

# **A COMPARATIVE ANALYSIS OF FOOD QUALITY ASSURANCE SCHEMES: THE CASE OF NEULAND AND EUREPGAP**

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# **A COMPARATIVE ANALYSIS OF FOOD QUALITY ASSURANCE SCHEMES: THE CASE OF NEULAND AND EUREPGAP**

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## **Abstract**

Food Quality Assurance Schemes (QAS) are widely applied in the European Union. Neuland and EurepGAP represent two different approaches. Neuland differentiates meat clearly by a strict emphasis on rules regarding animal welfare to provide consumers with meat produced at a high animal welfare standard. EurepGAP certifies the compliance to international accepted standards with regard to Good Agricultural Practise to ease the exchange of products throughout the supply chain. In terms of overall benefits and costs, the study showed that for both QAS the benefits clearly outweigh the costs. This paper compares the schemes and their implications for the agro-food chain.

## **Keywords**

Quality Assurance Schemes, food policy, food chain.

## **1 Introduction**

Quality Assurance Schemes (QAS) play an ever increasing role in food policy and in particular in the food supply chain. This is despite the fact that the overall volume of agricultural production covered and regulated by QAS remains at a low level. However, it has been recognised that the ‘farm-to-fork’ chains, creating both benefits and costs to all of those who participate in such chains, from farmers over traders, processors, and retailers to the final consumers. This is the reason that the number of QAS in the agricultural sector is steadily increasing.

In principle QAS are defined as a code of practice, standard or set of requisites that enable stakeholders to guarantee compliance by adhering to what is declared and to signal this to the end or next user underlying this statement there is some independent verification process that adds authority to the stakeholders’ statement (EUROPEAN COMMISSION, 2006). Participation in QAS is entirely voluntary, although some schemes in some countries have already a quasi mandatory status. And although QAS are homogenous in their aims and orientation, the structure of QAS varies wildly across the EU. While some QAS are confined regionally and hence affect a very small volume of agricultural produce, others operate on a national or even global level. Other differentiations are that some are private and others public, whilst some are regulated by national law and others by European law.

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A central element in all QAS is quality. Quality is the biggest ‘marketing’ tool of QAS, despite the fact that with regard to user-oriented quality, product quality is highly subjective and difficult to measure (GRUNERT, 2005). Therefore quality has different meanings in different contexts and amongst different stakeholders, ranging from intrinsic quality aspects and quality attributes via food safety and processing guarantees to authenticity signalling quality. This makes quality and quality assurance multidimensional and the variety in quality notions implies that many different aspects can be part of a QAS.

QAS can be broadly classified in two main types. The first type<sup>1</sup> aims explicitly to segment the market by protecting an existing product, with specific characteristics and effectively creating a differentiated product in the market. Typically of these schemes is that they use labels to signal product and process qualities to consumers.

The second type<sup>2</sup> consists of “quality management systems” or “within-chain standards”, or “minimum standards schemes”. Safety and process quality are important dimensions of these schemes. A main characteristic is that these standards remain ‘internal’ and are not usually communicated to the consumer.

To validly assess the broad range of QAS, this paper analyses Neuland an example of the former and EurepGAP as a second type of QAS. Moreover, both schemes are good examples of their types. While Neuland is focusing on animal welfare, with a participation of only about 200 farmers, EurepGAP is applied world-wide with more than 50 000 certified farmers. The paper initially analyses each QAS in detail separately, before discussing the differences and similarities<sup>3</sup>. The results presented here are based on direct consultation with the two schemes as well as on available literature.

## 2 The case for Neuland

Neuland<sup>4</sup> has been established in 1988 as a private scheme as an association for applying good animal practice and environmental friendly livestock production. Since inception Neuland has been established as a program for an independent brand for meats, which was established as a new concept and not as a form of a biodynamic or organic program. The Neuland program has set new standards for good animal welfare and practice, which are now recognized by many institutions. To that end the aim of Neuland QAS is to establish a high-quality orientated, animal and environmental friendly livestock production on many farms across Germany (NEULAND, 2007).

The Neuland concept is unique, as it was created through organisations<sup>5</sup> with a background in environmental protection, agriculture action groups, and animal welfare, and not as a PDO (Protected Designation of Origin) or PGI (Protected Geographical Indication) nor through an organisation of butchers or meats processors.

