

**About Swan-labelled
Restaurants**

Background to ecolabelling



Nordic Ecolabelling

Swan-labelled restaurants - Background to ecolabelling

Product group number/Version, Date

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1 Summary

Various functions at restaurants have an impact on the environment. The food that is served in the restaurant can have a significant impact. The kitchen consumes water and energy (for food preparation, dishwashing and refrigeration/freezing). Dishwashing and cleaning cause environmental impact, as do the consumables used in the restaurant. A restaurant produces waste of which the organic fraction in particular can be significant. The transport of goods to and from the restaurant also impacts the environment.

Nordic ecolabelling has now developed criteria for restaurants and institutional kitchens. The scope of the product group is based on wishes expressed by the industry and interest for the project has been great in the Nordic region. Several pilot restaurants have actively participated in the development of the criteria.

The environmental requirements for restaurants focus on the functions with the greatest environmental impact. Strict mandatory requirements are set for activities. Point score requirements enable the restaurant to select further areas in which to reduce environmental impact. Accordingly, the requirements are suitable for a range of restaurant types.

A Swan-labelled restaurant must serve organic foodstuffs. The proportion of organic food varies with higher limits in Sweden and Denmark than in the other Nordic countries due to the limited availability of organic produce there. Restaurants can be awarded points for using local and regional produce, serving vegetarian dishes or using Fairtrade products. Certain ingredients are prohibited (GMO foods, tiger prawns) and the restaurant must always know the origin of main ingredients.

Strict environmental requirements are set for chemical products and consumables that the restaurants use for dishwashing and cleaning. The use of disposable products is forbidden in Swan-labelled restaurants. In special cases (catering, take-away or fast-food), disposable items may be permitted, in which case strict requirements are placed on the constituent materials and a plan to reduce the use of disposable materials must exist.

To be awarded the Swan label, a restaurant must monitor energy use and perform several energy and water-saving measures. To reduce the greenhouse effect, renewable energy sources score highly and refrigerants that deplete the ozone layer are prohibited. The restaurant must sort waste and caterers must assess methods of transport. Points can be awarded for various waste-reduction actions and eco-friendly transport.

To manage the restaurant's environmental activities, the restaurant must have a functional environmental management system. The environmental management section of the criteria is designed to support the restaurant's environmental activities. Certain environmental management requirements are mandatory and require that individuals are assigned responsibility for key functions. Chemical handling must be managed by a member of staff who has received the necessary training. Certain environmental management requirements are point scoring allowing the restaurant to select which actions to choose to ensure the continual improvement of environmental efforts.

2 General facts about the criteria

This section provides a brief background to why Nordic Ecolabelling has chosen to develop criteria for restaurants.

Products that can be labelled

All types of restaurants can be Swan labelled. The term restaurant includes all businesses that serve ready-prepared food that is to be consumed on the premises. This includes restaurants, institutional kitchens, canteens, street kitchens, and cafés, as well as canteens in schools, hospitals and similar. Catering operations and take-away restaurants can also be Swan labelled. The primary function of the restaurant shall be to prepare and serve food. This means, for example, that a counter in a shop that serves prefab food and salads cannot be Swan labelled according to the restaurant criteria since the store has a different main function.

The requirements are design such that both large and small restaurants can be awarded a Swan licence.

Justification for Swan labelling

A preliminary study has been conducted regarding the Swan labelling of restaurants. This preliminary study was completed in September 2004 and formed the basis for criteria development. The initiative to the preliminary study came from a show of interest from several restaurants mainly in Sweden that wished to promote their restaurant with the Swan label.

Restaurants have previously been considered in Nordic Ecolabelling's study of services (Ecolabelling of services – Opportunities and barriers, 99.05.30 (in Swedish)), and partly through the Swan labelling of hotels (restaurant activities are included in the criteria).

Restaurants impact on the environment in several areas. Environmental gains can for example be made by managing energy and water consumption, waste management and the purchase of goods. Experiences from the ecolabelling of hotels show that restaurants are run in various ways regarding environmental impact and that there is accordingly scope for improvement.

Restaurants cause a significant environmental impact, which can be reduced through ecolabelling. The preliminary study concluded that it is possible to create dynamic requirements that take into regard the differences between small and large restaurants or restaurants with various clientele through a combination of mandatory and point score requirements and environmental management requirements.

Deep interviews conducted during the preliminary study with various restaurants showed a genuine interest to use the Swan label for promotion, especially in Finland and Sweden. Several of the interviewed restaurants also showed an interest in participating in criteria development.

The Nordic market

The Nordic countries have many restaurants. See Table 1. Restaurants are typically small businesses. The majority have fewer than 10 employees, and only a very small proportion have more than 50 employees. The greatest number of servings are prepared in school kitchens. Comprehensive statistics of the total number of restaurants and institutional kitchens in the Nordic region has not been found. Table 1 shows statistics for certain types of restaurant.

Table 1 Restaurants in the Nordic region

	Fewer than 10 employees	Fewer than 20 employees	Fewer than 50 employees	Total no. restaurants
Denmark				10,703
Finland 2005				13,101*
Iceland 2004				674**
Norway 2003	5,032 (77%)		1,439 (98%)	6,544 ***
Sweden 2005	18,324 (92,%)	19,274 (97%)		19,838 ****

* Finland: includes restaurants, cafés and hotels

** Iceland: 560 restaurants, 16 hotel restaurants, 67 canteens. Does not include pubs/bars.

*** Norway: does not include canteens and catering establishments (1,008 in 2004) nor hotel restaurants.

**** Sweden: includes restaurants, cafés and fast-food establishments.

Sources: Horesta, NHO Reiseliv/Statistics Norway, Statistics Sweden, SHR, Statistics Iceland

There is no uniform classification on the Nordic market. There are many types of restaurants and business types: lunch/local restaurants, hotel restaurants, hamburger restaurants, staff/company canteens, gourmet restaurants, street kitchens, cafés/coffee houses, pizza parlours, night-club restaurants, national restaurants, pubs/bars, service stations and restaurants in departments stores/shopping centres.

To establish interest from the trade, the preliminary study of restaurants included several interviews in the Nordic countries (7 in Denmark, 5 in Finland, 5 in Norway and 6 in Sweden). Interviewees varied between privately owned restaurants, restaurants that are part of a chain, mid-priced restaurants, gourmet restaurants, restaurants with a distinct environmental image, lunch/local restaurants outside metropolitan areas and trade associations. Simple restaurants with simple were not included.

The interviews showed that the Swan commands a good image. All respondents believed the Swan's environmental activities to be important. The majority also felt that restaurants can impact on the environment in some way and that restaurants should be more active in environmental issues and in informing customers as to actions in this area. The respondents emphasised that quality, price, availability and service are the most important factors for clients and that environmental efforts can be seen as value-adding.

Several restaurants were willing to participate in criteria development and pilot restaurants to test the criteria. The majority of restaurants could consider becoming Swan labelled if:

- customers (clearly) appreciated the Swan and the Swan attracted customers to the restaurant.
- a Swan licence gives economic gains (by cutting costs).
- the Swan increases publicity.
- the Swan is useful tool in communicating environmental activities.
- the criteria are concrete.
- a Swan licence is not too expensive.

The preliminary study identified the following factors that can influence a restaurant's interest in an environmental image and Swan labelling:

- Energy consumption: restaurants may not have full control over ventilation and heating systems, and monitoring systems are difficult to install in old premises.
- Transport: restaurants have little control over transport methods. However, the supplier can significantly influence the restaurant's purchasing habits, service, etc.
- Great variation between restaurants: the criteria must be very flexible.
- Economic gain: there is potential for Swan labelling to produce economic gain. It is therefore important to ensure that the environmental requirement increase the licensee's profits relatively quickly (e.g. by cutting costs).

Other labels

No ecolabelling system has developed criteria for restaurants in accordance with the ISO 14024 standard. There are however several labels and systems for restaurants. These include Den Gröne Nögle (DK), Good from Finland (Fin), Portaat Luomuun (Fin), Quality 1000 (Fin), Debio (N), Miljøfyrtårnet (N), KRAV (S) and the international environmental management system ISO 14000/EMAS. The preliminary study includes a more in-depth review of other ecolabels and control systems in the area.

