

Organic Agriculture in Sweden

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1 General Information on the Agricultural Situation in Sweden

Although Sweden is one of the biggest countries in Europe, its arable land amounts to only 2.8 million hectares (1998), about 7 percent of the total land area. The rest of the land is covered by forests, mountains, marshlands and lakes (map: http://sunsite.informatik.rwth-aachen.de/Maps/europe/Sweden__rel96.jpg). The climate is favourable for farming, with cold winters that inhibit infestations of many crop pests. However, agricultural conditions and the agricultural structure, activities and traditions differ a great deal from south to north; the average temperature in Lund is +8.5 degrees C, compared to -1.2 in Karesuando, and the growing season in Scania in the south is almost 100 days longer than in Norrbotten in the north. On the other hand, the long days with the midnight sun in the north during the summer months makes the growing period intensive and allow production of high quality potatoes, berries and vegetables. The arable land with grain production is mainly concentrated in the level lands of the south, while production in the north to a great extent is grassland and ley.

Structural development in Sweden in the past few decades has led to intensification and specialisation of agriculture and to fewer and larger farms. In 1961 Sweden had 233,000 agricultural holdings. By 1998 the number had decreased to 85,600. In 1995 Sweden became an EU member and consequently part of the Common Agricultural Policy (CAP). Since then this structural trend has been intensified and the rate of decline has become somewhat higher in the north. During the period 1990 to 1998, the average size of a farm grew from 29 to 33 hectares, the total number of cows decreased while the average number per farm increased from 22 to 30, and the number of pigs per farm increased from 158 to 315. Since 1994, land use also has changed significantly due to current price and subsidy systems: grain and sugar production increased by approximately ten percent, while oilseed production decreased by 60 percent. The production of legumes (peas and beans) increased by 250 percent. Total agricultural production has increased since EU membership in 1995.

EU membership has substantially influenced the economic development of agriculture in Sweden. Product prices are becoming a less important part of the farm economy, while direct supports are becoming more important. Profitability varies from year to year and from commodity to commodity, but as a whole, profitability has decreased for all production during the past five years.

As everywhere else in Europe, structural change and the increased use of pesticides and chemical fertilisers have led to negative effects on the environment. Nitrogen leakage, soil depletion and loss of biotopes and plant and animal species are acknowledged as such effects. National goals and measures for environmental improvement were already introduced in the 1980's. With EU membership in 1995, the Swedish Parliament introduced a new environmental programme with various subgoals, such as support for preservation of landscapes and nature with particular cultural and environmental value, a general support for ley land and pasturage, and support for organic farming.

The overall goal of the Swedish regional policy is to provide employment opportunities, public service and a good environment wherever you live. Due to the climate and other difficult agriculture conditions, long distances, etc., special support is given to northern



Sweden. In addition, this region as well as smaller forested areas and the islands of Öland and Gotland are qualified for the EU grants to less favoured areas.

2 History and Development of Organic Agriculture

2.1 Current Situation

Organic farming in Sweden has had a strong and steady growth, especially during the past decade. In 1999 almost ten percent of Sweden's hectares of arable land were either certified organic or were using the national support programme for organic farming under Council Regulation (EC) 2078/92. This means that the national goal „ten percent organic farming in the year 2000” will be reached. In 1998 4.6 percent, or almost 130,000 hectares, was certified by *KRAV* (<http://www.krav.se/>) or *Svenska Demeterförbundet* (<http://www.antroposofi.com/biodyn/demeter/intro.htm>), the national certification bodies (table 1). After a slight stagnation during 1997 and 1998, the number of farmers registering with KRAV increased strongly again in 1999, which will decrease the gap between certified and uncertified organic farmers. Those who are not certified are not able to sell their products in the organic market.

Table 1: Organic Farming in Sweden by Hectares and Farms (only certified farms)

| Year | Number of farms | % of total | Organically managed area (hectares) | % of total agricultural area |
|------|-----------------|------------|-------------------------------------|------------------------------|
| 1985 | 150 | 0.1 | 1,500 | 0.1 |
| 1986 | 321 | 0.3 | 2,500 | 0.2 |
| 1987 | 466 | 0.5 | 4,870 | 0.3 |
| 1988 | 665 | 0.7 | 8,598 | 0.5 |
| 1989 | 1,607 | 2.0 | 23,600 | 1.1 |
| 1990 | 1,588 | 2.0 | 28,500 | 1.3 |
| 1991 | 1,530 | 2.0 | 31,968 | 1.3 |
| 1992 | 1,489 | 2.0 | 33,267 | 1.4 |
| 1993 | 1,507, | 2.1 | 36,674 | 1.5 |
| 1994 | 1,695 | 2.3 | 48,039 | 1.8 |
| 1995 | 2,473 | 2.6 | 83,490 | 3.2 |
| 1996 | 2,741 | n.a. | 113,995 | n.a. |
| 1997 | 2,733 | n.a. | 118,175 | n.a. |
| 1998 | 2,870 | 3.1 | 127,330 | 3.7 |
| 1999 | 3,253 | 3.8 | 155,674 | 5.5 |

Source: KRAV statistics (<http://www.krav.se/ARKIV/Pdf99/stat99.pdf>)

The biggest increase of organic farming happened after Sweden entered the EU: from 50,000 to 300,000 hectares in five years. The average organic farm size is 46 hectares, while an average conventional farm is 33 hectares. Organic farming can no longer be



considered small niche production for a few rich consumers of health foods. The image of the organic farmer is no longer that of a longhaired hippie producing for household consumption, but that of a modern market-minded agricultural expert who is prepared to meet the future demands for high quality and environmentally sound food production.