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<sup>1</sup> This category includes the EU’s PDO (Protected Designation of Origin), PGI (Protected Geographical Indication) and TSG (Traditional Speciality Guaranteed) schemes, but also organic farming schemes, as well as a great number of national and regional schemes.

<sup>2</sup> This category includes general certification schemes like ISO9001 and EurepGAP.

<sup>3</sup> This is based on a project conducted by the European Commission (2006) comprising nine case studies of QAS within the European Union (<http://foodqualityschemes.jrc.es>)

<sup>4</sup> Neuland – Verein für tiergerechte und umweltschonende Nutztierhaltung e. V. [www.neuland-fleisch.de](http://www.neuland-fleisch.de)

<sup>5</sup> ABL (Arbeitsgemeinschaft Bäuerliche Landwirtschaft ); DTschB ( Deutscher Tierschutzbund); BUKO (Bundeskongress Entwicklungspolitischer Aktionsgruppen – Agrarkoordination); BUND (Bund für Umwelt und Naturschutz)

## **2.1 Structure of Neuland scheme**

Central to the Neuland structure are the producers, as strictly speaking, Neuland is owned by its producers, who are represented in the executive board among representatives of the founding bodies. The Neuland e.V. board sets the regulations and control standards and oversees the acceptance of new holdings and meat outlets. The board also issues the licenses for the three regional marketing and production centres, as well as authorizing the regulations and control commission to establish draft for regulations and to control farms and meat outlets. This structure ensures that all tasks within the Neuland organisation are controlled and carried out by Neuland (NEULAND, 2007).

Currently there are around 200 shareholders (producers) in the Neuland scheme, of which there are 90 pork producers. Each producer is a shareholder of Neuland, because by joining Neuland each producer has to acquire shares worth EUR 700. Additional shares relating to livestock size of at least worth EUR 350 have to be acquired. Shares are issued per 32 pigs or 12 sows, 10 beef cattle or 560 hens. In the case a producer would like to leave the Neuland scheme, his shares are either bought back for the same entry price by Neuland itself, or be taken over by new entrants.

Neuland is divided into three regional marketing and production centres, namely Lüneburg, Westfalen and Baden-Württemberg. Each of these centres consists out of four organisations: Neuland e.V., Neuland GmbH, extension service for animal welfare, and the Neuland farms. The Neuland e.V. is responsible for developing the animal welfare, environmental, and consumer aspects, the Neuland GmbH for the marketing and cooperation between producers and the international relations, and also for dealings with producers, such as logistics of deliveries to abattoirs and outlets, information about demand and supply, financial and quality control, and first point of contact with potential new farms. The extension service for animal welfare advises producers on how to convert and what is required to obey to Neuland regulations such as hygiene and other standards. Lastly the Neuland farms are applying the Neuland philosophy and the animal welfare standards.

## **2.2 The economics of Neuland**

Neuland is the largest supplier of meat and meat products adhering to strict animal welfare standards in Germany. The Neuland supply chain is very short, straightforward, very transparent and monitored and executed by Neuland shareholders. There are only three to four actors involved along the supply chain being. Neuland is very concentrated within Germany and not spread across many parts of the country and has no rival product within Germany. The stronghold of Neuland is in predominantly rural areas (the north-west region around Lüneburg, Westfalen and Baden-Württemberg). Each of the centres has an independent Neuland supply chain. On the retail outlet side however, the concentration is even more significant with most outlets selling meat products are located in Berlin.

The benefits of the Neuland QAS fall predominately, after all factors are being paid, to the shareholders (the producers), as it is typically for a vertically integrated, producer-owned chain. The chain is very much driven from both ends, because an increasing number of producers join the scheme while at the same time demand for Neuland meat is increasing. Producers predominantly join Neuland out of farm opportunity, diversification and also sheer survival motives. The meat outlets are driven by profit, but also in sharing the Neuland philosophy.

Neuland's success creates a problem on its own, as an expansion is only possible in a limited way. The increase in demand cannot be met with the opening of new meat outlets in urban areas. Entering the mainstream retail market would certainly solve the retail problem, but it

would also act against its own philosophy and certainly could mean that several meat outlets would go out of business, due to price cutting and loss of exclusivity. The main concern is that Neuland products would lose one of its main selling tools, its exclusivity and more importantly it may harm the perception of the consumer that Neuland is unique and of high quality. At present Neuland is actively seeking to add more meat outlets in core locations such as Hamburg and Munich, and also to focus on to getting an increasing share of Neuland products into restaurants, fast food stands (Imbiss) and other catering outlets. The demand for Neuland products would also require a greater recruitment of farms that are willing to join Neuland. Given the conversion time for a farm of up to three years it makes it difficult to respond quickly to a changing demand.

