Poland

Agricultural Situation

Organic Farming in Poland

1999

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Report Highlights:
Poland has the opportunity to become a leader in organic farming in Europe. Unfortunately the existence of organic agriculture in Poland is still perceived as curiosity, one of many additional farmers’ activities. Although the market for organic food appears to be growing, there is little trade in these products.
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Summary

Around 500 “organic” farms exist in Poland. There are 187 that are members of the Association of Organic Food Producers (Ekoland) and 217 organic farms that are members of the Polish Association of Organic Agriculture. Organic farms account for 10 thousand hectares, or 0.3 percent of total arable land in Poland. The average area for an organic farm in Poland is 12-15 hectares, however there are farms larger than 100 hectares. By comparison, the average area of a traditional farm in Poland is around 8 hectares.

Organic farms can be found in all areas of Poland, excluding the very polluted coal mining areas in Silesia (Southern Poland). But even in areas conventionally considered polluted such as Katowice, there is one organic farm approved by Ekoland. Most organic farms are located in central Poland. Very few organic farms are located near the eastern border which is widely acknowledged as the most ecologically clean area in Poland.

Production

The majority of organic farms in Poland raise crops with wide variety, including grains, being cultivated organically. Organic animal production also exists in Poland. The most popular ecological products are vegetables (carrots, beets, cucumbers), grain products (bread, flour), dairy products and fruit (mainly strawberries, black and red currant, raspberries and apples). Unfortunately, the supply of ecological products in Poland is not stable in part reflecting seasonal production.

There are around 130 - 150 shops offering organic food: grain products, vegetable and fruit products, fresh vegetables and sometimes dairy products. These shops do not sell meat because of sanitary regulations. Meat and meat products could be sold only in vacuum packaging. Vacuum packaging lines are too expensive for farmers, while meat processing factories, which can offer packaging services, request quantities which cannot be delivered in a single shipment by individual farmers.

Polish people are becoming more aware of food quality concerns and the health aspects of food ingredients. However, the most important determinants used by Poles in assessing the quality/healthiness of food remain the expiration date and price of the product. According to polls, 41 percent of Polish consumers claim to buy ecological food. However, most can not define exactly what “ecological” means. Ecological products are bought mainly by city inhabitants with higher education and good income, but also by young people and students which may be the result of ecological education in the schools. The main reason offered for buying ecological products is the health of the buyer and the buyer’s family (94 % of poll respondents).

Environmental protection is less important (66 %) as well as the taste of these products (58 %). Not surprisingly, young mothers of children with nutritional problems are major clients of ecological shops.

Forty-nine percent of respondents reported that ecological food is produced without chemical or artificial ingredients, fertilizers, etc. Only a small percentage think ecological labeling is a marketing ploy. Around 5 percent of respondents have not heard anything about ecological food.

Lack of consumer awareness means few consumers are willing to pay a higher price for organic product than they pay for non-organic product. Organic food products in Poland are priced 10 - 30 percent higher than conventional products. Also, yields on organic products are 20 percent lower because plant protection agents and chemical fertilizers are not used.
Foreign trade

Specialists think there is potential for organic agriculture in Poland based on the interest in other European countries for Polish organic products. The main problem is that production should be on a larger scale with better packing, marketing and extended supply periods. So far, no Polish farmers or producers groups are in position to meet these conditions. Up to now, exports of organic food amount to no more than a few trucks a year of mainly black currants, strawberries, onions, dried vegetables and chicory-grain coffee delivered to the Netherlands and Germany. Few Polish companies export their organic production. ROL-ECO Ltd. is one of the few Polish exporters of organic food products. During last three years ROL-ECO exported over 400 tons of frozen fruit and vegetables to Germany and the Netherlands.

Imports of ecological food are also not very substantial. They are quite popular although prices are generally higher than local organic and non-organic products due to tariffs. There are no differences in import duties on organic and non-organic food products. Many organic products not produced in Poland are imported from the Netherlands and Germany including raisins, nuts, sesame and sunflower seeds, cold pressed olive or sunflower oil, soya or nut butter, maple syrup, malt, instant vegetarian soups, coffee, rice, milk and soya desserts.

Legal status

There are three certification organizations in Poland: Ekoland, Polish Association of Organic Farming (PAOF) and ROL-EKO. Unfortunately Polish certificates are not accepted by the European institutions. Since 1991, a Dutch organization called SKAL has provided a certification of selected farms in Poland at the request of ROL-EKO. This certification is made according to EU criteria for organic certification. PAOF and Ekoland are negotiating cooperation agreements with French and German certification organizations. It is very possible that after 2000, all Polish organic farmers will be in a position to apply for EU organic certification.