Although the growth has been strongest since the introduction of the EU-financed support programmes, this positive development would not have been as pronounced without the strong platform of the organic movement. This article goes through some major mechanisms and events that have contributed to the present situation and will contribute to future development.

2.2 Development of the Organic Movement: Organic Agricultural Organisations

Before the 1980's, organic farming in Sweden consisted of a number of organisations working in isolation, each with its own concept and philosophy: the *Bio-dynamic Association* the oldest, with its centre in Järna; the *Organic Biological Association*; the *Association of Natural Growers*; and so on. A common basis with a common concept of organic farming (*alternativ odling – alternative agriculture*) was formed in the beginning of the 1980s with a forum for co-operation, *SAO – Samarbetsgruppen för Alternativ Odling* (the Co-operation Group for Alternative Agriculture). This is also when organic farming became political and market-oriented in a new and more efficient way. *Kooperativa Förbundet, KF* (<http://www.kf.se/>) (the Consumers' Co-operative), the biggest food chain, pushed this development with its General Assembly's decision to provide their consumers with certified organic products.

The need to work with farmers' interests like policy-making and marketing led the organic farmers to create *ARF – Alternativodlarnas Riksförbund* (the National Association of Alternative Farmers) in February 1985. ARF changed its name to the *Ekologiska Lantbrukarna i Sverige* (<http://ekolantbruk.se/>; Swedish Ecological Farmers Association) in 1994.



The first urgent task for ARF was to create a certification system based on a common concept of organic farming. Two weeks after the founding of ARF, it founded *KRAV* (<http://www.krav.se/>) with the aim of uniting the different organic philosophies and practices under a common system of standards and certification, with a high degree of transparency and openness to participation for any organisation interested in the development of this kind of certification. The first three members were ARF, the Association of Natural Growers, and the conventional *Farmers Federation (Lantbrukarnas Riksförbund, LRF; http://www.lrf.se/)*.

Another task for ARF was to encourage market development and marketing of organic products. The first farmers' co-operative to be founded was *Samodlarna Sverige*, a na-



tional umbrella organisation for regional vegetable co-operatives; others followed for grain, meat, milk and later for eggs. These co-operative organisations all worked with the aim of making the mainstream food market – the processing industry, wholesalers and food chains – to take responsibility for organic products as well.

2.3 Milestones and Successful Policy Work

The next milestone in the history of organic development came in 1989, with the first support for conversion to organic farming. Just before the elections, after a few thrilling days of intensive lobbying by ARF and a threat to stop deliveries of organic products, the agriculture minister launched a concrete proposal for a support programme for farmers, an organic chair at the University of Agriculture, and three regional organic advisors. Since then organic farming has been politically accepted and is an increasingly important actor in the national agricultural policy of Sweden, and has entered a period of strongly increased growth and development.

The next major event happened in 1993, when, after a period of generally low interest in environmental issues, the ARF decided at a General Assembly that a special target was needed to focus greater involvement of society in the development of organic farming. The slogan „ten percent in the year 2000” was introduced and in 1994 was adopted unanimously by Parliament. The ten percent target triggered an interesting development in which the Swedish food and agriculture sector got a common frame for the growth of organic farming. In 1995 the Board of Agriculture together with the Swedish Ecological Farmers Association (<http://ekolantbruk.se/>), KRAV (<http://www.krav.se/>) and other actors, elaborated an action plan – Aktionsplan 2000 – to support the goal. In the action plan, the Board of Agriculture defined the goal as ten percent of arable land. The government adoption of the plan coincided with Swedish EU membership, through which Sweden got access to the support programmes for organic farming, which of course made serious implementation of the plan possible. Actors in the market have set their own ten percent targets and worked wholeheartedly to achieve them, and since 1995 market development has been tremendous, both in the amount and the range of products.

The government adoption of the ten percent goal also coincided with Sweden's accession to the EU, which brought considerable new funding for agri-environmental measures under the 2078/92 regulation. A substantial part of this funding was set aside for support to organic production, with budgeted yearly increases geared to the ten percent target. Uptake of the support program has been very close to the target, and by 1999 the actual expenditure was some 320 million SEK (Swedish Crowns; 37 million EUR), corresponding to over eight percent of total arable area under organic management.

The original support program was regionalised and provided a per hectare payment of 1,600 SEK (184 EUR) in the plains areas and 900 SEK (103 EUR) in the forest areas regardless of crop, with a small supplement for animals in organic husbandry averaging around 400 SEK (46 EUR) per livestock unit. When the new rural development program comes into full effect in 2001, the payment scheme will be rebalanced, so that livestock will generate a larger payment and crops in general generate less. In contrast



to the present scheme, payments will no longer be regionalised, but instead there will be differentiation according to crops.

The new scheme will be as shown in table 2.

Table 2: Per hectare aids for organic farming from 2001 on

| Crop | Per Hectare | |
|---|-------------|-----|
| | SEK | EUR |
| Grass/clover leys | 500 | 57 |
| Cereals | 1,300 | 149 |
| Oilseeds, sugar beet, potatoes and other high-value crops | 2,200 | 253 |
| Vegetables | 5,000 | 575 |
| Fruit & berries | 7,500 | 862 |
| Per livestock unit | 1,700 | 195 |

Source: Ekologiska Lantbrukarna 2000

The main effect of this rebalancing will be an increased incentive to convert the whole farming operation, including the animal husbandry. It will still be possible to convert very gradually or even stop at a partial conversion and still receive some payment, but economically this will be much less attractive than at present. Total budget for the organic support is foreseen to gradually double from present levels to 2005, in keeping with the new government target of 20 percent organic by that year (see below).

