

# **Quality management systems as a solution for the control of spread of alien species**

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## **ABSTRACT**

One of the lot of risks in the plant production and international plant trading businesses is the spread of alien species. Businesses know that they not only sell products, but also their business image. The spread of alien species is also a image problem for a companies and traders. Two non governmental systems exist worldwide which were used by businesses and which are implemented for sustainable development based on quality management systems and/or different criteria systems. These systems must be use in future against the spread of alien species because this is one part of sustainability in quality production. And quality production is primarily the responsibility of the business.

## **INTRODUCTION**

The spread of alien species is due mainly to increasing international trade. International trade therefore has a large part of the responsibility for the protection of food, the environment, and social safety. Trade and production have created private international quality management and environmental criteria systems for their quality controls. Private certifiers already visit the businesses to inspect these. Private systems therefore exist. It should therefore be possible without involving too much effort to clearly reduce the problematical spreading of alien species.

## **FUTURE-ORIENTED BUSINESSES AND SUSTAINABLE PRODUCTION**

Economical performance assessment based on economically relevant parameters like cost-benefit calculations or financial statements is a matter of course in all areas of the economy and in all businesses. For many businesses, this knowledge is no longer sufficient to manage a business successfully in the long term.

Future-oriented businesses want to know:

- How sustainable is my production, provision of services and product?
- How can I evaluate sustainable activities?
- How credible is an evaluation of sustainability?

Can sustainability be communicated in a credible manner?

Why do businesses want to know how sustainable their businesses are?

- For image reasons

Businesses know that they not only sell products, but also their business image. It takes a long time to build up a positive image, and it is extremely costly. Credibility and

subsequently the business's image can be destroyed in next to no time by the Internet. Image is a precious part of a business's capital. The spread of alien species is also a image problem for a company.

- To mitigate risks

One of the lot of risks is the spread of alien species.

## **NON-GOVERNMENTAL SYSTEMS AND PHYTOPATHOLOGICAL RISKS**

Ecological sustainability includes the minimisation of phytopathological risks

Two different systems exist world-wide which were used by businesses and which are implemented for sustainable development (Meier, 2002 a). In the last 10 years, agricultural businesses have used.

- non-governmental quality management and
- non-governmental criteria systems.

The focus is on product quality and the quality of production (Meier & Feldmann). These systems must be used in future because the spread of alien species is one part of sustainability in quality production. And quality production is primarily the responsibility of the business.

## **INTERNATIONAL MANAGEMENT SYSTEMS**

In order to document and communicate the ecological achievements of a business, instruments such as environmental management systems are used. Many businesses work with environmental management systems, for example ISO 14001 (1996). The EC-Eco-Audit Ordinance or European Management Audit Scheme (EMAS II) (2001) has the same aim. These systems make it is easy to include a pest and disease assessment for export businesses. Management systems such as ISO 14001 have the advantage that they can be implemented world-wide and throughout different sectors. Not only do many agricultural businesses use ISO 14001 but also the packaging industry. The spread of alien species also effects all sectors. An existing, international system created by businesses can thus be used for preventing the spread of alien species.

However, ISO 14001 is different to EMAS II. The main differences between ISO 14001 and EMAS II are that ISO allows free agreements concerning the world economy, a certificate is issued and ISO 14001 is compatible with ISO 9000.

Compared to ISO 14001, EMAS II represents a legal procedure in the EU. An environmental declaration must be published and EMAS supplies a logo for advertising purposes. Furthermore, environmental achievements are measured directly.

The aims of ISO 14001 and EMAS II are the continual improvement of environmental protection. Environmental protection as a management task. The avoidance of environmental pollution however belongs to the aims of environmental protection. Yet plant protection products can stress the environment. Therefore, the plants and alien species must be observed and/or controlled in their home environment, in the agricultural business. Observance and control is a task for business management.

ISO 14001	EMAS II
<ul style="list-style-type: none"> <li>• Free stipulation of the world economy</li> <li>• Issuance of a certificate</li> <li>• Comparability with ISO 9000</li> </ul>	<ul style="list-style-type: none"> <li>• EMAS LOGO for advertising</li> <li>• Publication of an environmental declaration</li> <li>• Legal procedure of EU</li> <li>• Assessment of environmental achievement</li> </ul>

## INTERNATIONALLY IMPORTANT SYSTEMS FOR AGRICULTURAL ON THE BASIS OF CRITERIA

The most important criteria in this systems are the criteria of plant protection. But you can not find any point about alien species. In this field it is important to complete the critiria lists of following systems:

International environmental criteria systems in agriculture
<ul style="list-style-type: none"> <li>• Euro-Retailer Produce Working Group of Good Agricultural Practice (EUREPGAP)</li> <li>• Flower Label Program (FLP)</li> <li>• Milieu Project Sierteelt (MPS)</li> <li>• Forest Stewardship Council (FSC)</li> <li>• Pan European Forest Certificate (PEFC)</li> <li>• Rainforest Alliance (RA)</li> <li>• Comité de Liaison Europe-Afrique Caraibes Pacifique (COLEACP)</li> </ul>

The **Euro-Retailer Produce Working Group of Good Agricultural Practice (EUREP GAP)** is a co-operation of numerous leading retail enterprises in Europe. EUREP trading concerns will make fruit, vegetable and flower producers discharge their duties which means, to only produce goods in line with pre-determined consumer protection, environmental protection and social criteria, and have these conditions of production checked by an independent private enterprise. The producers have to be oriented according to EUREPGAP criteria. This aims at getting the entire food chain from agricultural production to the consumer under an independent control (Meier, 2002 b). In responding to the demands of consumers, retailers and their global suppliers have EUREP created and implemented a series of sector specific farm certification standards. The aim is to ensure integrity, transparency and harmonisation of global agricultural standards. This includes the requirements for safe food that is produced respecting worker health, safety and welfare, environmental and animal welfare issues.