The Government of Poland (GOP) is trying to support development of organic agriculture. There are subsidies for the cost of inspections to obtain organic certification. Depending on the farm area, certification subsidies of 100 to 350 Zl (US$ 25 - 75) usually cover about one-third of total certification costs.

In 1999, the GOP is expected to introduce a new subsidy to help finance farms entering into organic production or already producing organic products. This would be a direct annual subsidy of 150-250 zlotys/hectare ($40-60/ha) for organic production.

There are no legal regulations concerning organic food production with the exception of an article regarding labeling of organic products.

A new law on organic agriculture was considered by representatives of different government institutions, NGOs and organizations representing farmers till the end of March 1999. If there are no comments, it will be passed to Parliament for approval. The new law has been prepared according to EU regulations and is expected to help create local regulations and procedures to be used in organic farming, processing and trade.

Useful addresses:
EKOLAND - Przysiek n/Torun, PL-87-134 Zlawies Wielka
tel # (48-56) 678 9239, fax # (48-56) 678 9239, e-mail: ekoland3@infcomp.torun.pl or ekoland2@pol.pl;
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Polish Association of Organic Farming
Contact in Lublin: dr Jerzy Szymona, tel # (48-81) 502 0859 or 445 6641, fax # (48-81) 532 0436

ROL-EKO Ltd., 02-790 Warszawa, ul. Pietrasiewicza 9/2a
Contact: Mr. Andrzej Bednarek, tel # (48-22) 649 1095 or (48) 602 325 444; e-mail: abednarek@roleko.com.pl

SYMBIO Ltd. (Polish-American company)
Contact: Mr. Artur Tyminski, tel # (48-81) 532 1307
Table No. 1 - Certified organic farms in Poland

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EKOLAND</td>
<td>225</td>
<td>235</td>
<td>236</td>
<td>207</td>
<td>187</td>
</tr>
<tr>
<td>SKAL</td>
<td>18</td>
<td>23</td>
<td>35</td>
<td>42</td>
<td>50</td>
</tr>
<tr>
<td>PAOF 1/</td>
<td>27</td>
<td>30</td>
<td>31</td>
<td>43</td>
<td>72</td>
</tr>
<tr>
<td>TOTAL</td>
<td>270</td>
<td>288</td>
<td>302</td>
<td>292</td>
<td>306</td>
</tr>
</tbody>
</table>

1/ PAOF - POLISH ASSOCIATION OF ORGANIC FARMING

2/ Three of the farms have SKAL’s and PAOF’s certificates

SOURCE: EKOLAND, PAOF and ROL-EKO (SKAL representative in Poland)
Annex 1 - ORGANIC AGRICULTURE STANDARDS OF THE EKOLAND ASSOCIATION

Organic agriculture - means a balanced system of crop and animal production on the individual farm using technologically unprocessed organic and mineral substances, that is, without chemical inputs in crop, animal and food production. This serves two objectives:

- protection of the agricultural environment (soil, water and landscape) by creating from the farm an ecological system, capable of biological self-regulation;

- high biological („natural”) quality of agricultural produce, corresponding to quality of food produced by nature without human interference.

A. THE FARM

I. GENERAL REMARKS

On the organic farm, crop and animal production is recommended simultaneously. Livestock density should be 0.5 -1.5 Livestock Units (LSU) per equivalent hectare*. This criteria does not apply to horticulture, and in exceptional cases crop production may also be exempt, provided that a certain area is used for plants to produce a green manure.

Soil classes with equivalent hectares

<table>
<thead>
<tr>
<th>Soil classes</th>
<th>I</th>
<th>II</th>
<th>IIIa</th>
<th>IIIb</th>
<th>IVa</th>
<th>IVb</th>
<th>V</th>
<th>VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalent area (ha)</td>
<td>1,8</td>
<td>1,6</td>
<td>1,4</td>
<td>1,2</td>
<td>1,0</td>
<td>0,8</td>
<td>0,6</td>
<td>0,4</td>
</tr>
</tbody>
</table>

II. FARM LOCATION AND ENVIRONMENT.

- The farm should be located at safe distance from sources of dust, dumps containing metals, and large animal-raising operations producing liquid manure.

- A farm may not be located within the official safety-zone of any industrial plant.

*see note last page

The farm should be at least 100 m from road or highway with heavy traffic (over 500 autos per hour); in any case dense hedges are recommended as a protective barrier to composition and microorganism levels.