The most important result of the ten percent campaign has been the change in attitude towards organic agriculture, which nowadays is fully accepted as a serious market alternative as well as an interest for the whole society in line with other national goals. It is also considered an important tool in the development of Sweden as an eco-cyclic society, and the options that organic farming can offer for the rural economy and the survival of agriculture are increasingly being emphasised. An evaluation of the support for organic farming within the ten percent action plan indicated that it has been successful and that ten percent of arable land will be organic in 2000. However, the fact that the certified organic production will be less is seen as a partial failure. It should also be noted that since EU membership, basically no support has been granted to the work and participation of the organic organisations and very little for market development. The evaluation indicated that more support for marketing and market development would have been beneficial.

Throughout 1999, strategic work took place to discuss and set new targets after 2000. The Ecological Farmers Association (<http://ekolantbruk.se/>) voted for a new goal at the general assembly: „30 20 10 – 30 percent organic production in the year 2010”. Meanwhile, the government commissioned the Board of Agriculture to work out a new five-year goal. After careful market analysis the new overall target of „20 percent in the year 2005” was launched by the government at the end of 1999.



2.4 Other Development Factors

It is obvious that a favourable agricultural policy with strategically elaborated support programmes that aid the economic situation during and after conversion is a strong factor in the growth of organic farming. In Sweden, however, other factors have significantly contributed to very positive sustainable development of organic production.

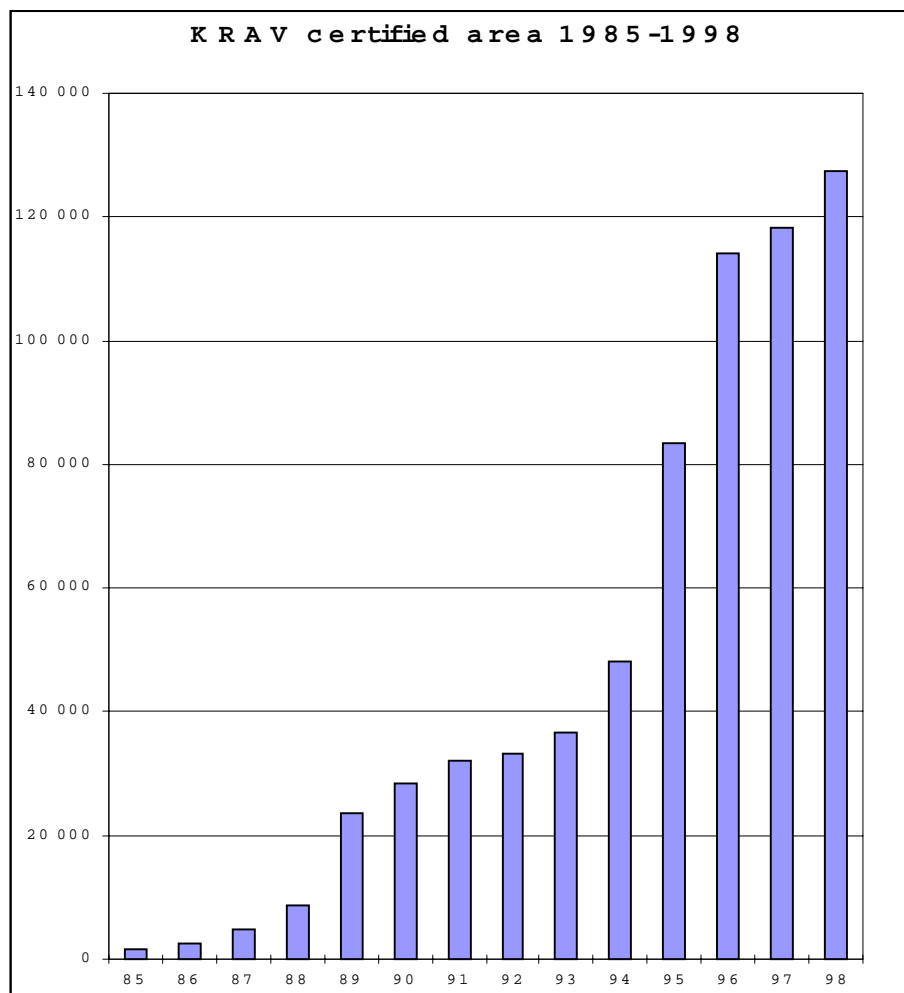
- *A well-organised sector* with a common analysis of problems, the current situation and the goals and objectives of organic farming, and with a strategic division of roles and functions, is a strong lobbying force on all levels. Continuous discussion of the organic concept, trends, developments and strategies is a necessary part of a successful organic movement. In Sweden the main actor in agricultural policy and organisation of farmers is the Ecological Farmers Association. KRAV (<http://www.krav.se/>) and Demeter (<http://www.antroposofi.com/biodyn/demeter/intro.htm>) are the actors in certification and marketing of the labels. The marketing of organic products is the task of the marketing organisations, while market development and consumer information is a part of the activities of both KRAV and the Ecological Farmers as a co-operative project run by the whole movement.
- *Consumers' trust and awareness*: A single certification system and one label supported by all market actors have been very important factors in the successful marketing of the organic concept and products to consumers. A recent survey showed that the KRAV label is the best-known label for environmentally sound food despite relatively little consumer information and marketing efforts. About 40 percent of the consumers surveyed are frequent buyers of organic products. Swedes in general have a relatively high awareness about environment, food quality and animal ethics, which of course is a part of the high consumer demand for organic foods. Apart from the obvious concern that people feel after the series of scandals in the food production in recent years, it is the result of efficient educational activities from the environmental movement, the Society for Nature Conservation, the Natural Step Foundation and the organic organisations.
- *Engagement by the big food chains*: Besides existing local initiatives with direct distribution, the main market strategy has been to get into the supermarkets of the big chains in order to make organic products available to ordinary consumers at fair prices. The Consumers' Co-operative, KPH, was the pioneer in introducing organic products with clear objectives to expand the number and range of products. Other food chains such as ICA and Hemköp have followed the example, and today one can find at least some organic foods in all shops. Different methods are used to increase sales. For example, Hemköp sells organic milk at the same price as conventional without cutting the premium price paid to the producer.
- *Good relationship between the organic and conventional organisations* has always been the aim of the organic movement in Sweden. The Farmers Federation was one of the first members of KRAV and for several years has had a continuous dialogue with the Ecological Farmers. This contact results in different projects aimed at making organic farming better known to conventional farmers and assisting those farmers who are interested in conversion to make the right contacts and find ways to