Within the Neuland scheme food safety and animal welfare is combined with regional and rural development policies. This is because it provides added value for almost all stakeholders along the supply chain. An almost unanimous reaction from all stakeholders was that the Neuland scheme was a tool to help them to or to ensure their stay in business. Without being part in this scheme, many producers would not be able to compete in the conventional pig market and would be forced to exit agriculture<sup>6</sup>. To that end the Neuland scheme has some significance in regional development.

In terms of regional development Neuland provides with its scheme opportunities for small to medium farms. The basic approach of the CAP goes into the right direction since the MTR (and the proposals for the health-check of the CAP in 2008) is attempting to strengthen the 2<sup>nd</sup> Pillar through fund switching. And in particular the provision made to good agricultural practice and animal welfare standards, which is the platform upon the Neuland case, is being based. One can therefore argue that in their accumulation, the small to medium farms may just emerge as the biggest guardian to provide the consumer with safe food and the public with a clean environment, provided they stay in business. It is for that reason that schemes like Neuland are important to the rural farming community.

From this analysis one can extrapolate that schemes covering a niche product and operated in a Neuland format might be intrinsically limited in size. Exclusivity means exclusivity and if a product is readily available across all supermarkets that exclusivity is being lost. Another marketing strategy has to be developed. However, it might be possible to expand in size (only up to a point), as the Neuland example has shown by establishing regional centers that only serve that region. Such strategy would ensure that the basic principles of Neuland would be kept. And precisely by having more and larger regional centres producing Neuland products, the general solution of small farm problems has a chance of being addressed.

Table 1 summarizes the most important strengths, weaknesses, opportunities and threats regarding the Neuland quality assurance scheme.

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<sup>6</sup> This is based upon a survey of Neuland pork producers

**Table 1<sup>7</sup>: SWOT analysis of the Neuland quality assurance scheme**

<p><b><u>Strengths</u></b></p> <ul style="list-style-type: none"> <li>- Quality brand meat which is pivotal for supply chain and consumer demand</li> <li>- Strong animal welfare standards</li> <li>- Producers driven and owned</li> <li>- Small and transparent supply chain</li> <li>- Niche product</li> </ul>	<p><b><u>Weaknesses</u></b></p> <ul style="list-style-type: none"> <li>- Small geographical coverage</li> <li>- Low output</li> <li>- Cannot satisfy demand</li> <li>- Limited in size as no distribution through supermarkets</li> <li>- Lack of management skills</li> <li>- High price premium</li> </ul>
<p><b><u>Opportunities</u></b></p> <ul style="list-style-type: none"> <li>- Distribute throughout Germany and expand geographical coverage</li> <li>- Enforce Neuland standards to other schemes as high baseline standards</li> <li>- Merge with some organic schemes and impose Neuland standard but obtaining new organic market</li> <li>- Expand Neuland brand into restaurants</li> </ul>	<p><b><u>Threats</u></b></p> <ul style="list-style-type: none"> <li>- Uptake of animal welfare standard products by retailer or other scheme (unlikely).</li> </ul>

Source: Authors' own

### 3 The case for EurepGAP

EurepGAP<sup>8</sup> was established in 1997 as a private initiative of retailers belonging to the Euro-Retailer Produce Working Group (EUREP). It has subsequently evolved into a partnership of agricultural and food producers and their retail customers, with the aim to develop widely accepted standards and procedures for the global certification of Good Agricultural Practices (GAP).

The desire to reassure consumers is a driving force behind EurepGAP, following food safety scares such as BSE (mad cow disease), pesticide concerns and the rapid introduction of GM foods. In addition, consumers throughout the world are asking how food is produced with the need to be re-assured that it is both safe and sustainable. As food safety is a global issue and transcends international boundaries, many EurepGAP members are global players in the retail industry and obtain food products from around the world. "If a reason was needed for EurepGAP's existence it is because food safety is an ongoing everyday concern." (Alfons Schmid, in EUREPGAP (2006)).

In responding to the demands of consumers, retailers and their global suppliers, EurepGAP has 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.

