, N., 2003.: Usporedba ekološkog i konvencionalnog uzgoja u vinogradarstvu- prva iskustva u uvjetima hrvatskih vinogradarskih područja 13. *SABATINA, Manifestacija vinogradara i vinara Jadrana, Zbornik radova, Zadružni savez Dalmacije i Zadrugar, Split.*
- Karoglan Kontić, J.; Maletić, E.; Trojanović, G., 2001: Possibilities of organic viticulture production in Međimurje wine growing region In: Zbornik II makedonskog simpozija viogradarstva i vinarstva - Skopje, Makedonija: 71-78.
- Karoglan Kontić, Jasminka; Maletić, E., 1996.:Ekološki prihvatljiva proizvodnja u vinogradarstvu *Zbornik radova drugog međunarodnog simpozija iz vinogradarstva i vinarstva.* Zagreb.
- Kisić, I., 2004. Ekološka poljoprivreda u Republici Hrvatskoj. *Gazophylacium* 3-4; 119-124.
- Kisić, I., 2004.: Ekološka poljoprivreda - stanje i perspektive u RH . *XXXIX Znanstveni skup hrvatskih agronoma* A ronomski fakultet Zagreb.
- Kisić, I., Bašić, F., Mesić, M. 2003.:Pogodnost tala za eko-poljoprivredu: primjer općine Glina . *Hrvatski put u ekološku poljoprivredu.*
- Kušen, E.,2002: Međusobna ovisnost ekološke poljoprivrede i turizma. *Turizam.* 50, 1; 79-89.
- Lešić, Ružica, Ban, D. 2003. Organsko-biološka proizvodnja povrća za tržište. *Zbornik radova "Hrvatski put u ekološku poljoprivredu , Zagreb*
- Maceljki, M., 2003.:Ekološka poljoprivredna proizvodnja. *Zbornik "Forumi o održivom razvoju".* Zagreb.
- Romić, Marija., 2003.:Važnost kemijskih analiza za održavanje plodnosti tala u ekološkoj proizvodnji. *Zbornik radova Manifestacije vinogradara i vinara Jadrana 13. Sabatina* Zadružni savez Dalmacije "Zadrugar" Split.
- Šamota, D., Brkić, Renata., 2002: Iskustva ekološke proizvodnje povrća u Slavoniji i Baranji. *Glasilo biljne zaštite.* 1.
- Tolušić, Z. Stjepanović, M., Kavgić, P. 2002. Mogućnosti proizvodnje EKO hrane u Slavoniji i Baranji kao novi pravac turističke ponude. *Kontinentalni gospodarski resursi u funkciji razvitka turizma R.Hrvatske, Osijek.*
- Željka Šiljković, Karmen Sinkovic, Željka Velaga-Gudelj, 2003.:Organska poljoprivreda u Hrvatskoj. *III kongres geografa Hrvatske, Zagreb.*

CHALLENGES AND OUTLOOK

Although a good natural conditions for development of organic agriculture in Croatia, organic farming is still in the beginning. Just 270 registered organic farms with 3.200 ha certificated for organic production is it a small for the possibilities which Croatia has. During the last five years how the Law about organic agriculture exist some positive movement is evident. The problem like in conventional agriculture is a bad organization of the market. Another problem is producer knowledge about organic production while the many organic growers haven't basic education for agricultural production and they are poor in experience with conventional agricultural production.

The challenge is that the Ministry of Agriculture recognized importance of organic farming as a global movement and supporting they development by subsidies, by investing in education of advisers and farmers and by supporting some research projects. However the official strategic plan to reach 10% of agricultural land until 2010 to be organic farmed is unrealistic if it will be 1% it will be good progress. Croatia as a country with good tourism potential has a good opportunity for promoting and selling organic products through tourism. For the future development of organic production it is a necessary to improve market of organic products and educations at three levels; education of producers, education of advisers and education of consumers.

FOREIGN TRADE OF AGRICULTURAL AND ORGANIC PRODUCTS

There are not official data about foreign trade of agricultural organic products in Croatia. According the reports of some organic producers associations some kind of organic products are exported but the quantity isn't significant. As a for another agricultural products Croatia is importer of organic products too. It is a possible to find in big shops and in specialized food shops wide range of foreign organic product. Although there are not official data about import it is surely a several times higher than export. In Croatia is registered 18 companies for import of organic products.

Table 4. List of companies registered for import of organic agricultural products

CANDOR d.o.o.	A. Šenoa 89, 31550 Valpovo
SJEMENARNA d.o.o.	Trg kralja Tomislava 19, 10000 Zagreb
ENCIAN d.o.o.	Gospodarska bb, Donji Stupnik
VIVERA d.o.o.	Ulica kralja Zvonimira bb, 44000 Glina
DM-DROGERIE MARKT d.o.o.	Baštijanov 52/a, 10000 Zagreb
KRESTO d.o.o.	Nikole Tesle 6, 40000 Čakovec
ADVENT d.o.o.	Šijanska cesta 5, 52100 Pula
BIO-PARTNER d.o.o.	Ulica Franje Galovića 26/c, 48000 Karlovac
FRIVA AB -GALEB trgovina i usluge d.o.o.	Kaptol 7, 10000 Zagreb
SMS d.o.o. za proizvodnju prirodne hrane	Kopilica 5, 21000 Split
FER-MI d.o.o. za trgovinu i zastupanje	Medarska 65, 10000 Zagreb
DIV-PROMET d.o.o. Za trgovinu, ugostiteljstvo, putničke agencije i usluge	Antuna Grahovara 10, 10408 Velika Mlaka
BIOVEGA d.o.o.	Ilica 72/1, 10000 Zagreb
JAN SPIDER d.o.o. za proizvodnju, trgovinu i usluge	Petra Preradovića 183, 33405 Pitomača
PRETTI d.o.o.	Rupa 42, 51214 Šapjane
"AWT International" d.o.o.	Slavonska avenija bb, 10000 Zagreb
"PODRAVKA" d.d.	Ante Starčevića 32, 48000 Koprivnica
"EUROVOĆE ZADRUGA"	Stjepana Radića 4, 33515 Orahovica

REFERENCES

- Central Bureau of Statistic (2006). Statistical Yearbook of the Republic of Croatia 2005. Zagreb
 Croatian extension service (2006). Annual Report for 2005. Zagreb
 Čulo, A. (2005). National strategy for development of organic agriculture in Croatia. Zagreb
 Kisić, I. (2004). Ecological agriculture in the Republic of Croatia. Zagreb
 Ministry of Agriculture (2005) Croatian Agriculture at the crossroads. Zagreb
 Ministry of Agriculture (2006). www.mps.hr
 Ševar, M. (2006). Organic agriculture (presentation for advisers). Zagreb