learn more. In 1999 organic farming was a big issue for the Federation, a programme was elaborated for increased engagement in organic issues, and in the spring the president of the Federation announced that he had begun conversion of his own farm, a three-family enterprise of 800 hectares.

- *Access to advice and know-how* is another crucial factor that farmers look for before they go into organic production in a serious way. Organic farming is often considered more difficult, a production niche for skilled experts, so that farmers often are afraid that they will not be able to manage it. There are many very competent advisors working with organic farmers and facilitating exchange, but the support from relevant research and development is unsatisfactory because of the lack of research resources.

Figure 1: Diagram of KRAV certified area 1985-1998



Source: KRAV statistics



Comments to diagram: Swedish agriculture is grouped into the four main regions of Sweden: the eastern region around Stockholm; the south and south-east; the west; and the northern regions. In the past few years the biggest increase of organic production has taken place in the western part, Västra Götaland, which is a traditional grain-producing region with vast level lands and rich clay soils. The south of Sweden, with some of the best soils, high production and a flourishing agriculture for centuries, also is where the conventional farming and processing industries still hold their tightest grip. Interest is comparatively low and conversion is slow despite the threat of Danish organic products flooding the market! The region around Stockholm, with its very mixed agricultural landscape, has had a steady growth of organic production from the beginning. Despite a smaller area, the north has a comparatively high percentage of organic farming. One reason is that conversion is easier in an area where grassland and ley is a large part of the agriculture land and the use of chemical inputs is low even in conventional farming.

3 Land Use in Organic Farming

Grass/clover leys, including green manure and fallow, occupy the largest share of organic land (table 3), followed by grain.

Table 3: Organic land use (preliminary for 1999)

| | Percentage of total organic agricultural area |
|----------------------|---|
| Grass/clover leys | 67.5 |
| Grain | 30 |
| Potatoes, vegetables | 1.3 |
| Others* | 1.3 |

* oil seeds, green-house, mushroom production

Source: KRAV 1999

Organic grain and oil seed production are highest in the level country with good clay soil in the west of Sweden (Västra Götaland) and the eastern region around Stockholm (see map: http://sunsite.informatik.rwth-aachen.de/Maps/europe/Sweden__rel96.jpg). These also are the main regions for grass/clover ley. The southern region and Gotland are by far the biggest regions for potatoes, sugar beets and vegetables. Organic fruit and berry production still is negligible; the small amount of production is concentrated in Skåne and Västra Götaland.

4 Standards, Certification and State Regulations

Two private sector bodies are recognised by the government authorities to carry out inspection and certification, KRAV (<http://www.krav.se/>) and Svenska Demeterförbun-



det (<http://www.antroposofi.com/biodyn/demeter/intro.htm>). Sweden has no national certification body or legislation defining organic farming. The KRAV standards include standards for crop and animal production, processing, textiles, retailing, catering, and importing. They are based on an equivalent to the IFOAM standards of organic production and are fully recognised by the state. Svenska Demeterförbundet follows Demeter International standards for bio-dynamic production. KRAV is accredited by the IFOAM Accreditation Programme (IAP), which means that KRAV has to fulfil the IFOAM Basic Standards and the IFOAM accreditation criteria. Every third year a re-evaluation is done by the IAP, and KRAV has to send in extensive yearly reports.



The KRAV label has a very strong position on the market for organic food in Sweden, which is unusual for a private certification body. According to a recent (1999) consumer survey, it is the best-known label for environmentally sound food products. The KRAV logo totally dominates.

One reason is that all those involved in organic production, processing and marketing have joined into one organisation with one label. KRAV (<http://www.krav.se/>) is an incorporated association with 24 member organisations (1999) representing farmers, processors, the trade, consumers, and animal and environmental interests. KRAV's main activities are standards development, inspection, certification, and information about KRAV and organic farming. There is no governmental financial support for the cost of certification for the producers; the producers and the other certified entities bear the whole cost of inspection and certification.

In 1999 KRAV certified 3,350 farmers, 600 shops, 600 processing, import and production input companies, 200 restaurants, and 17 textile producers (farmers or processors certified by KRAV Kontroll AB). There were about 3,000 KRAV-certified products.

KRAV takes an active part in developing the IFOAM standards and also works to influence the EU organic production legislation. International inspection and inspection of fish and textile processing is carried out by KRAV Kontroll AB (<http://www.krav.se/>), which is a subsidiary of KRAV. KRAV also works closely with GroLink AB (<http://www.grolink.se/>), which specialises in consultancy work in developing countries, such as in establishing certifying organisations.