The **Flower Label Program (FLP)** is the result of international discussions about environmentally and socially compatible flower production. FLP is based on the international ‘Code of Conduct for Socially and Environmentally Compatible Production of Cut Flowers’, which lays down certain minimum standards. The code of conduct is supervised by the FLP Directorate which is shared in parity by business representatives (producers and distributors), trade unions and non-governmental organisations.

The **Milieu Project Sierteelt** (MPS) is an environment program for ornamental plants. MPS was set up as a foundation in 1995 by Dutch ornamental plant merchants and aims at minimising environmental pollution in the ornamental plant nurseries involved. MPS is a system with controllable environmental criteria, basing on voluntary registration and environmental testing. Social criteria were introduced additionally on the basis of the requirements laid down in SA 8000. This program includes not only horticultural enterprises but also retailers.

The **Forest Stewardship Council** (FSC) (2000) was set up in Toronto in 1993 by environmental organisations, representatives of ethnic groups concerned by large-scale timber production, and by representatives of forest industries. The FSC wants to achieve, on a global scale, forest management which is at the same time economically buoyant and compatible with nature and the human society. The organisation has created a quality seal for wood which is recognised in the world market. FSC certification is guided by ten principles with 56 criteria.

The **Pan European Forest Certificate** (PEFC). The PEFC Council (Programme for the Endorsement of Forest Certification schemes) is an independent, non-profit, non-governmental organisation, founded in 1999 which promotes sustainably managed forests through independent third party certification. The PEFC provides an assurance mechanism to purchasers of wood and paper products that they are promoting the sustainable management of forests. The PEFC certificate is only awarded to forest companies undertaking to guidelines of sustainable forest management and allow inspections for fulfilment of environmental and social criteria.

PEFC has in its membership 30 independent national forest certification schemes of which 17 to date have been through a rigorous assessment process involving public consultation and the use of independent consultants to provide the assessments on which mutual recognition decisions are taken by the membership. These 17 schemes account for over 57 million hectares of certified forests producing millions of tonnes of certified timber to the market place making PEFC the world's largest certification scheme. The other national members schemes are at various stages of development and are working towards mutual recognition under the PEFC processes.

**Rainforest Alliance** (RA). A number of agricultural producers in Latin America let their farms voluntarily be tested by the environmental organisation Rainforest Alliance for fulfilment of social and environmental criteria.. Based in New York City, with offices throughout the United States and worldwide, the Rainforest Alliance is working in 53 countries. The mission of the Rainforest Alliance is to protect ecosystems and the people and wildlife that depend on them by transforming land-use practices, business practices and consumer behavior. Companies, cooperatives and landowners that participate in the RA-programs meet rigorous standards that conserve biodiversity and provide sustainable livelihoods. Companies which have successfully undergone such examination may label their products with the 'ECO-OK' label. The crops certifying by Rainforest Alliance are Coffee, Bananas, Flowers and Ornamentals, Citrus and Cacao.

The **Comité de Liaison Europe-Afrique Caraïbes Pacifique** (COLEACP) is an interprofessional association of exporters, importers and other stakeholders for trading

horticultural products with ACP states. The proposed COLEACP-criteria are remarkable because of their extraordinary volume and detail, containing not only ecological but also comprehensive social criteria. This proposal of the EU working group is also based on comprehensive lists of criteria with a view to Good Agricultural Practice.

<b>Main areas of evaluation for criteria systems in plant growing</b>
<ul style="list-style-type: none"><li>• Description of environmental politics</li><li>• Location description</li><li>• Documentation</li><li>• Soil care and substrate treatment</li><li>• Water management</li><li>• Crop rotation</li><li>• Fertilisers and fertiliser techniques</li><li>• Plant protection (<b>including alien species</b>) and plant protection techniques</li><li>• Waste management</li><li>• Energy</li><li>• Nature / landscape / water protection</li><li>• Hygiene</li><li>• Advanced training</li></ul>

The spread of alien species is due mainly to increasing international trade. International trade therefore has a large part of the responsibility for the protection of food, the environment, and social safety. This responsibility must be made clear to traders. The business is primarily responsible for goods which are in perfect condition. The state is only second in the line of those responsible, with its legal standards and inspections. The principle of the originator counts! It is not fair that the profit from global trade is privatized and the risks on the other hand are socialized.

## **CONCLUSION**

Trade and production have created private international quality management and environmental criteria systems for their quality controls. Private certifiers already visit the businesses to inspect these. Private systems therefore exist. These must be used and extended. It should therefore be possible without involving too much effort to clearly reduce the problematical spreading of alien species. The state alone will not be able to solve this problem in a sustainable and credible manner on its own. Phytomedicine, the government, trader and trading organizations must work more closely together in the future. In future we all must work together closely in a transdisciplinary manner, because the trading of fresh goods is a very fast global business. Only governmental restrictions and controls are in future not efficient enough and cause very high costs.

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