3 Criteria development

Aim of criteria development

The aim of the project has been to develop criteria for the ecolabelling of restaurants. The criteria should be such that it is simple to apply for a license.

The Swedish office was responsible for the project from the start of 2005 to the start of 2006, after which the Finnish office took charge. The Swedish, Finnish and Icelandic offices have all been involved from the start, and the Norwegian office joined at the start of 2006. Since the Danish office chose not to actively participate, the information about the Danish market in this background document is incomplete.

Project participants

Project manager	Karin Bergbom SFS (2006) / Marie Fahlin (2005)
PGA, Finland:	Hannu Mattila
PGA, Norway:	Marte Halvorsen
PGA, Sweden:	Lena Rogeman
PGA, Iceland:	Sigrún Guðmundsdóttir

Sweden / pilot study and marketing: Maria Sundesten

Finland / pilot study and marketing: Tanja Rajamäki

Norway / pilot study and marketing: Randi Rødseth

Denmark / consultation only: Susanne Møller

A new method of criteria development has been used with a specific website for the restaurant project. The restaurant portal can be found at:

www.ecolabel.nu/restaurant. The website is published in Swedish, Finnish and Icelandic, which allows interested parties such as restaurants, restaurant chains, suppliers, public authorities and trade associations to follow the project. The portal has received many visitors, especially from Finland and Sweden.

The criteria have been developed in collaboration with pilot restaurants, which were selected to offer a broad spectrum of restaurant types. The pilot restaurants became involved in the project through the Swan website and restaurant portal, as well as press releases and collaboration through trade associations. Several of the pilots have previously come into contact with the Swan labelling of hotels, which is the reason for their desire to be involved in the project. The selected pilots have been able to voice their views about the criteria and help with the design of the requirements.

The following table lists the pilot restaurants that were selected for the project. Despite the non-involvement of the Danish office, one Danish restaurant has been involved in the project.

Tabell 1. Nordic pilot restaurants

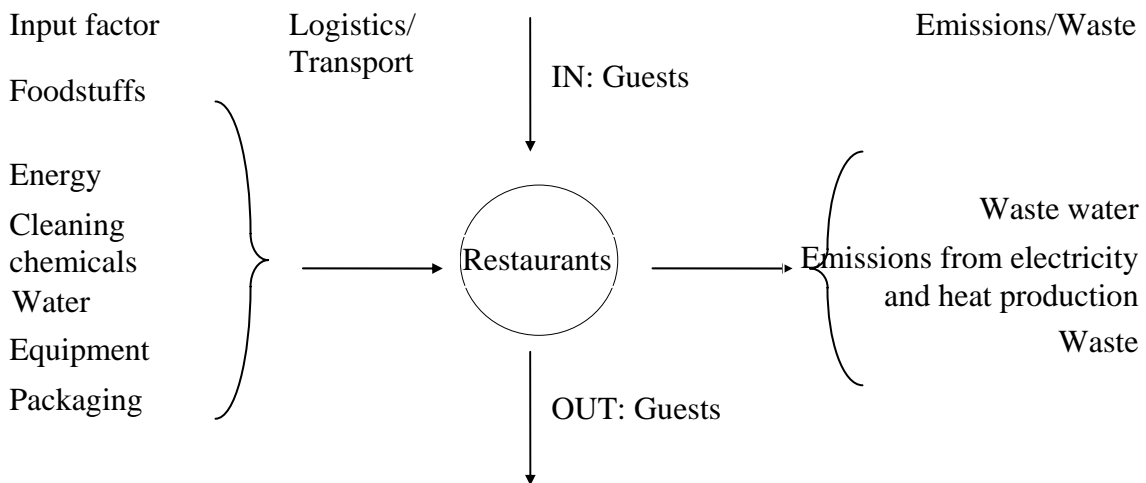
Pilot restaurant	Type of restaurant	Number of employees (full+part-time)
Sweden:		
Salt & Brygga, Malmö	Gourmet	7 +5
Sånga Säby, Stockholm	Conference centre	10-15 + 10
Tomelilla Golfrestaurang, MR/Gourmet, Tomelilla	á la carte restaurant	4 + 14
Kukkolaforsen in Norrbotten	General, conference centre	4 + seasonal
MAX Hamburgerrestauranger, Stockholm	fast-food chain	Approx. 1900
Café Artist, Scandic Winn, Karlstad	Lunch, conference centre	20
Vasamuseets Restaurang AB, Stockholm	Self-service/banqueting/museum restaurant	20
Gröna Lunds restauranger /Kaskad	Lunch, traditional Swedish fare, banqueting, bistro	4 + seasonal
HÖRS Högskolerestauranger AB	University chain (38 lunch restaurants, university refectories and cafés)	180
Bodarne Krog (& Rastpunkt Laxå)		
Finland:		
Krapihovi, Tusby	Lunch, á la carte	13+8
Unicafe, Helsinki	University chain (19 restaurants)	160+15
Kuusi Sisarta, Nådendal	Municipal lunch restaurant	4+1
Oittaa friluftscentrum, Esbo	Lunch, á la carte, café, catering	7+20
Hima&Sali, Helsinki	lunch/café/catering	20
Näköala, Tampere	Municipal lunch restaurant	5
Kaimalan Karhulampi, Paimio	Catering	2+10
Wanha Autti, Autti	Catering	2+3
Country Club Vierumäki	á la carte, café, lunch, breakfast	13+15
Jagelonnica, Esbo	Lunch	
Takkatupa, Pihtipudas		
Iltalento, Hailuoto		
Norway:		
Nobel Catering	Catering	9+2
Kampen Bistro	á la carte	10+4
Denmark:		
Noma, Copenhagen	Gourmet	

4 Justification of the requirements

The environmental impact of restaurants

Restaurants impact on the environment in various ways. The greatest impact comes from energy consumption in the kitchen from the preparing of food, distribution, dishwashing and refrigeration/freezing. In addition, restaurants produce waste and use water can chemical products for dishwashing and cleaning. The method of production and transport of raw ingredients also plays a part.

No collected statistics over restaurants' use of energy and water, carbon dioxide emissions and waste production were available during this project. Other statistics have been used where available.



	Relevance	Potential	Controllability
Energy consumption/heating	Yes	Yes	Partial (restaurants often rent premises)
Energy consumption/electricity	Yes	Yes	Yes
Waste	Yes	Yes	Partial (highly dependent on municipal waste handling)
Purchase of foodstuffs and equipment	Yes	Yes	Partial (low availability of organic foodstuffs)
Water consumption	Yes	Yes	Yes, but difficult to monitor
Chemical products	Yes	Yes	Yes
Transport	Yes	Yes	Low

Source of image and table: Preliminary study for the Swan labelling of restaurants. For an explanation of the terms relevance, potential and controllability, refer to Nordic Ecolabelling's environmental philosophy.

Criteria structure

The criteria for restaurants and institutional kitchens comprise a combination of obligatory requirements and point score requirements. The letter **"O" and a number** indicate obligatory requirements. These requirements must be fulfilled. The letter **"P" and a number** distinguish point score requirements. Each requirement of this type gives a point score. These scores are then totalled. A minimum total score must be achieved to fulfil the licence constraints.

Section 1 General requirements

O1 Description of the restaurant

The purpose of this requirement is to provide a picture of the type of restaurant and its activities.

Restaurant or restaurant chain. Whether the restaurant is independent or part of a chain has significance regarding environmental management requirements but also the ability to influence purchases.

Number of employees, guests and servings. These details are important such as for the documentation of environmental management requirements.

The restaurant is seasonal (e.g. only open in summer) This is required for the documentation of environmental management and other requirements.

Turnover. This information is required for the documentation of several requirements, in particular in the section on food.

Restaurant size, m² (kitchen and dining area separately). This is required to gain an idea of the size of the business.

Location. This gives an indication of to what influence the restaurant has over deliveries, waste management, and water and energy-saving measures.

Type of restaurant. The environmental impact of a restaurant is intrinsically connected to the type of services offered. For example, special requirements apply to catering and take-away services.