- Heavy metals in the soil may not exceed the following limits:

Maximum heavy metal limit in mg per kg of surface soil

<table>
<thead>
<tr>
<th></th>
<th>Pb</th>
<th>Cd</th>
<th>Ni</th>
<th>Cr</th>
<th>Hg</th>
<th>Cu</th>
<th>Zn</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>2</td>
<td>50</td>
<td>100</td>
<td>1.5</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>
III. FARM CONVERSION

Conversion means the change from conventional farming methods to organic agriculture and runs according to the conditions of Certificate /Annex/.

- During conversion all fields should be treated once a year with organic fertilizer originating from the farm.
- The conversion period is two years. If methods used earlier were similar to organic ones, EKOLAND may shorten the conversion period to one year. Newly acquired farm land will normally be subject to the conversion period.

The individual conversion program must include basic fertilizer management, projected crop rotations, and changing previous land uses to those in accord with organic methods, e.g. proper farming of steep terrain or fields bordering on water-ways or reservoirs, construction of hedgerows between fields, etc.

B. SOIL AND CROP PRACTICES

I. FERTILIZER AND FERTILIZATION

- The aim of fertilization is:
  - to build up the biological activity and fertility of the soil
  - to create optimal conditions for plant development

- Most fertilizers used should be farm-produced, though bought-in organic fertilizers as well as mineral supplements are permitted. Supplementary organic fertilizers may constitute up to 30% of total fertilizers used on a given farm (assuming the maximum allowable LSU), provided they do not contain an excess of unwanted substances. The limit of quantity does not apply to horticulture. All purchased fertilizers must be documented. Fertilizers acquired from conventional sources should be thoroughly composted at the organic farm.

- Basic organic farms fertilizers are: compost, farmyard manure, liquid manure in form of urine, dung water (the last two only in the period from April to the end of August), and green manure. In mountain regions application of slurry is permitted under supervision of advisors.

- Supplementary fertilizers are:
  S mineral fertilizers: ground rock such as basalt, betonit, gypsum, magnesium sulphate, dolomite, calcium carbonate, limestone and fertilizer chalk (dredgend, from natural deposits, or marl), borax; potash amendments such as kainit, sulphate of potash-magnesium, sulfate of potash, ground natural phosphates, wood ash;
  S organic fertilizers: blood, bone, horn, feather and fish meals, slaughterhouse byproducts, liquid and soil waste matter produced on the farm, oil seed cake, tree bark and sawdust,
  S mud and silt from natural water bodies;
  S peat up to 20% in mediums for young plants.
• Fertilizers not permitted:
  S synthetic nitrogenous fertilizer, guano, industrial fertilizers (chelate, microelement sprays and other foliar fertilizers, long-acting fertilizers, etc.);
  S slurry;
  S compost from municipal refuse-,
  S uncomposted fecal-matter;
  S any fecal compost in vegetable cultivation;
  S excrement from fur-animal raising operation;
  S medium (soil) from conventional mushroom cultivation;
  S industrial fertilizers: "bio-humus", organic mineral fertilizers including those based on bituminous coal, ashes from electrical generating, steam-boiler and industrial plants.

• Use of fertilizer materials other than those already mentioned requires the written permission of EKOLAND.

II. SOIL PREPARATION

• Organic soil preparation should always aim to preserve and improve fertility.
• General principles to be followed are:
  S superficial turning, deeploosening;
  S reducing the number of producers by aggregating tractor attachments,
  S keeping soil covered with growth as much as possible.

III. CROP ROTATION

• On the organic farm crop rotations has these functions:
  S maintaining optimal humus content and fertility;
  S preventing excessive disease and growth
  S weed control.
Crop rotation must fulfill the following requirements:
- complete rotations should occur at least once in a four-year period,
- legumes should be included in the main season,
- the rotation should include catch crops.

IV. WEED CONTROL

Weed control is achieved by preventive measures as well as direct action.
• Preventive measures
  S suitable rotation (choice and sequence of crops),
  S properly composting plant refuse;
  S choice of appropriate varieties;
  S use of catch crops (winter, stubble and undergrowth crops);
  S cleaning the seed material;
  S preparation of the seedbed;
• mulching (with natural materials or plastic).
• Direct weed control:
V. SELECTION OF VARIETIES

- Preferred in organic agriculture are genetically established varieties showing broad resistance to disease and pests, as well as local, weed resistant types, developed over a long period of cultivation in a given region.
- Varieties created through genetic engineering are prohibited.