#### 3.1 Economic assessment of EurepGAP

An obvious benefit of attaining EurepGAP certification is that the producer will gain access to the intended market. Other benefits include producing a higher quality product, being more environmentally sustainable, improving worker welfare, etc. This compilation of standards in the EurepGAP protocol assures retailers that issues important to them are taken into account, while at the same time, saving producers the extra time, energy and money that they would

<sup>7</sup> The SWOT analysis is based upon an analysis comprising of experts interviews, stakeholders and available literature

<sup>8</sup> www.eurepgap.org

have needed to attain certifications for each of these issues individually. For traders and processors EurepGAP provides the opportunity to obtain product which is certified according to industry-accepted traceability and Good Agricultural Practise standards. This is directly compatible with the widely applied BRC (British Retail Consortium) Global Standard for food and the IFS (International Food Standard). To maintain these benefits traders and processors have to separate EurepGAP produce from other produce, which might be at a cost. Direct participation in EurepGAP and especially its requirement development needs a membership at the fees illustrated in Table 2. Retailers would receive produce which fulfils their requirements with regard to traceability and Good Agricultural Practise. Retailers demand more and more the certification of especially fresh produce according to EurepGAP. Some information indicates that all fresh produce sold by major retailers has to be EurepGAP certified, but detailed information is not available (NAGEL, 2004). Table 2 provides an overview of the discussed benefits and costs.

**Table 2: Summary of benefits and costs by main stakeholder category**

	Benefits	Costs
Farmer / Producer	<ul style="list-style-type: none"> <li>• Access to the mainstream market</li> <li>• Establishment of a Quality Management System</li> <li>• Single certification</li> </ul>	<ul style="list-style-type: none"> <li>• EurepGAP fees 23 Euro to 120 Euro</li> <li>• Certification cost 1000 Euro to 50000 Euro (very vaguely estimates depend on farm and certification body)</li> <li>• Adjustment of farm business to EurepGAP requirements</li> </ul>
Processor / Trader	<ul style="list-style-type: none"> <li>• Traceability and Good Agricultural Practise</li> <li>• Compatible with BRC and IFS</li> </ul>	<ul style="list-style-type: none"> <li>• Voluntary membership in EurepGAP</li> <li>• Maintenance of the traceability chain (e.g. BRC, IFS)</li> <li>• Separation costs of EurepGAP and non EurepGAP</li> </ul>
Retailer	<ul style="list-style-type: none"> <li>• Traceability and Good Agricultural Practise according to retailer requirements</li> <li>• EurepGAP requirements are strongly influenced by retailer interest (50 % participation in all boards)</li> </ul>	<ul style="list-style-type: none"> <li>• Voluntary membership in EurepGAP</li> <li>• Search costs for EurepGAP products</li> <li>• Maintenance of the traceability chain</li> </ul>
Consumer	<ul style="list-style-type: none"> <li>• Indirect benefits from Good Agricultural Practise (low residues etc.)</li> <li>• Traceability might be beneficial in the case of food crises</li> </ul>	<ul style="list-style-type: none"> <li>• EurepGAP is financed by the private sector and this will end up in the consumer price</li> </ul>

Source: Authors' own

One societal benefit might be the improvement of the efficiency of the resource usage. Here the collaboration with NGO especially in the field of plant protection has resulted in EurepGAP requirements which have clearly beneficial societal contributions in comparison with standard production of fresh produce. In addition the establishment of quality management systems at the farm level will have in the most cases beneficial effects on the usage of resources (fertiliser, plant protection, irrigation etc.) and factors (labour, capital and land) as well as the efficiency of production (PERIS MOLL and JULIÁ IGUAL, 2007). On the other hand some of the requirements will also unnecessarily bind some resources; this issue is often voiced in relation to record keeping requirements. The observed dominant position of large retailers within EurepGAP might be seen as a social cost as this limits the choice and influence of other participants in the agro-food chain.

### 3.2 Advantages and disadvantages of EurepGAP

Since inception EurepGAP is establishing a Pan-European standard system and tries also to harmonise all EU-wide standards to achieve a system where other common standards are being benchmarked against EurepGAP, in order to bring greater transparency into the system. This approach constitutes undoubtedly an advantage and an opportunity of the scheme, but this has not been completely achieved so far. The following SWOT analysis (Table 3: ) has been carried out from the viewpoint of active participants in the food chain (e.g. farmers, traders, processors, retailers) with the objective to analyse the advantages and disadvantages of EurepGAP.