Section 2 Food

The influence of food on the environment and energy consumption

The environmental impact of food production and the food chain is considerable. Central environmental issues associated with farming and the production of food include eutrophication, leaching, biodiversity, and greenhouse gas emissions. A current new problem is the introduction of genetically modified organisms (GMO)

Energy consumption accounts for a very large proportion of the food's environmental impact. Swedish calculations estimate that in 2000, energy consumption was 30 TWh and carbon monoxide emissions roughly 4 million tonnes in Sweden alone. The environmental impact of imported foodstuffs is also significant since almost 40% of all foodstuffs are imported. In 2000, the average Swede consumed approximately 800 kg of food and drink (Carlsson-Kanyama & Engström 2003). One fifth of the food consumed in Sweden is served from institutional kitchens in the public sector. This is equivalent to 1.2 billion meals a year (Gustavsson & Kretschmann 2001).

In Finland, roughly 700 million servings were prepared in 20,000 institutional kitchens. The annual energy consumption of this food preparation is 600 GWh (TTS & al 2001). Roughly half of the emissions of nutrients and 9% of greenhouse gasses in Finland come from agriculture (Seppänen & al 2006).

The energy required to serve a dish gives an indication of the environmental impact of restaurant food. For example, the energy requirement from field to table for a hamburger varies between 7.3-20 MJ. Most energy is required to produce the hamburger (meat), followed by the vegetables if these have been cultivated in a greenhouse. Baking bread also consumes a considerable amount of energy, while the other ingredients account for less than 1% of the energy requirement. Energy can be saved by using energy-efficient transport, refrigerators and freezers, and industrialised processes. Further, substituting meat with vegetables, chicken or fish saves energy, as too does avoiding vegetables grown in greenhouses. Short storage times for frozen ingredients such as bread and meat also saves energy (Carlsson-Kanyama & Faist 2000).

In general, the greatest impact from the production of meat and cheese comes from primary production, which includes the growing of feed, feed transport and rearing. The consumer phase, which includes storage of produce, may be of great significance to the total energy consumption for foodstuffs of non-animal origin. Packaging can be a significant factor in energy consumption for certain foodstuffs. Examples include iceberg lettuce, carrot puree and tomato ketchup. However, packaging is not generally a significant source of energy consumption if the entire food chain is considered (Carlsson-Kanyama & Engström 2003).

O2 Origin of main ingredients

This requirement is included so that a Swan-labelled restaurant is always able to inform the customer of the origin of main ingredients. All the pilot restaurants considered this a very important requirement. The requirement applies to prepared dishes and only to the main ingredients. It is not necessary for the restaurant to know the origin of seasoning and spices, for example.

O3 Banned ingredients

The aim of this requirement is to prohibit the use of ingredients that through their production produce a clear and significant environmental impact, or that may cause long-term effects to health or the environment. A Swan-labelled restaurant is not allowed to serve GMO or tiger prawns/scampi. This requirement is supplemented by the point score requirement P19.

Prohibition of GMO

Modern genetic engineering makes it possible to alter the characteristics of plants and foodstuffs in a way that is not possible with traditional cultivation. For example, genes from one species can be transferred to another or modified to change specific characteristics. The term genetically modified foodstuffs refers to the organism that is an ingredient in the product. For the sake of simplicity, the term GMO is often used when strictly speaking one refers to "foodstuffs made of genetically modified organisms". For example, GMO-ketchup is ketchup that is made from genetically modified tomatoes (SLV).

Several EU regulations control the use of GMO in foodstuffs and animal feed. Regulation (EC) No 1829/2003 controls the approval of GMO in food and feed and sets out requirements on the labelling of products that include GMO. Regulation (EC) No 1830/2003 concerns the traceability and labelling of GMO products and products produced from genetically modified organisms.

One example of the application of this technology is the introduction of genes from soil bacteria into crops to increase insect resistance and herbicide tolerance. The technique can also be used to produce crops enriched in nutrients (SLV).

The risks and benefits of GMO are a matter of great debate. The most central issues according to WHO are the risk of that GMOs spread their genes to wild populations, the persistence of GMOs following harvesting, the sensitivity of non-target organisms to genetically modified products, gene stability, a reduction of biodiversity and increased chemical use in agriculture. Several environmental organisations assert that it is first necessary to gain more knowledge about the consequences of the use of GMO before permitting their use. There is very little knowledge about the long-term effects on health and the environment, although no impending threat of eating GMOs have been identified (SNF).

Several of the pilot restaurants already have a policy that prohibits the use of GMOs and consider it only natural that a Swan-labelled restaurant may not serve GMO food. Nordic Ecolabelling applies a principle of conservatism in this question and therefore prohibits the use of GMOs in Swan-labelled restaurants.

Prohibition of tiger prawns

Tiger prawn is a common name for tropical shrimps. In shops and on restaurant menus they are often also called king prawns, Thai prawns, jumbo shrimps or scampi. All these prawns are included by the term "tiger prawn". These shrimps are significantly larger than prawns from North Atlantic waters, and can grow to over 30 cm long (SNF).

There is a clear connection between the consumption of tiger prawns and the destruction of the mangrove forest in the countries of origin (e.g. Thailand, Bangladesh and Indonesia). The tropical mangrove forests are among the world's most productive ecosystems and provide nurseries for fish, shrimps, crabs and other creatures. The mangrove belt protects the coastal area against floods and

erosion. Millions of people depend on the mangroves for their livelihood. To farm tiger prawns, mangrove forest is being felled to create artificial ponds. To increase productivity, chemicals and antibiotics are often used and the polluted water must be changed regularly. It is not uncommon that a shrimp farm lasts only five to ten years. After this period, the pond is abandoned due to disease and a new mangrove area cleared to make way for a new pond. Abandoned ponds are of no use to the local population. In addition, the net loss of animal protein is great since to produce 1 kg of shrimps requires 2-3 kg of fish (SNF). Tiger prawns are a topic of general debate and several restaurants and restaurant chains have taken an active stance on serving tiger prawns.

A Swan-labelled restaurant is not allowed to serve tiger prawns. There are many reports that illuminate the negative environmental impact of shrimp farming. The Swan has therefore chosen to prohibit the use of tiger prawns even though there are many products that for environmental or other ethical reasons warrant similar treatment. There is however no reason to waive a ban in this specific case, despite there being reason to ban other products if more knowledge was available.

Trials are currently being run on Iceland to farm tiger prawns. This method of farming does not cause the same environmental impact as the tropical shrimps and these shrimps are therefore permitted in Swan-labelled restaurants.

To facilitate the possible prohibition of other products, the environmental management requirement P19 enables restaurants to score points for products that are precluded on environmental grounds. The preclusion must be well justified. By banning two ingredient groups in this first version, the Swan wishes to signal that prohibitions in this area are important and that the list of banned ingredients is most likely to expand in future versions of the criteria as knowledge in this area grows.

P1 Organic foodstuffs and beverages

The aim of this requirement is to promote organic food production.

Key ratios for food

Since the food served at restaurants is the most important product, it is imperative that the environmental criteria include requirements on food. All stages of food production, from field to table, cause an environmental impact: production, transport, processing, storage and preparation.

To be able to set requirements of the food, these must relate to a uniform key ratio. Possible ratios include the number of foodstuffs the restaurant uses or the proportion of ingredients of the total turnover. The pilot restaurants were asked to comment which of the following alternatives regarding organic produce is best: a requirement on the percentage of turnover (in SEK/EUR) or an absolute requirement on the total number of items (product types). The restaurants have very different view on this issue.

Support for the two suggestions was roughly even. In Sweden in particular there was support for the percentage calculation, while in Finland the number requirement was favoured. One reason for this preference for the number of products is that the availability of organic produce is significantly lower in Finland than in Sweden. Comments from the pilot restaurants:

- “An item requirement is a good idea. The restaurant may use many organic products, but if these are cheap, the percentage requirement may not be fulfilled.”
- “The item requirement is better as this avoids the need to continually calculate what proportion of products is used and the percentage of organic products of the total. The percentages vary with supply and demand.”
- “Difficult, but we believe it’s easier to follow a % of the total purchase volume.”
- “% of total purchase volume, but possibly also a lowest number of items.”

Based on the comments from pilot restaurants, the proposed criterion is for a % of the total turnover. In countries with a limited supply of organic produce (Finland, Norway and Iceland), an alternative item requirement is proposed.

Alcoholic beverages may be included in the proportion of organic products. During development, it was discussed whether to award a point score for alcoholic beverages. This idea has been abandoned since not all restaurants serve alcohol and would therefore be discriminated by such a requirement. At this stage, Nordic Ecolabelling has therefore chosen to group all organic products together.