5 Implementation of the Council Regulation (EEC) 2092/91

Since Sweden became a member of the EU, the KRAV standards have had to be compatible with the Council Regulation (EEC) 2092/91 (http://europa.eu.int/eur-lex/sv/lif/dat/1991/sv_391R2092.html). The responsibility for this lies with two competent authorities, *Jordbruksverket* (*The Swedish Board of Agriculture*; <http://www.sjv.se/>) and *Livsmedelsverket* (*The National Food Administration*). Two private control bodies, KRAV (<http://www.krav.se/>) and Svenska Demeterförbundet (<http://www.antroposofi.com/biodyn/demeter/intro.htm>) (see above) are recognised to carry out certification and inspection, including certification of organic production outside Sweden. The standards used are those of these private bodies, and even if direct



certification to the EU standards is possible, it is not done in practise. The attitude towards organic labelling from Swedish consumers and the trade is strong support for the KRAV label. There is no interest in the EU logo.

The Swedish organic movement has strongly criticised the EU Regulation. One great problem is the loss of the influence and dynamic processes contributed by a democratic organisation and of the impact of the various interested parties on standards setting. Another is the lack of goals and visions in the EU Regulation of organic farming as an instrument in the development of agricultural production and markets. Organic methods and technologies have developed a lot in the last decade and need to develop much further. The opinion of the Swedish organic movement is that the control system must provide possibilities for development with a focus on the goals and in close interplay with the market. For example, the newly decided animal standards (compared to which the KRAV standards are stricter on several points) are considered rigid and unsatisfactory. Another EU standard that has been much criticised is the standard on organic seed, which is currently a big problem inhibiting sound development.

6 Advisory Services

The main advisory service for organic farmers is organised and carried out by the traditional advisory bodies, the *Agricultural Divisions of the County Administrative Boards (Länsstyrelsen)* and the *Rural Economy and Agricultural Societies (Hushållningssällskapen; <http://www.hush.se/>)*. For as long as there have been organic farmers' organisations there has been good co-operation in education and exchanges of experience between farmers and advisors. Co-operation in organising courses, field days and group extension has a long tradition in the development of competence and experience-building in organic agriculture. The organic farmers organisations' policy for many years has been to improve the quality of advice and extension available through existing institutions rather than building up their own advisory service. Of course, this has involved high participation of experienced organic farmers.

However, there also are other advisory and training initiatives. Several institutes and private organisations have advanced and specialised advisory services for farmers and have advisory activities on conversion, special production, and rural development, individually and in groups. The most active ones are mentioned in the directory. The advisory service also has specialised by having people from processing companies and commodity groups run their own extension to farmers. For the past few years, Arla, the biggest dairy, Odal, the grain trading company, and the organic meat and poultry producers have had a considerable extension service. The Bio-dynamic Association still has its own advisory and training service for bio-dynamic farmers.

The advisors in organic agriculture formed their own organisation in 1994 as a means to both strengthen and complement the advisory service and to have a part in elaborating and improving the quality of the national programme for advisory service, training and demonstration. Since the advisory service is not yet satisfactorily developed, good net-



working is needed among the advisors to fill gaps, such as where a special competence is lacking.

Since 1995, a large part of the advice, training, education, information and demonstration projects have been financed through the Swedish environmental programme for agriculture under Council Regulation (EC) 2078/92, which runs unchanged through the year 2000. The objectives are to promote the growth of organic agriculture with a special effort towards facilitating conversion. The programme is directed towards farmers, farmers' families, farm employees and entrepreneurs involved in organic agriculture. The activities are offered free of charge as long as they fulfil the rules, such as a minimum number of participants and a maximum time for individual advice.

Regional programmes are set up in all 23 Swedish counties with participation of the most important actors within the region. The Ecological Farmers regional organisations are active in developing activities and also can have some of their own activities funded this way. In each region, two to four good examples of organic farms are selected as demonstration farms. Farmers who receive organised field visits or study tours within the programme are given a small monetary compensation. A popular way for organic farmers to use the EU programme to develop their own competence together is to organise „experience groups” in special fields like organic dairy production, strawberries or simply organic farming.

Part of the environmental support for advice and training is directed towards central activities carried out by national organisations or actors. A good example is the Ecological Farmers Association (<http://ekolantbruk.se/>), which finances its members' magazine to a large extent within this programme and some of KRAV's information to farmers. Some of the private advisory organisations also get some funding through the central activities.

The programme for advice, information and training has produced a considerable amount of useful information material that is free of charge for farmers and advisors, and a great number of courses that match the interests and needs of farmers and are easily accessible for them. It has also contributed to the important information activities of the organic organisations. However, the inflexible, bureaucratic requirements in administering the grants and the incredible demands for reporting in detail each penny used and each minute spent make it difficult for both organisations and individual advisors to use the money. Activities have to be carried out and reported before the money is paid, which makes the grants difficult to live with. Another problem is that the grants are not decided until February each year, which leaves the two best months for courses almost without activities. This partly explains why the money is not always fully used.

7 Training and Education

Many courses for farmers are offered within the regional programmes. They can include both comprehensive courses for beginners under conversion and advanced courses on special topics. The regional advisors are responsible for a large part of these courses. The organic farmers also may organise their own courses. The farmers' own „experi-



ence groups” are a popular complement for farmers to gain knowledge, often with advisors participating also.