**Table 3<sup>9</sup>: SWOT analysis of the EurepGAP value chain**

<p><b>Strength</b></p> <ul style="list-style-type: none"> <li>- Private sector initiative</li> <li>- A pre-farm standard including seeds and other early inputs</li> <li>- Willingness to harmonize different standards</li> <li>- Pan-European &amp; global approach</li> <li>- Influential scheme</li> <li>- Global partners</li> <li>- Freely available information on requirements</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>- Not visible for consumers, which means that a lot of potential buyers are not being aware</li> <li>- Not size neutral (in favour of larger farms)</li> <li>- Imposing standards onto farmers</li> <li>- Lack of collaboration in some countries</li> <li>- Retailer driven</li> <li>- Not an equal partnership as claimed, because suppliers are split into different groupings</li> <li>- High certification costs</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>- Harmonize EU-wide standards by recognising other existing schemes</li> <li>- Create global network of standards</li> <li>- Increase transparency amongst standard systems</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>- Losing of specific focus due to global application</li> <li>- Loss of some retailers as they plan own scheme</li> <li>- Pan-European QAS through regulator</li> </ul>

Source: Authors' own

The strengths of EurepGAP from the viewpoint of the active participants in the food supply chain include that it is a private sector initiative and thus, is flexible to react to changes and adjust the scheme if necessary. Especially for farmers it is of advantage that already seeds and other inputs are included and in this way ease the traceability of these inputs. In several contracts signed by farmers it is necessary to provide detailed information on the origin of inputs. Due to the usage of EurepGAP on an European and even global level it is possible to obtain products produced to similar standards without the necessity to compare national legal requirements and their enforcement. Because of its success EurepGAP has already developed into an influential player on the market and serves as orientation for other schemes.

The weaknesses of EurepGAP include that it is not a producer driven scheme and non-visible scheme for consumers, as it is a B2B scheme. Both of these aspects imply that a price premium for farmers are almost impossible and are currently non observable. By some

<sup>9</sup> The SWOT analysis is based upon an analysis comprising of experts interviews, stakeholders and available literature

farmers it is felt as EurepGAP is imposing standards onto them which they have to obey to stay in the mainstream market. The scheme is retailer driven and the claim of an equal partnership is somehow artificial as retailer alone account for 50 % in all decision bodies of EurepGAP. The other stakeholders are split in different categories and account together for the other 50 %. Another weakness are the high certification costs which are due to several circumstances, firstly, the certification has to be paid in full, as no support is available, secondly, the considerable membership and accreditation fees for certification bodies to become member of EurepGAP are transferred to the certification costs and lastly, the controls are rather extensive and thus require much effort by the certification bodies which has to be paid for. For the participation of small-scale producers/farmers the farm group option has been created but still the accessibility to EurepGAP remains limited as the requirements as well as the certification costs pose a huge obstacle. It is questionable whether this is possible to be overcome size neutral. The only option would be a redistribution of burdens between participants but this appear not a viable option for a privately run scheme.

In the future development the size and importance of EurepGAP creates both opportunities and threats. It may be a clear reference system for all Good Agricultural Practise schemes but on the other side it may loose its focus and be challenged by new schemes either form private initiatives or possibly from public institutions. From the former because EurepGAP might be less focussed due to the necessity to be applicable throughout the world.

#### 4 Discussion

The demand for better food quality and the greater awareness by consumers of how products are being produced and processed is increasing. This in itself led to the emergence of private (and public) standards as an increasingly dominant instrument of governance in the agri-food chain, both nationally and internationally. At the same time it also raises challenges for policy makers in defining appropriate responses to emerging food safety and quality issues (HENSON and REARDON, 2005).

Of particular interest are private standards, as they develop in response to weaknesses in public standards. Both Neuland and EurepGAP address this weakness and expose the extent to which private modes of regulation is substituting for public action about the capture of food safety and quality governance by private interests. The two schemes also show clearly that private standards have evolved despite the existence of strong public food safety and quality standards as a means to differentiate products, reflecting the growing predominance of quality as the mode of competition.