Organic foodstuffs

Organic farming does not use chemical pesticides, synthetic fertilisers or genetically modified organisms. An ecocycle and long-term sustainable production are the founding principles. The environmental gains of organic production include biodiversity and the exclusion of chemical biocides. Research shows that organic production in total has a more positive impact on the environment. The production of organic products encompasses all stages from field to end product.

All regulations regarding organic production are based on the principles laid down by the International Federation of Organic Agriculture (IFOAM). In the EU, legislation in force includes Council Regulation (EEC) No 2092/91 on organic production of agricultural products, which is supplemented by Council Regulation (EC) No 1804/1999 on livestock production. To market a product as organic, the product must be checked and certified by an approved certification body.

The EU’s organic label (ear of corn) can be used throughout the EU. The product’s ingredients, processing and packaging must be approved by an ecological control body in one of the Member States. Control is based on the EU regulations on organic production. The label requires that 95% of the agricultural ingredients are produced within the EU.

The most well-known ecolabel is the Finnish Luomu label (sun label), which is administered by the state authorities. Products are produced, packaged and labelled in Finland. Permission to use the label is controlled by the Finnish Food Safety Authority Evira. The Luomu label can be used for labelling and marketing organic products that are monitored in Finland. Organic products in Finland may also be labelled with voluntary ecolabels such as the ladybird label, Luomuleppis and Demeter. All organic products fulfil EU regulations.

In Finland, the food administration issues directives to institutional kitchens and restaurants regarding the use of organic produce. For a restaurant to market itself as organic or serving organic dishes, it must be associated to the monitoring system for organic foodstuffs. No Finish restaurant has yet qualified to carry the Luomu ecolabel. If a restaurant is affiliated to the Portaati Luomuun program and regularly uses organic produce, the restaurant may notify guests of this. Otherwise it is prohibited to notify of the organic ingredients used in Finish restaurants and institutional kitchens. Since the regulations controlling organic

produce vary between countries, requirement P1 points out that national regulations and legislation must be observed.

In Sweden, KRAV is the only body monitoring organic production. Following inspection, a product can be furnished with the KRAV label or the EU label for organic production. KRAV dominates the labelling of organic food in Sweden and is well recognised among consumers. The EU label is primarily found on organic cured/cooked meats in Sweden since, unlike KRAV, the use of nitrite is permitted. The Swedish Consumer Agency plans a review of the marketing of organic products based on Council Regulation (EEC) No 2092/91 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs.

The KRAV label is a registered trademark and may only be used by authorised users, i.e. those approved by KRAV. Restaurants and institutions who wish to apply for KRAV authorisation may submit an application to KRAV. To gain approval, institutional kitchens must serve a minimum of one KRAV meal (main course) each week that comprise 95-100% KRAV-labelled foodstuffs and condiments.

The availability of organic foodstuffs varies greatly between Nordic countries. In general, the supply in Sweden and Denmark is good, moderate in Norway and Finland, and poor in Iceland. There is no exact information on the availability for restaurants and institutional kitchens. The figures that are available, such as the total area of organic cultivation in each country, do not necessarily bare a direct relation to the availability for restaurants. Further, figures for the proportion of organic food sold in supermarkets give only a rough indication of the availability to restaurants since consumer packs are not necessarily suitable for large kitchens. Also, the degree of processing can also pose a problem. For example, restaurants often buy peeled potatoes but it can be difficult to source organic peeled potatoes in Finland. The location of the restaurant is also influential since it is significantly more difficult to find organic products in rural areas.

In Sweden, organic produce valued at SEK4 million is consumed each year, which accounts for roughly 2-3% of the total consumption of food. Sales of organic food (wholesale) are estimated to have increased 10% from 2001-2002. Imports make up about 20% of the total sales value. KRAV inspects roughly 3900 items (2003), of which half are recertified. The number of items has increased 18% since 2001 (3300 items). Milk products account for one third of the sales value. The next largest product group is vegetables, fruit and berries, with meat and cooked/cured meat coming in third place. Organic farmers forecast that the market will continue to grow but at a slower pace than previously. (KO PM 2005: 7)

Equivalent figures for sales and imports to Finland are not available. In 2003-2004, sales of organic food to consumers totalled EUR50 million, which is 0.7% of the total spent by households on food. The figure does not include alcohol or sales through restaurants. The largest product groups are organic cooking oil (6.2%), eggs (5.8%) and cereals (5.4%) Organic milk has the largest market share (2.5%). Carrots and onions are the most common organic vegetables. There is a wide range of organic produce in shops with the exception of meat and fish. The Luomu register contains 2500 product names and 473 businesses. There are no details of how total turnover has progressed, but the sharp increase experienced some years ago has now stagnated.

Debio is the Norwegian inspection and certification body for organic production, processing, sales and import in accordance with EU regulations. The term

“økologisk” (organic) is protected, and products can only be sold as organic if they are approved by Debio. The Norwegian government has set the goal that 15% of all food production and consumption shall be organic by the year 2015. In 2005, 3.5% of Norwegian farmland was organic.

Although sales of organic food have increased in Norway in recent years, in 2004 organic food accounted for only 0.8% of the total turnover in supermarkets according to a report by A C Nielsen on behalf of the Norwegian Agricultural Authority and Nordic Ecolabelling. The number of products has increased from 73 in 2000 to 193 in 2004, which makes up 3.5% of the total number of products on sale.

Tabell 2. Pilot restaurants' views on suitable limits for organic foodstuffs

Country	Current proportion, %	Proportion, items	Reasonable minimum limit
Finland	0-20 %	0-12	0-8 (50%*)
Norway	0.2-5 %	1-20	8-60 %
Sweden	0 – over 50%	0 – “many”	5-25 %

* together with local produce

To compensate for the limited availability of organic products in Finland, Norway and Iceland, the limit in the criteria is lower for these countries than for Sweden and Denmark.

P2 Local and regional foodstuffs and beverages

The aim of this requirement is to reduce the transport of foodstuffs and support rural communities. This should however not be at the detriment of increased energy consumption during production.

The use of locally produced food and local products reduces the environmental impact of transport by shortening journeys. The need for storage is also often reduced. Supporting the use of local produce also promotes a living rural community, reduces vulnerability in times of crisis and improves conditions for livestock by reducing distances travelled. Local food produce is considered trustworthy by the consumer.

One major advantage of local sales is that small-scale producers who may find it difficult to sell their produce can find a market and consumers who for various reasons are dissatisfied with the large-scale, globalised food system can find a marketplace that they trust.

The results of surveys give an divided picture of the environmental benefits of local production systems. For example, the energy required to transport produce is not necessarily lower than conventional systems, despite the shorter distances, since the vehicles used are often somewhat inefficient (Carlsson-Kanyama et al 2003, 2004). Other investigations show however that there are significant environmental gains and energy savings to be had from using locally produced food.

A Finnish survey that compares the energy consumption used for transport of local, regional and imported vegetables for school diners indicates that using local products can produce large environmental benefits. The energy consumption and emissions were only 5% compared to the present levels if the schools converted to using only local vegetables. If the vegetables were produced regionally (of

Finnish origin), the energy consumption and emissions were reduced 33%, and if all produce was imported the levels would increase to 280% of the initial consumption and emissions. Energy consumption and emissions from transporting local vegetables were 16% of the equivalent levels for regional products, and 1.5% for imported vegetables (Poikolainen 2002).

Another Finnish report claims that is justified to promote local food produce for both socio-economical and environmental reasons, though the benefits are relatively small in comparison society's total environmental impact and a region's total economy. Local food production can help to promote rural livelihood and biodiversity, such as through pastureland (Seppänen & al 2006).

Many of the pilot restaurants felt promoting local food to be good idea, but several pointed out the problems associated with complicated definitions and the limited range on offer (depending on the restaurants location). Further, there are seasonal influences: supplies in summer can be significantly better than in winter.

- “Yes, we use 60-70% local produce and we know for sure where food, berries and cordial come from and which methods have been to produce them.”
- “Requirements on local produce are problematic. To start with, how local? Secondly, the situation varies for Finnish restaurants in different areas. Say that local produce comes from within a radius of 100 km, Tampere restaurants have a significantly better location than those in Helsinki, where only potatoes and herbs in declining quantities are grown. Though of course, Helsinki has the advantage of being only 100 km from Estonia, which makes everything that comes from Tallinn local produce.”