VI. SEED AND PLANT MATERIAL

- The concept of organic agriculture implies that seeds should be produced locally.
- Is recommended the treating of seed with: biodynamic preparations and mature compost, extracts, physical measures to speed sprouting such as seed baths, scarification and stratification as well as soaking in potassium permanganate as a phytosanitary measure.
- Synthetic seed dressings and plant treatments are prohibited.

VII. GROWTH REGULATORS

- Natural substances are permitted such as biodynamic preparations, compost and plant extracts, etc.
- Substances similar to plant hormones are prohibited and include: stem shorteners, stimulators of propagation and fertility, parthenocarpic agents, maturation stimulators or slower, sprouting inhibitors for bulbs and tubers, rooting stimulators and others.

VIII. PLANT PROTECTION

- Plant protection in organic agriculture consists of measures which prevent excessive development of diseases and pests. These include:
  - proper care of the landscape;
  - correct crop rotation;
  - increasing biological activity in the soil;
  - strengthening plant characteristics.

Curative measures should be undertaken only when the sudden appearance of pathogens or pests threatens a serious loss of yield.

Limiting Pest Populations

The following substances are permitted:
- viral, bacterial (e.g. Bacillus thuincensis) and fungal preparations;
- pheromones, provided they are not applied directly to plants,
- sterilization of insect males,
- plant preparations such as extract of nettle (Urtica dioica), horsetail (Equisetum arvense), feverfew chrysanthemum (Tanacetum parthenium), neem-tree (Azadirachta indica), quaassia
(Quassia amara), pyrethrum (Pyrethrum cinerariaefolium), derfis (Derris elliptical; 
S emulsion based on paraffin, animal or vegetable oil;
S soft soap
S diatomaceous earth,
S rock dust,
S milk.

Limiting Plant Diseases

S Plant derived preparations are permitted such as horsetail, onion, garlic, horse-radish, etc.
S Copper preparations in form of CuSO4 (up to 0.05%) may be used only in exceptional cases due to the soil concentration danger.
S Sulphur preparations may be used as long as safety precautions are taken to protect useful insects.

The following plant and mineral preparations are approved for plant care, fortification, and improved tenacity:
S extracts, brews, infusions and other herbal preparations;
S seaweed extracts and powders;
S rock dusts such as bentonite and basalt-;
S water glass (sodium tetrasilicate);
S potassium permanganate up to 2% soil as seed-dressing;
  • diatomaceous earth preparations, propolis, soap.
  • Thermal sterilization of horticultural soil is permitted.

Use of methods or substances not mentioned above requires written permission of EKOLAND.

C. ANIMAL HUSBANDRY

I. GENERAL REMARKS

The presence of animals on the organic farm, and their diversity, helps to diversity crops through the necessity of obtaining suitable feeds. Moreover animals enhance the organic material cycle on the farm by producing manure, and by utilizing areas not suitable for cash crops. Animal density should be in the range of 0.5-1.5 LSU per equivalent hectare (see part A.I.).

II. SPECIES AND BREEDS

The choice of species and breeds should depend on local conditions. Animal diversity is desirable as it insures plant diversity. Farm animals are by nature herd animals, and must be given environments suitable to their behavioral and sanitary needs. This means to maintain population levels appropriate to species and breeds, not just to the productive capacity of the farm.

• Those animals should be preferred which assure a satisfactory level of production, and are healthy, long-lived, even-tempered and good grazers.
• Keeping wild animals and/or using them for breeding purposes as well, as interspecific animal hybrids.
requires permission of EKOLAND.

- Keeping animal breeds created through genetic engineering, as well as animals produced by embryo transplant, is prohibited on organic farms. Artificial insemination is permitted.

III. ORIGIN OF FARM ANIMALS

It is recommended, that the animals on organic farms should come from the given farm itself or from other organic farms. They may not come from anonymous sources. It is allowed the documented buy-in of animals from conventional farms:

- day-old chicks (for fattening);
- chicks up to ten days old (as layers);
- calves, kids and lambs not more than 28 days old (their meat may be sold with EKOLAND certificate after at least six months' rearing on the farm),
- cows, goats and milk sheep (their milk may be sold with EKOLAND-certificate after at least one months' rearing on the farm);
- other full grown animals (their meat may be sold with EKOLAND-certificate after at least rearing six months on the farm);
- breeding animals from breeding stocks.

EKOLAND may suspend the above requirements in the case of significant enlargement of the farm, or to accommodate a new line of production.