The *Swedish University of Agricultural Sciences (SLU; <http://www.slu.se/>)* has offered various courses on organic agriculture for students since the early 1980’s. In the past few years, an advanced course on ecological production, organised within the *Centre of Sustainable Agriculture (CUL; <http://www.cul.slu.se/>)*, has been offered to farmers, advisors and others interested in organic farming. This course, which consists of four central seminars and four regional meetings ending with an individual development project by each participant, is a real high point in organic education.

The upper secondary school programme Natural Resource Use offers a three-year curriculum for students in agriculture, horticulture, animal husbandry and forestry. Organic farming is part of school plans to a varying degree, and several schools have converted the whole school to organic.

Most organic organisations and also the advisory and certification organisations produce regular periodicals or newsletters with the latest information in their respective areas. These contribute a great deal to development of competence and improved organic practices.

8 Research

The main actor is the *Swedish University of Agricultural Sciences (SLU; <http://www.slu.se/>)*, with four locations in Uppsala, Alnarp, Skara and Rönneby. The universities of Lund, Gothenburg, Västerås and Stockholm also carry out projects relevant to organic agriculture. The *Biodynamic Research Institute Foundation (Stiftelsen Biodynamiska Forskningsinstitutet, SBFI; <http://www.jdb.se/sbfi/>)* is an independent institute at Järna. In total there are about 100 researchers working on more than 200 research projects about organic farming.

Research in organic agriculture has been going on since the beginning of the 1980’s. In 1989, SLU got its first chair of organic agriculture, and today most organic agriculture programmes and projects are co-ordinated within the *Centre for Sustainable Agriculture, CUL (<http://www.cul.slu.se/>)*.

CUL was founded in 1997 to establish a focal point for researchers and institutions interested in research, development, education and information related to organic farming. Another aim is to promote and facilitate interdisciplinary research methods and co-operation among different actors in society in formulating research goals and prioritising research and development activities.

CUL is managed by a director and a board representing farmers, advisors, consumers, funders and researchers. CUL is responsible for editing the Nordic newsletter „Forskningssnytt om Ökologisk landbruk i Norden”. Other publications are project catalogues, project reports and conference proceedings. CUL activities are financed by the SLU (<http://www.slu.se/>), the Swedish Council for Forestry and Agriculture Research, the Swedish Board of Agriculture (<http://www.sjv.se/>), and the Ekhaga Foundation.



In 1999 CUL finalised a research programme for organic agriculture. It contains goals and an agreed platform for sustainable and ecological agriculture and co-ordinated, prioritised research areas. Nine areas have been elaborated by groups of researchers, advisors and farmers. Each area has a contact person:

- Food Quality Bengt.Lundegardh@mtfd.slu.se
- Farmer Participatory Research Maria.Wivstad@vo.slu.se)
- Integration Farm animals/Plant Production Gunnela.Gustafson@huv.slu.se
- Sustainable Production Systems - System Analysis Torbjorn.Rydberg@vo.slu.se
- Horticulture Johan.Ascard@lt.slu.se
- Domestic Animals Vonne.Lund@hnh.slu.se
- Soil/Plant Karin.Hook@cul.slu.se
- Technology gunnar.lundin@jti.slu.se
- Economy Lars.Drake@ekon.slu.se

A *Research School in Ecological Land Use* was founded in 1997 as a joint effort by five Swedish universities to educate interdisciplinary researchers. The school presently has nine positions for graduate students and is located at CUL (<http://www.cul.slu.se/>). The Ekhaga Experimental Farm complements CUL's activities with experiments, research and practical demonstration.

The national research programme for organic research had a budget of 46.5 MSEK (5.4 million EUR) to distribute between 1996 to 1999. A new research proposal to the Parliament will not be decided until autumn 2000. This leaves 1999 without research resources, which makes the situation for organic research in 2000 unclear. It is a worrisome situation.

9 Marketing

9.1 History

The organic market has developed rapidly since the early 1980's. At that time, organic sales were confined to farm shops and special health food stores. In 1983 the first large-scale supermarket sales of organic products started, based on close co-operation between the organic farmers' marketing co-operative, Samodlarna, and the consumer co-operative chain, Konsum. At that time the product range consisted of simple, unprocessed foods, such as vegetables, potatoes, flour and oat flakes. The establishment of the certification mechanism and a distinct label (KRAV) in 1985 made further expansion possible. The organic market is currently growing by 20 to 30 percent per year. The main limiting factors are the limited supply, high prices and inappropriate product characteristics.

Sweden has a long tradition of farmers' marketing co-operatives (in conventional agriculture as well). At an early stage of the organisation of the organic movement, co-



operatives were formed for the main commodities. These co-operatives, although functioning differently, began the markets for organic products and have since had very important parts in the development of the market. The co-operatives for the milk, grain and meat sectors, which are dependent on infrastructure and large investments, decided not to build their own facilities, but instead negotiated agreements with the mainstream co-operatives for processing and distribution. In the late 1990's, most of these activities were merged into the mainstream co-operatives, and the organic co-operatives served as interest groups to negotiate with the processors, discuss organic marketing policies and strategies, and provide consumer information. Vegetables and potatoes are still marketed either directly from the farmers to the distributors, or more commonly through Samodlarna.

9.2 Consumer Attitudes

It is obvious from the increasing demand for organic products that consumer interest is growing. To find out more about „the organic consumer” and his/her motives and attitudes, KRAV (<http://www.krav.se/>) and LRF (<http://www.lrf.se/>; The Farmers Federation) did a survey that was published in January 2000. The survey showed among other things that

- The most frequent organic buyers are female, married, adults without children, aged 50+, who buy their food at Konsum. They also care about packaging material and the origin of the product, they enjoy cooking, and they eat more health foods.
- KRAV is the best-known label for environmentally sound production of food.
- Positive effects on the environment is regarded as the best quality of KRAV products, while the higher price is the worst.
- 70 percent of consumers lack enough information about what the KRAV label and organic farming stand for. More consumer information would probably contribute to positive market development of organic products.