Tabell 3. Pilot restaurants' views on suitable limits for local foodstuffs

Country	Current proportion, %	Reasonable minimum limit
Finland	0-70 %	0-50 %
Norway	15-60 %	25-60 %
Sweden	7-80 (100*) %	1-60 %

* for fish

The Swan criteria promote the restaurant's use of locally produced foodstuffs. The aim of the requirement is primarily to encourage low energy consumption during food transportation and to support sustainable development at a local and regional level.

Unfortunately, there is no well-established definition of the concept local produce. The majority view is that geographical proximity is a central factor. Important elements are that the production chain is short, that production and consumption occur in a limited area, and that the producer is known. One proposed definition of local food is: “the production of ingredients, processing, distribution and consumption integrated in a geographical area that is considered local” (LivsmedelsSverige). The EU environmental criteria for tourist accommodation services define local food as that is produced within a radius of 100 km.

Swan labelling proposes that food can be defined as local if the product's origin (farm), supply chain and transported distance (km) are known. Local products may be transported a maximum of 100 km from farm to restaurant. Regional products may be transported a maximum of 250 km from farm to restaurant.

The proportion of local and regional foodstuffs shall be documented by recording the name of the producer. If the product is processed, or if it is supplied through a wholesaler, the origin of the product must be known throughout the production

chain, from farm to restaurant. To facilitate the documentation of local and regional foodstuffs, a form is appended to the criteria document.

The score for local/regional products is slightly lower than for organic products. This is since the environmental benefits of local/regional products are not equally as unequivocal as for organic produce. The environmental benefit would be far clearer if requirements were also set on the method of transport, not simply the distance travelled. At this point in time, there is no suitable method to place requirements on the method of transport though the issue will be considered in future revisions.

Seasonal local/regional products

Many local foodstuffs are seasonal (see Glossary). The advantage of seasonal foodstuffs is that they are consumed when fresh and require little storage. By using more seasonal products, such as apples, root vegetables and potatoes, transport requirements can be reduced significantly.

Tabell 4. Example of seasonal foodstuffs

January - March	Freshly caught fish (e.g. pike), game as per hunting restrictions, root vegetables (e.g. carrots and swede)
April - June	Morel, rhubarb, nettles
July - September	New potatoes, lettuce, broccoli, etc. outdoor-grown vegetables, berries, fruit, mushrooms, crayfish
October - December	Fresh and dried mushrooms, game as per hunting restrictions, winter apples, cabbage, root vegetables

In some cases the use of local/regional produce can entail a significant environmental impact due to great energy consumption. This applies particularly to greenhouse vegetables grown during winter months. To be awarded a point, the local/regional foodstuffs must also be seasonal. For example, tomatoes grown in a greenhouse during the summer do not require additional energy and are therefore point scoring, while tomatoes grown in heated greenhouses during the winter consumer much energy and do score a point under this requirement. Greenhouse grown vegetables are awarded a point if the energy requirement is covered by renewable energy sources.

Organic vs. local/regional products

If a locally produced product is also organic, the product can be awarded points under both P1 and P2. The reason for this is that requirement P1 on organic foodstuffs covers the production method but does not concern the transported distance. Transport is the primary purpose of requirement P2 and promoting local/regional produce.

P3 Vegetarian food

Food can have a large impact on the environment, depending on the method of cultivation, transport chain, degree of processing and packaging. Vegetarian food requires far less energy to produce the raw materials than meat-based produce. For example, roughly 10 times the energy is required to produce one kg of

protein from meat than to produce the same amount of protein from vegetables such as beans. Accordingly, a wide selection of vegetarian dishes gains the restaurant points.

P4 Fairtrade products (Rättvisemärkt/Max Havellar)

Fairtrade is an ethical and social labelling that focuses on human rights. Using Fairtrade produces contributes to a better and more liberated future for children and adults alike in poor areas of the world. Fairtrade guarantees that the product is produced under "fair" conditions and offers the consumer the chance to contribute to positive development in poor countries. Fairtrade has sister organisations in some twenty countries in Europe, North America, Australia/New Zealand and Japan. These bodies collaborate within Fairtrade Labelling Organizations International (FLO), which is the worldwide Fairtrade Standard setting and certification organisation.

The availability of Fairtrade products varies between Nordic countries. In Finland, the range has increased significantly in recent years. Common Fairtrade products are coffee, tea, chocolate, bananas, oranges and breakfast cereals. There are also a number of Fairtrade alcoholic beverages.

Requirements not set on foodstuffs:

Health aspects

Discussions were held during criteria as to the possibility to set requirements on the food's health aspects. For example, the criteria could contain requirements on calorie content or how nutritional recommendations are followed in menu planning. At this point in time, no specific requirements have been included. The requirement on organic food in particular favours health aspects, for example since organic food is guaranteed pesticide free.

Social responsibility and ethical aspects

Criteria development included discussions on the possibility to include ethical requirements. These could, for example, cover animal production, such as prohibiting foie gras or eggs from battery chickens. For the time being, no requirements are set regarding social responsibility. However the Fairtrade requirement and to some extent that on local/regional products support sustainable development and social responsibility. The use of organic products also promotes sound animal husbandry.

Section 3 Chemicals products and materials

O4 Chemical products for dishwashing and cleaning

The aim of this requirement is to promote the use of eco-friendly chemical products in restaurants and institutional kitchens. Experience from the ecolabelling of hotels show that the greatest emissions of chemical products come from dishwashers. In general, roughly 80% of emissions come from the dishwasher, though figures over 90% are not uncommon in hotels and large restaurants. The dishwasher's use of chemical products can be optimised, such as through automatic dispensing, which also produces economic advantages. Regular servicing and the use of eco-friendly chemical products also reduce environmental impact.

A Swan-labelled restaurant must where possible use Swan-labelled chemical products for dishwashing and cleaning. If such a product is not available, a chemical may be used if the manufacturer or supplier can certify that the product is not environmentally hazardous and does not contain the following listed substances.

APEO, ADP, LAS

Alkylphenoethoxylates (APEO), alkylphenol derivatives (APD) and linear alkylbenzene sulphonates (LAS) must not be included in products since they and/or their decomposition products have a negative impact on the environment. Nonylphenoethoxylates that decompose into nonylphenol are suspected to cause hormonal imbalance. The inclusion of these substances is therefore prohibited.

Surfactants (biodegradability)

Ready biodegradability is a very important characteristic of organic substances. Persistent substances accumulate in the environment. These may present a present and future risk even though they do not cause acute toxicity. Knowledge about the long-term environmental effects of persistent substances is often inadequate. Ready biodegradability under aerobic and anaerobic conditions is therefore of great environmental significance.

"Anaerobic biodegradability of surfactants", a report from DHI Water & Environment (2002), highlights the importance of the anaerobic biodegradability of surfactants. Surfactants that are not biodegradable in an anaerobic environment can accumulate in sewage sludge, land fertilised with sewage sludge, and lake and waterway sediments. This will have a negative effect on organisms. It is required here that all surfactants be readily biodegradable and anaerobically biodegradable.

05 Reactive chlorine compounds

Chlorine compounds can be corrosive, such as hypochlorite, or environmentally hazardous, such as dichloroisocyanurates. Sodium hypochlorite is harmful on skin contact and if swallowed, and toxic to aquatic organisms. Chemical compounds that contain active chlorine can at high temperatures and high levels of soiling form dangerous organic chlorine compounds. Organic chlorine compounds can also form in the sewage system. These may be toxic, persistent and bioaccumulable. Alternative, less environmentally dangerous chemical products are available. The use of active chlorine compounds is forbidden in Swan-labelled restaurants. An exception is made if regulator requirements stipulate the use of such products for hygiene reasons.

06 Kitchen roll, kitchen paper and toilet tissue

Restaurants use large quantities of tissue paper. Ecolabelled tissue products ensure a low environmental impact during production, from forest to end product. The availability of ecolabelled tissue is good throughout the Nordic region. Accordingly the minimum limit is high (90%). Where availability is limited, such as on Iceland, exemptions are given if no ecolabelled products are available.