IV. LIVESTOCK HOUSING AND CARE

- Animals must be kept in such a manner as to insure appropriate, stress-free growth. Stock numbers should be determined by the behavioral characteristics of the animal as well interests of production.

- Animals kept on organic farms should be assured the following:
  - the possibility of free movement in buildings, paddocks and pastures. Keeping farm animals immobilized in closed spaces, tying, leashing and the like for long periods of time, as well electrical prods, are not allowed; in grazing season animals should have free access to pasture (though EKOLAND may, in individual cases, temporally suspend this requirement);
  - housing which guarantees adequate light, protection against extreme temperatures, wind and sun,
  - resting place, with natural bedding material adequate to the needs of each species, furnished with the necessary installations including those for breeding periods; for poultry, ranging area, perches and nests; for water fowl, free access to water and feeds.

- In animal housing no toxic building materials, paints, varnishes or other wood treatments may be used.

- Any procedures undertaken on an animal should be done in such a way as to protect procedures it from stress. The mutilation of animals is prohibited. However certain procedures connected with production and breeding, and involving changes on the animal exterior, are permitted:
  - tail cutting lambs up to 14 days old;
  - tusk removal on sucking pigs up to 3 days old;
  - castration of old breeders no longer used;
  - placing nose rings on breeding bulls.

- Animal fights and training on organic farms is prohibited.
• The animal should be permanently marked appropriate to each species (earrings, tattoos and others).

V. LIVESTOCK NUTRITION

• Nutrition should keep animals in good condition and insure optimal production.
• Feedstuffs must be of good quality and appropriate to the needs of the species. Feeds should be produced on the farm, but documented acquisition from other organic farms is permitted. Feed from conventional farms may be used if its amount does not exceed 10% dry mass of total feed used per year and per daily doses. In special cases (flood, drought, etc.) EKOLAND may temporarily rescind this requirement. EKOLAND may demand an analysis of feed acquired from external sources.
• Mineral or vitamin supplements used in feeds should come from natural sources (e.g. bone meal, cod liver oil, yeast, salt licks). Use of mineral salts and synthetic vitamins in feeds is allowed only when their documented lack in farm-produced feeds has been determined and permission of EKOLAND obtained.
• Use of the following kinds of synthetic supplements in feeds is prohibited: growth and appetite stimulators, colorings, conservation agents, animal dung amino acids, urea, feed components, treated with solvents or subjected to extraction.
• Nutrition of young animals should be based on milk. Use of milk from conventional farms, as well as milk substitutes is permitted, but such preparations must consist mainly of powdered milk and not contain any prohibited supplements.

VI. PROPHYLACTICS AND VETERINARY CARE

All measures related to animal health should have principally a preventive purpose by increasing resistance to disease and infections. It is desirable to have a veterinarian familiar with non-conventional methods such as phytotherapy, homeopathy, acupuncture, etc. In charge of the medical supervision on the organic farm.

All medical intervention must be documented with an exact description of the case (name of disease, its length, treatments used, waiting period, dosage and length of medication, and identification of treated animals).

Conventional treatments may be carried out only in particular cases, for example:

- in life-endangering situation;
- to avoid unnecessary suffering of the animal;
- where no other treatment is possible.

It is prohibited to give medications to healthy animals.

De-worming of newly acquired animals is allowed, but antiparasitics may not used on permanent basis.

Vaccination is permitted when:

- it is required by law;
- diseases on the farm have been detected against which there are no other measures available.
In case of synthetic medications the withdrawal period for products sold with the EKOLAND-certificate shall be twice the length of time recommended by the medication's producer. After long use of synthetic medications on an animal, the meat may be sold as certified only after a half-year's delay.

* All agricultural land in Poland has been classified for tax purposes into eight groups, i.e. soil classes, with respect to its productive value. The total area in particular soil classes of each holding is recorded in local administration register.

To calculate the number of equivalent hectares, which expresses the overall productive value of the farms soils, we multiply the area given soil class times the relevant coefficient (equivalent area for one ha of that class) and then total the results.

Example:
\[
5.3 \text{ ha (I Va)} \times 1.0 + 5.8 \text{ ha (IV b)} \times 0.8 + 10.2 \text{ ha (V)} \times 0.6 + 2.7 \text{ ha (VI)} \times 0.4 = \text{ca. 17 equivalent hectares.}
\]

Thus on a holding of 21.6 hectares of agricultural land, with a productive capacity of ca. 17 equivalent hectares, the maximum allowed livestock density is (17 ha * 1.5 LSU/ha) = 25.7 LSU.