9.3 Development of Product Groups

Different product groups are growing at very different rates. Milk presently has and probably will continue to have the strongest growth the next few years.

Organic *grain* was grown on three percent of the total grain area in 1998, and was two percent of the total yield. 66 percent of the organic grain is used as animal feed on the farm where it is produced. Only a few years ago, 100 percent of the organic grain had to be marketed as food grain, but although marketing of animal products has started developing, almost 50 percent of the organic grain sold from the farms goes to food products. This is a much higher percentage than from conventional grain sale. The organic grain trade is unregulated, which has led to fluctuating premiums depending on surpluses or shortages. EcoTrade AB (<http://www.odal.se/odal/spannmal/krav/kravstyr.htm>), the main marketing organisation for organic grain, is working for long-term contracts for farmers who can supply sufficient quality.



Organic *milk* was three percent of total milk production in 1998. Arla, the biggest dairy, is leading in market development with a planned strategic campaign to recruit producers to meet a specific demand for organic milk. Their strategy has been a very successful one, now followed by plans to expand the range of dairy products. The fusion of Arla and the Danish dairy MD Foods has worried some organic farmers, but Arla sees no risk of falling prices or a loss of markets for Swedish farmers.

Organic *meat* production and marketing has been more complicated. Organic pork is still only 0.2 percent of total production. A shortage of pork inhibits the production of processed meat products, which in turn inhibits the overall marketing of meat. Most animals are slaughtered and marketed by the large co-operative SQM (Swedish Quality Meats). A major structural change of the industry is one reason that organic meat has not been given priority. The slow development has encouraged several small-scale processors to develop private slaughter-houses with their own processing industry.

Organic vegetables have a market share of three percent. The major part (70 percent) is sold by Samodlarna to wholesalers and the processing industry. About 15 percent of the producers have individual contracts and sell directly to wholesalers; the rest are mostly small-scale producers selling directly to consumers or a local market. Today there are several frozen and tinned vegetables, crisps and baby foods. Since production is not growing fast enough, there is a shortage of products, which is met by increasing imports.

Organic *egg* production has grown rapidly in the last few years, with two percent of the laying hens now organic. The egg market is a market of very low prices which makes conversion difficult and the organic eggs comparatively very expensive. The market is therefore unstable and there is a certain surplus.

9.4 Development of a Retail Market

All major retailers are distributing organic products. The market shares differ a lot among retailers, geographical areas and product groups.

Gröna Konsum – a consumer co-operative retail chain that has 450 shops and is a pioneer in the Swedish organic market – claims that 4.5 percent of *Gröna Konsum*'s total sales are organic foods (table 3). *Gröna Konsum* accounts for the highest fraction of sales of any supermarket chain in Europe. *Konsum* has developed the „Änglamark” private brand for organic products for all the chains affiliated with the consumer co-operative movement (*Gröna Konsum*, *Konsum*, *OBS*, *B&W*, etc).

Table 4: Market shares for *Gröna Konsum*

| Product | Percent of sales (1998) |
|-------------|-------------------------|
| Milk | 11 % |
| Wheat flour | 11 % |
| Potatoes | 6 % |
| Coffee | 6 % |
| Bananas | 3,5 % |

Source: Grolink



ICA – a shop owners’ co-operative with 2,100 shops, the largest retail chain in Sweden – has set the goal of ten percent organic products by the year 2000 (table 4). A high proportion of the sales is under the private brand „Sunda”.

Table 5: Market shares for ICA

| Product | Percent of sales (1998) |
|----------------|-------------------------------|
| Potatoes | 3 % |
| Fruit and veg. | 1 - 8 % (depending on season) |
| Baby food | 6 % |
| Wheat flour | 3 % |
| Coffee | 1 % |

Source: Grolink

Hemköp, a smaller chain with 90 shops, recently has made efforts to become a leader in the marketing of organic products. In 1999 they set the retail price of organic milk to be the same as conventional, and ten percent of their milk sales is organic.

9.5 Restaurants and Catering

This sector is less developed than the retail market, but in recent years there have been several important developments. Some examples:

- 27 percent of municipalities served organic food in schools or hospitals in 1998. An additional 33 percent are planning to start. This does not mean that they serve only organic food, rather that at least some organic products are served.
- McDonald’s in Sweden serves organic milk and coffee exclusively. They also buy organic meat, but there is insufficient supply.
- Railroad restaurant cars serve organic coffee and milk, and usually offer at least one organic dish. Organic coffee is sold at airports and railroad stations.
- An organic, vegetarian, fast-food restaurant chain, Meaning Green, opened seven restaurants in Sweden in 1998. They have plans to establish themselves in Europe and the USA.

9.6 Processors

Almost all major food processors in Sweden have taken up organic products. KRAV has almost 500 processing units under its inspection. Some examples:

- Wheat flour from the major mills has been available since the mid1980s.
- The leading manufacturer of crisp breads, Wasa (owned by Sandoz), started making organic crisp bread in the early 1990’s.
- The company with the largest share of the company’s total organic production, 3.5 percent, is the biggest Swedish dairy Arla. In some regions organic milk is over ten percent. Because of a shortage of organic milk, the range of processed milk products is not so large yet, but they are now offering butter, cheeses and some yoghurts.