07 Disposable items

The purpose of this requirement is to reduce the use of consumables with a short turnover rate, so as to save resources. Disposable products can often be seen as "unnecessary", such as paper plates, plastic glasses and portion-sized mustard and ketchup. The use of active such items is prohibited in Swan-labelled restaurants.

To avoid encroaching the restaurants activities, exceptions can be made in specific cases. Many disposable items are not unnecessary, such as for hygiene reasons during transport, but these should be as environmentally friendly as possible. In special cases, such as if the restaurant has an exceptionally large number of guests, disposable items are permitted.

Selling prepacked products in disposable packaging, such as ice cream and chocolate, is permitted.

It is difficult to ban the use of disposable items for catering and take-away restaurants without totally excluding this type of restaurant service. A typical fast-food restaurant can serve thousands of guests every day, which would require extensive dishwashing facilities and large numbers of staff. Dishes used to serve catering food are seldom returned to the restaurant which makes it difficult to use anything but disposable items. The Swan can achieve greater environmental benefit by including these types of services and instead placing strict environmental requirements on the materials that are used. Subsequently, disposable items must comprise at least 2/3 renewable raw materials, i.e. must not be made from fossil oils. If ecolabelled items are available, these must be used. The restaurant must also draw up an annual plan to reduce the use of disposable items.

P5 Actions to reduce consumption of chemical products

This requirement collects actions that aim to reduce the use of chemical products in the restaurant. Points are awarded for correct dosage and the use of concentrated products (reducing the unnecessary transport of water). Other chemical-saving measures at the restaurant can also score points if it can be clearly demonstrated that chemical use has been reduced.

P6 Actions to reduce consumption of materials

This requirement covers actions that save the consumption of materials in the restaurant. Points are awarded if beverages served in the restaurant are transported in reusable packaging.

The restaurant can save on tissue by using automatic dispensers that give one open sheet at a time. According to one tissue manufacturer, such devices can save up to 20%. If the dispenser dispenses folded paper, users often take several towels unnecessarily.

Fabric hand towel rolls that can be laundered save on materials since these can be washed many times. If the hand towel rolls are also ecolabelled, this is awarded with a point under P7. Other chemical material-saving measures at the restaurant can also score points if it can be clearly demonstrated that material use has been reduced.

P7 Purchase of ecolabelled products and services

This requirement includes actions that aim to influence the restaurant to purchase ecolabelled consumables and services. Ecolabelling is a simple way of demonstrating that the product is environmentally suitable. Equivalent scores are awarded for example in the ecolabelling criteria for printing houses (v.4). A survey of the environmental benefits relating to printing houses demonstrates that this requirement encourages the use of ecolabelled products and results in clear environmental gains. At management level, the requirement leads to greater interest in the use of ecolabelled products (Palab 2006).

This requirement does not cover durable goods, which require more long-term planning and have a longer service life. Durable goods are awarded points under requirement P16 but not here, since such an opportunity to score points could lead to the unnecessary replacement of fully functional furniture and equipment.

The availability of ecolabelled products and services on Iceland is more limited than in the rest of the Nordic region. Accordingly, the point score required of restaurants on Iceland is lower than for restaurants in other Nordic countries.

Section 5 Energy and water

Energy consumption in kitchens is closely linked to food preparation. When many kitchen appliances are being used, energy consumption is also high.

According to a Finnish study, energy consumption per serving varies between 0.26 to 2.36 kWh/serving, including the energy for refrigeration/freezing and dishwashing (TTS 1998). Energy consumption per serving is lower in large kitchens than in small kitchens. The greatest energy consumption is seen in restaurants that keep appliances on all day. The energy consumption in a school canteen was half that of a restaurant. Industrial kitchens using a cook-and-chill method had the lowest energy consumption. Levels of waste are however significant in this type of kitchen since food may only be reheated once.

Energy consumption can be roughly divided into three categories: refrigeration/freezing, preparation and dishwashing. On average, preparation accounted for 15-49% of the electricity consumption, dishwashing 16-47% and refrigeration/freezing 12-60%. The variation is due to the type of kitchen. In a restaurant, preparation requires the most energy (49%) followed by refrigeration/freezing (37%) and dishwashing (14%). In a school canteen that reheats food, refrigeration/freezing is the most energy intensive (56%) followed by dishwashing (29%) and preparation (15%). In a hospital kitchen, dishwashing uses the most energy (47%). The proportion of energy required for refrigeration/freezing was greater in small kitchens than in large kitchens.

Energy consumption from food preparation depended largely on human factors: method of preparation; type of cookware; timing; selection of program, time and temperature; unnecessary preheating; and regular cleaning and appliance service. Complicated dishes comprising many components and an extensive menu increase the energy requirement since the use of a larger number of appliances is required.

The energy consumption of refrigeration/freezing depended strongly on the number of appliances, their size and location, how full they are, temperature settings and control, their working condition and how they are used.

The energy consumption dishwashing varied depending on the size and design of the facilities, staff procedures and appliance type. The most significant factors regarding procedures are the temperature and time used for rinsing dishes prior to washing, and unnecessary preheating. Dishwashers that are demand controlled significantly reduce electricity consumption (-40%) and water consumption (-70%). Rinsing by hand under running water consumes considerably more water than using a shower nozzle.

To summarise, staff procedures play a central roll in the energy consumption of restaurants and institutional kitchens. Staff training to ensure appliances are used correctly can save 10-60% energy.

Limit values for energy

Criteria development included discussions on the possibility to include absolute requirements on energy. One possibility is to set a limit for the energy consumed in preparing one serving of food in the restaurant. There is however too little data in this area, and the statistics that exist show that energy consumption per serving depends largely on the type of restaurant and type of food served (see above). Another option is to set energy limits based on the size (area) of the restaurant, as in the hotel requirements. The problem is that the area of a restaurant may not reflect its environmental performance. Catering firms, for example, may not even have a dining area. The criteria therefore do not include a limit value for energy. But since energy is such a central environmental aspect, requirements are set in other ways. In future criteria versions, the energy requirements will be reviewed and tightened.

O8 Electricity and gas metering

One of the most important actions to reduce a restaurant's environmental impact is to reduce the electricity consumption of the kitchen. This can be difficult if there is no knowledge of the actual electricity consumption. The criteria therefore set the mandatory requirement of an electricity meter. Electricity consumption must be monitored continually so that actions can be taken as quickly as possible if electricity consumption is excessive. An appendix is included with the criteria for monitoring electricity consumption and recording meter readings. Reading the meter once a month is ideal, but since this can be relatively labour intensive the requirement is set of four meter readings per year. The electricity meter must be installed so that it measures the kitchen's electricity consumption though other areas of the premises may also be included.

Many restaurants do not presently have an electricity meter. Installing a meter can be cost effective since it helps cut electricity bills. It may be difficult to install an electricity meter in some restaurants due to the design of the premises. One large pilot restaurant that shares premises with many other functions claims that it would cost several thousand euro to install an electricity meter. To require the installation of a meter in such situations would be unreasonable. In such cases, the restaurant can instead perform an energy assessment and establish a plan to reduce energy consumption that contains clear goals and actions.

Many restaurants use gas cookers. Accordingly, monitoring gas consumption is important. A restaurant that uses gas solely for grilling, for example, and purchases bottled gas does not need to install a meter on the bottle.

O9 Refrigerants

Refrigerators and freezers present a large potential environmental impact, depending on the refrigerant that is used. CFC refrigerants are prohibited from use in Swan-labelled restaurants. The refrigerant used in refrigerators and freezers must have little effect on the ozone layer. Such refrigerants include HFC, propane, butane, ammoniac and carbon dioxide. The use of HCFC is permitted since it is so common, such as in older icemakers. However, the use of HCFC is not awarded points. Nowadays, most refrigerators and freezers are filled with HFC, which is a better alternative than HCFC despite HFC also contributing to the greenhouse effect.

So-called natural refrigerants such as methane, propane, butane, NH₃ and CO₂ have relatively little impact on the environment in comparison to CFC, HCFC and HFC. The use of natural refrigerants is therefore awarded 2 points. Since the process of replacing refrigeration units and refrigerants with types that have less impact on the environment is lengthy, very few restaurants have units only filled with natural refrigerants. The limit for a maximum score is therefore set to 50% natural refrigerants. One point is awarded if the restaurant uses at least 90% HFC units since this is better than HCFC and CFC.