**Table 4: Summary comparison of EurepGAP and Neuland**

	EurepGAP	Neuland
Origin	Private initiative of retailers	Environmental protection, agriculture action, and animal welfare organisations
Main focus	Quality management and traceability	Animal welfare
Geographical coverage	World wide certification	Three regions in Germany
Number of farmers	Ca. 50 000	Ca. 200
Communication	Communication only within the food-chain	Development of a brand like marketing

*Source:* Authors' own

In here the difference between the two schemes are evident. Neuland as a small and regionally confined scheme is using its QAS as a brand and is operating in a niche market with no competition in its market on quality, whereas EurepGAP competes with other similar schemes. This might be an explanation as to why so many diverse QAS are emerging,

because smaller and regional ones are filling a (niche) market, where others are trying to have an over-arching goal. QAS are tailor-made for their supporting stakeholders; this is the case for Neuland and EurepGAP.

The study showed also that private standards can also act to facilitate compliance with public standards and/or allow for the better targeting of scarce compliance resources. This is in particular the case for EurepGAP. It combines some legal requirements, e.g. traceability, with aspects of resource use, e.g. fertiliser, plant protection. In this regard it is complementing the existing public standards. Concerning its dominance in the fruit and vegetables sector it can be argued that it already constitutes a de-facto standard. So far no reliable facts could be found which would prove such an issue.

EurepGAP communicates on quality aspects only within the agro-food chain and not to the final consumer. This is in clear contrast to Neuland, where its logo is designed to be visible to all stakeholders in the supply chain to convey the information about the animal welfare standard applied by Neuland.

In terms of benefits and costs, the study showed that for both QAS the benefits clearly outweigh the costs. Especially for EurepGAP in the case of the retailers as they receive fresh produce which fulfils their requirements at a costs which cannot be quantified, as no price difference between EurepGAP and non EurepGAP could be observed. For farmers in both QAS it appears to be attractive to participate but it is unclear how their balance between benefits and costs stands. However, both aspects have a considerable importance. Other stakeholders are only affected to a limited extent in terms of benefits and costs.

From an economic point of view, the Neuland scheme offers stakeholders and in particular the producers a vital form of existence. Without being part in this scheme, many producers would not be able to compete in the conventional pig market and would be forced to exit agriculture or would not see a perspective to ensure the survival of the farm for the next generation. To that end the Neuland scheme has some significance in regional development, as it provides opportunities for small to medium size producers.

The balance between retailers and producers and other stakeholders in EurepGAP might not be perfect, as there is too much focus on the retailers, but it serve the easier exchange of products throughout the agro-food chain. Neuland on the other hand has a better balance, as this 'closed' supply chain dictates itself how the balance should look like.

Taken together it emerged from this study that QAS are performing a pivotal role in the food supply chain but also in the wider agriculture sector. The huge variation in schemes indicates that there is a role for different QAS, but it also bears the thought of the benefits in aligning the schemes.

## **Literatur**

EUREPGAP (2006). *EurepGAP-Newsletter*, September 2006; online: [www.eurepgap.org](http://www.eurepgap.org)

EUROPEAN COMMISSION (2006). *Economics of food quality assurance and certification schemes managed within an integrated supply chain*. Final Report; online: [http://foodqualityschemes.jrc.es/en/documents/FinalReport\\_EconomicAnalysis1\\_000.pdf](http://foodqualityschemes.jrc.es/en/documents/FinalReport_EconomicAnalysis1_000.pdf)

GRUNERT, K.G. (2005). Food quality and safety: consumer perception and demand. *European Review of Agricultural Economics*, Volume 32, Issue 3, September 2005: 369-391.

HENSON, S. and REARDON, T. (2005). Private agri-food standards: Implications for food policy and the agri-food system. *Food Policy*, Volume 30, Issue 3, June 2005: 241-253.

- NAGEL, J. (2004). *Private Sector Initiatives to Guarantee Food Safety and Environmental Standards: An Emerging System of Global Protocols*. Midwest Specialty Grains Conference; online: <http://www.ngplains.org/documents%5CMidwest%20Specialty%20Grains%20speech.pdf>
- NEULAND (2007). Online information available on the web-site: <http://www.neuland-fleisch.de>
- PERIS MOLL, E.M. and J.F. JULIÁ IGUAL (2007). *Production costs of citrus growing in the Comunidad Valenciana (Spain): EurepGAP protocol versus standard production*. In THEUVSEN, L., A. SPILLER, M. PEUPERT and G. JAHN (eds.): *Quality management in the food chains*. Wageningen Academic Publishers, Wageningen: 69-78.