- Danisco, a Danish company having a monopoly in Swedish and Danish sugar (sugar beet) production, has run an organic sugar project for four years. Because of supply problems they have increased the organic premium to growers from 50 percent to 80 percent.
- All but one Swedish coffee roaster markets organic coffee.

(The main limiting factor in organic food processing is still the lack of a reliable supply of raw materials. The organic standards themselves limit the use of certain additives and processing aids and methods, which may be a restriction. The requirements for separation of organic and conventional products may also create problems).

9.7 Imports and Exports

Organic products have been imported for more than a decade. Imports are oriented towards products that are not produced or not available in sufficient quantity in Sweden. Organic imports often use the same channels as non-organic products. Major exporting countries to Sweden are the Netherlands, Denmark, Italy, USA, Israel, and Argentina. Total exports are less than total imports. Exports of grains, mainly oats, rye and wheat, have been going on for a longer time. Other exported products are crisp bread, marmalade, pork and UHT-milk. Major export markets are Denmark and the United Kingdom.

9.8 Trade Margins and Pricing Structure

Almost all organic products receive a premium price. Generally the price difference is less for processed products. For some agricultural products, especially milk, the producer prices are linked to conventional prices, with a premium fixed either in Swedish crowns or as a percentage. For other products, such as grains, most of the production is contracted in advance with an agreed price. For still other products, especially vegetables and fruit, prices fluctuate widely.

For processed products there is a wide range in retail prices (table 5). The prices of some products may be about the same price whether organic or conventional, and occasionally the organic version is cheaper. This is especially the case for products with low costs for raw materials. Also, the pricing policy of the retailers may favour an organic product, and other products may be more costly.

Table 6: Some examples of producer prices via wholesale trade (June 1998)

| Product | Conventional Price per kg | | Organic Price per kg | | Premium (%) |
|-----------------|---------------------------|------|----------------------|------|-------------|
| | SEK | EUR | SEK | EUR | |
| Milk | 3.06 | 0.35 | 3.56 | 0.41 | 16 |
| Beef | 23.00 | 2.66 | 28.50 | 3.29 | 23 |
| Pork | 11.00 | 1.27 | 21.50 | 2.49 | 95 |
| Lamb | 28.00 | 3.24 | 32.00 | 3.70 | 14 |
| Egg | 7.50 | 0.87 | 20.00 | 2.31 | 166 |
| Grain for bread | 1.00 | 0.12 | 1.70 | 0.20 | 70 |
| Grain for feed | 0.92 | 0.11 | 1.52 | 0.18 | 70 |



| Product | Conventional Price per kg | | Organic Price per kg | | Premium (%) |
|--------------------|---------------------------|------|----------------------|------|-------------|
| Sugar beets | 0.41 | 0.05 | 0.78 | 0.09 | 90 |
| Rape Seed (Canola) | 1.93 | 0.22 | 3.00 | 0.35 | 55 |
| Potatoes | 1.64 | 0.19 | 2.80 | 0.34 | 70 |

Source: Jordbruksverket, Mål för ekologisk produktion, 1999

10 Challenges and outlook

Organic agriculture has definitely established itself as a serious alternative to existing conventional agricultural systems. With the positive interest from consumers, farmers and policy makers, and with national goals for the next five-year period, there is every indication that organic agriculture will continue to grow. Surveys carried out by the media and various organisations all point in the same direction: at present between 40 and 45 percent of conventional farmers are interested in conversion (which doesn't mean that they will start the conversion process this year!).

It is obvious that continuously growing production helps the development in itself; more production gives more stable availability, which helps new market initiatives and processing industries dare to invest in expansion. More production also decreases the disadvantages of small volumes in the whole distribution chain, which can lead to lower costs, lower consumer prices and increased willingness to buy organic. More sells better!

There are, however, several prerequisites for stable and positive development in the near future:

- an agriculture policy programme that benefits organic agriculture
- development of standards in a way that encourages development and democratic processes
- a well-organised organic sector that participates in national programmes and other initiatives concerning organic agriculture
- consumer information/education and continued building of consumer trust
- marketing strategies and market development
- good relations between organic and conventional farmers' organisations
- relevant applied research and development
- follow-up and analysis of the effects of different initiatives such as standards and support schemes
- improved structure and competence of the advisory sector

Money must be allocated for this supporting structure. When the development and growth has this positive outlook, some reflections are needed about future tasks for the organic movement. When organic becomes an established and „normal” part of food production, and other actors outside the organic movement are taking over a great part



of the initiative, the organic organisations must reflect and redefine their roles. The key word in the future is *trust* in the concept that consumers, taxpayers and farmers invest in.

- In the growth of the organic sector, whether in marketing, research projects or policy initiatives, the basic idea of organic farming, its vision, must be visible. Development work and inputs must be enriched by the values of organic farming and the changes in the food system that organic farming wants to achieve. Different initiatives must be evaluated according to the goals of organic agriculture to see if they have the right effects.
- When a phenomenon is threatening the world order the way organic agriculture is doing, an obvious reaction is criticism. The organic sector's success will be accompanied by accusations that it is not fulfilling its promises about improving the environment, biological diversity, animal health, food quality, etc. These must be handled by serious efforts to document what is happening using the results of correct investigations and evaluations. This also means that organic farmers must accept the responsibility of trying to live up to the promises and to assess, improve and develop their production systems.
- Organic agriculture is more than the EU standards! It is a model for development and change, and it should continue to be a spearhead in agricultural development by researching and allowing new ideas and new knowledge to improve its sustainability.

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