P8 Water metering

The monitoring of water consumption can help reduce the restaurant's environmental impact, in the same way as electricity metering. There is also a strong correlation between water consumption and energy consumption since warm water requires heating. The regular reading of a water meter can detect increased consumption, such as due to leaking taps, so that such problems are quickly fixed. Reading the meter once a month is ideal, but since this can be relatively labour intensive the requirement is set of four meter readings per year.

In the same way as for electricity metering, it may be difficult to install a water meter in some restaurants. The requirement is therefore included as a point score requirement.

P9 Energy-saving actions

P10 Water-saving actions

Saving energy and water can produce considerable environmental benefits and cut costs for the restaurant. Restaurants with a sound environmental policy can score highly on this requirement. Energy and water-saving measures at the restaurant other than those mentioned can also score points if it can be clearly demonstrated that energy/water use has been reduced.

The following table lists a number of actions that have varying effects on the restaurant's energy use.

Tabell 5. Energy-saving measures for a restaurant

	Action	Result
Preparation	Use insulated pans with lids	Reduces waste heat in the kitchen
	Avoid cast iron pots and pans	Shortens preheating time
	Use an induction hob	Uses 20% less electricity than ceramic hobs and 25% less electricity than stoves with conventional electric plates
	Use ovens with rapid preheating and automatic temperature/humidity control	Saves energy
	Time control and thermometers in appliances	Ensures food is not overcooked
Dishwashing	Insulated dishwasher	Prevents heat waste
	Connect domestic dishwashers to the hot water supply	Saves up to 43% electricity and shortens cycles by 10-20 minutes. Performance is not affected (TTS 2003) NB! Assumes the hot water supply is not too hot.
Refrigeration/ freezing	Position refrigerators/freezers away from hot appliances	Saves energy
	Cold store with automatic doors	Reduces the risk of doors standing open.
	Units connected to a central cooling unit	Eliminates noise and heat from the kitchen.

	Ambient temperature for domestic refrigerators/freezers is lower than +16°C and ventilation adequate	Electricity consumption can be almost halved if the temperature is lowered from +25°C to +16°C. Insufficient ventilation can increase consumption by 60%.
Planning, training and maintenance	Automation of kitchen processes: e.g. appliances with automatic cleaning/maintenance	E.g. automation can reduce dishwasher energy consumption by 40%
	Avoid unnecessary oven preheating	Saves energy
	Staff training so that appliances are used efficiently and in a versatile manner	Saves energy
	Process planning and scheduling of processes	Time planning preparation can save 20-40% of the appliances maximum consumption.

Sources: TTS 2001, 2003, 2004

P11 Renewable energy

The use of renewable energy sources is awarded points. Renewable electricity and heat come from renewable energy sources such as wind power, solar energy, hydroelectric production, biofuel and biogas. Full points are awarded for the use of "green electricity" (ecolabelled electricity).

P12 Refrigerants

See discussion under O9.

Section 5 Waste and transport

The waste requirements have two primary aims: to reduce the total quantity of waste; and to ensure the sorting at source of waste into as pure fractions as possible and thereby enable effective recycling, clean energy recovery and reuse. Lowering levels of waste also lowers costs.

Waste minimisation starts at the purchase stage with reducing packaging and disposable items, as well as purchasing quality products that have a longer service life. The minimisation of waste is in many respects also controlled under **Section 3 Chemical products and materials**. No limits are set for quantities of waste in this criteria document since it is often difficult to measure various fractions. Different restaurants produce different types and quantities of waste. Waste food in particular can vary significantly depending on the menu and method of preparation.

O10 Waste sorting

The careful sorting of waste helps to illuminate the problem of waste in a restaurant. Sorting also helps to ensure that waste containers are the correct size to avoid unnecessary transport, and in many cases unnecessarily high fees for waste. The criteria require that restaurants sort waste into 4 fractions. However, if local authority regulations require a greater number of fractions, these take precedence.

O11 Transport assessment

Most restaurants impact on the environment through the transport of goods, waste, etc. to and from the restaurant. The transport need of catering services is increased since they deliver the food. Since transport is a significant environmental aspect it is important to reduce its extent.

To reduce the environmental impact caused by catering firms and other restaurants with many own journeys, an assessment of transport is a mandatory requirement. This assessment shall be conducted in an equivalent way to the energy and water assessments, with regular monitoring of the distances driven and fuel consumption. An appendix to the criteria document is of assistance for this follow-up. A monthly follow-up is ideal, but since this can be relatively labour intensive the requirement is set of four occasions per year.

This mandatory requirement for transport assessment may be unreasonably expensive for a restaurant that only performs occasional deliveries. For such establishments, the requirement is instead point scoring (P15). The breakpoint for the mandatory requirement is if 30% of the restaurant's turnover originates from sales that require delivery.

P13 Further waste sorting

Restaurants can be awarded further points if waste is sorted into more than four fractions.

P14 Waste reduction

A restaurant can reduce the amount of waste in various ways. Actions that reduce quantities of waste score points. Following up the quantities of waste that are produced scores the highest since this helps focus on waste issues and locate the source of large waste quantities. Recycling waste also scores points, such as if waste food is used as animal feed or organic waste is composted. However, it is vital that legislation in force is followed, which is pointed out in the requirement.

P15 Eco-friendly transport

All restaurants can gain points from this requirement, even if they perform a large number of deliveries. Transport to and from a restaurant is a major environmental aspect. An assessment of transport methods and a clear plan containing goals and actions to reduce the necessary transport can help find methods that reduce environmental impact (see also requirement O11).

The restaurant can also take other actions to make transport eco-friendly. The table that follows gives examples of how the restaurant can reduce the environmental impact of transport. Actions that reduce emissions include reducing the total transport requirement, ensuring vehicles are filled on all journeys, combining journeys, and route planning. The type of fuel that the vehicle uses and how fuel efficient it is are also significant. To be awarded points, the restaurant must be able to display documents that prove that the transport requirement or fuel consumption has been reduced.

Tabell 6. Example of actions for making transport more eco-friendly

Action	Result
Route planning of own deliveries	Cuts unnecessary journeys, saves fuel
Combined deliveries	Reduces the number of journeys to/from the restaurant
Ecodriving training for drivers	Improves fuel economy
Fuel-efficient vehicle	Improves fuel economy
Renewable fuel	Reduces use of fossil fuels
Hybrid vehicles, ethanol vehicles, etc.	Reduces use of fossil fuels
Regular vehicle servicing	Reduces fuel consumption and emissions, improves service life

Section 6 Environmental management

Environmental management is an important element of all ecolabelling criteria for services. The purpose of the environmental management requirements is to ensure that Swan requirements are observed, that functions and responsibility are clearly defined, and to lead to continual improvement. If the restaurant has a certified environmental management system (ISO 14 001 or EMAS) it is only necessary to submit certification from an accredited auditor that the requirements are implemented at the restaurant.

The environmental management requirements are divided into mandatory requirements, which must be fulfilled, and point score requirements where the restaurant can choose which environmental improvements to make. This division is made so that different types of restaurant are able to establish an environmental management program that best suits that particular restaurant.

The pilot restaurants consider that the environmental management requirement is good and that the division into mandatory and point score requirements is both justified and advantageous. The pilots feel that a suitable limit for this requirement is between 40-90% of the maximum total (on average 55%).

O12 Organisation and responsibility

The appointment of individuals responsible for environmental issues regarding key functions is of great importance for environmental management.

O13 Legislation and regulatory requirements

This requirement is included in most ecolabelling criteria. The restaurant criteria also emphasise the importance of the restaurant having a well-functioning self-inspection system that complies with regulatory requirements. The restaurant must not have any outstanding shortfalls identified by inspection authorities that are not remedied.

O14 Controlling documents

This requirement aims to ensure a better overview of the documents that are of significance for ecolabelling. These documents are checked by Swan ecolabelling on inspection visits.

O15 Handling of chemical products

This requirement aims to provide an overview of all chemical products and how these are handled in the restaurant. These documents are checked by Swan ecolabelling on inspection visits.

O16 Information about the Swan for staff

This requirement aims to ensure that all staff working at a Swan-labelled restaurant are acquainted with Swan labelling. Personnel must be aware of the environmental impact their work can cause and the environmental benefits they themselves and Swan-labelling can achieve.

O17 Customer information

The Swan aims to contribute to reducing the environmental impact of consumption. It is therefore important that restaurants clearly advertise the Swan label so that customers have the choice of an ecofriendly alternative.

O18 No-smoking dining area

To ensure a better indoor environment, smoking in the dining area is prohibited. In Norway and Sweden, a general ban on smoking has already been introduced, and it is likely that this ban will in some form be implemented in the other Nordic countries.

O19 Annual follow-up

The purpose of the annual follow-up is to document that the restaurant will continue to fulfil Swan requirements. In addition to the scrutiny of the submitted written reports, the Swan also performs on-site inspections.

P16 Action plan for continual environmental improvements

The requirement is point score requirement. The restaurant can choose which areas this action plan shall cover. The plan can include the following impacting functions: serving of food, energy/water, chemical products, materials, waste management and transport. An action plan shall be established for the areas that are covered. This shall include clear measurable goals that produce concrete environmental benefits. The actions shall be well-founded and designed to fulfil the goals. Dates for the fulfilment of the goals must be specified. To ensure continual improvement, the action plan must be updated annually.

To make it easier for the restaurant to create an action plan, the criteria document includes an appending template. Examples of goals and actions are also given. These are however only examples and the restaurant should select goals and actions that are most appropriate for that specific restaurant.

P17 Training

In addition to the mandatory requirement O16, this point score requirement is included for restaurants that provide additional training related to environmental issues. The training may be attended by members of staff but also the restaurant's contractors and suppliers.

P18 Customer awareness

The restaurant can gain points if it contributes to sustainable development by also providing customers with information about environmental issues. "Green days" and similar activities that make the customer more environmentally aware are also awarded points.

P19 List of excluded foodstuffs

This point score requirement supplements the mandatory requirement O3. Swan requirements stipulate that GMO products and tiger prawns may not be served (these products do not score here). There are many other products that in some way are detrimental to the environment. It is not currently possible for the Swan to establish a complete list of these. The criteria therefore allow restaurants to determine themselves if they wish to phase out certain foodstuffs.

Comments from the pilot restaurants included:

- "An up-to-date list should be on constant display for customers and staff."
- "Tiger prawns, foie gras due to force feeding, some types of fish that are overfished, and Iranian caviar due to overexploitation."
- "We do not feel that it is necessary for us to compile a special list since this has already been taken into regard during meal planning, which emphasises the use of local produce."

See also under requirement O3 for further justification.

Section 7 Summary of points

This section contains a summary of the available points. The greatest number of points are awarded in sections Food and Energy and water, which have been judge to be the areas of a restaurant that cause the most environmental impact. The principle is that a maximum number of points can be awarded in each section. And to be Swan labelled, a restaurant must achieve at least 60% of the maximum score in each section. The point scores have been established in consultation with the pilot restaurants.

Since the situation on Iceland is very different from the rest of the Nordic region, a lower points score is permitted. This applies to the limits for Chemical Products and Materials, Energy and Water, and Waste and Transport.

5 New criteria

Requirements that were not included in the first version of the restaurant criteria but may be included in future versions.

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7 Glossary

Co-ordinated transport	Goods from several suppliers are delivered to the restaurant using the same vehicle.
Cleaning	Cleaning refers to the regular cleaning of surfaces on equipment, floors and walls. Special cleaning tasks, such as cleaning ovens and windows, are not included.
Concentrated product	Product containing less than 40% water. Applies to chemical products.
Ecodriving	Training course in fuel-efficient driving, see www.ecodriving.se
Ecolabelled product	A product labelled with the Swan, EU Flower or Good Environmental Choice label, if nothing else is specified.
Fairtrade	Fairtrade has equivalents in Swedish "Rättvisemärkt" and Norwegian/Danish "Max Havelaar". Fairtrade is an ethical and social labelling that focuses on human rights. See also www.fairtrade.net/
GMO	Abbreviation for genetically modified organism. Plants, animals and bacteria that have been genetically modified are known as GMOs.
Green electricity	Electricity that is ecolabelled in accordance with an independent, life-cycled-based ecolabelling system (e.g. Norppa or Good Environmental Choice).
Local foodstuffs	Foodstuffs for which the producer is known and production and consumption occur in a limited geographical area. Local foodstuffs include game and wild-caught fish. Swan labelling approves food as local if the product's origin (farm), supply chain and transported distance (km) are known. Local products may be transported a maximum of 100 km from farm to restaurant.
Main ingredient	Main ingredients include ingredients such as potatoes, pasta, meat and fish. Herbs, spices and other seasonings are not main ingredients.
Max Havelaar	See Fairtrade
Organic foodstuff	Organic foodstuff refers to food and/or beverages that are labelled with the KRAV, Finnfood LUOMU, Debio, Statskontrollerat ekologiskt (Ø-märket), Tún-lífrænt or other IFOAM-accredited ecolabel, if nothing else is specified.
Portaat Luomuun	"Organic, step by step" is a Finnish program for professional kitchens that aims to raise the range of organic food offered. The program provides progressive guidelines starting with the use of a few organic ingredients to organic dishes and ultimately full organic assessment. Participating kitchens may notify customer that the kitchen uses organic ingredients. They also receive a diploma which clearly displays how far the kitchen has progressed in the programme. Finnfood Luomu and Ekokeittiökeskus are responsible for the programme.
Prepared dish	Prepared dish refers to a cooked or prepared hot or cold dish.
Raw material	Raw material refers to a foodstuff that on delivery to the restaurant is not cooked, fried or prepared in any other way.
Refrigerant	Refrigerants are used in refrigerators, freezers and cold stores. The most hazardous refrigerants, such as CFCs (Freon) deplete the ozone layer that surrounds the earth and protects it from the sun's harmful UV radiation. The most hazardous CFCs have been replaced by less hazardous HCFC, which is not as harmful to the ozone layer, and HFC, which does not affect the ozone layer but is a greenhouse gas. Natural refrigerants, such as methane, propane, carbon dioxide (CO ₂) and ammoniac (NH ₃), are the best environmental alternatives.

	<table border="1"> <thead> <tr> <th>Refrigerant</th> <th>Example</th> </tr> </thead> <tbody> <tr> <td>CFC</td> <td>R12, R500, R502</td> </tr> <tr> <td>HCFC</td> <td>R22, R401, R402</td> </tr> <tr> <td>HFC</td> <td>R134, R404, R407</td> </tr> <tr> <td>CO2 (carbon dioxide)</td> <td>R744</td> </tr> </tbody> </table>	Refrigerant	Example	CFC	R12, R500, R502	HCFC	R22, R401, R402	HFC	R134, R404, R407	CO2 (carbon dioxide)	R744
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Regional foodstuffs	Swan labelling approves food as regional if the product's origin (farm), supply chain and transported distance (km) are known. Regional products may be transported a maximum of 250 km from farm to restaurant.										
Rejäl handel	See Fairtrade										
Renewable energy	Renewable energy is electricity or heat that is produced from a renewable energy source: wind power, solar energy, geothermal energy, wave and tidal energy, hydro-electric power, biofuel, landfill gas, gas from sewage works and biogas. Biofuel is the biodegradable fraction of products, waste and residual products from agriculture (arable and livestock), forestry and similar industries, as well as the biodegradable fraction from industrial and municipal waste. Nuclear energy is not considered a renewable energy source. Peat is not a biofuel.										
Renewable raw material	Renewable raw material refers to organic material produced from non-fossil raw materials. A natural ecocycle shall ensure there is a constant net gain to secure continued availability within a foreseeable future.										
Rättvisemärkt	See Fairtrade										
Seasonal foodstuffs	Food production that follows a natural cycle and is governed by the seasons. This means that fresh produce is more readily available at certain times of the year. Fresh food is seldom treated with additives and avoids the need for storage.										
Tiger prawns	Tropical shrimps that in shops and on restaurant menus are often called tiger prawns, king prawns, Thai prawns, jumbo shrimps or scampi. All these prawns are included by the term "tiger prawn". These shrimps are significantly larger than prawns from North Atlantic waters, and can grow to over 30 cm long.										