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**Original scientific paper**

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**CREDENCE ATTRIBUTES OF AGRICULTURAL AND FOOD  
PRODUCTS AND THEIR IMPLICATIONS ON MARKETING**

**Abstract**

Nowadays, consumers are increasingly sensitive to the conditions under which the food they purchase and consume is produced, cultivated and processed. Furthermore, consumers also incorporate environmental impacts, animal welfare concerns and other process attributes into food purchase decisions. More specifically, increased interest in production practices and technologies used in food production has been seen, specifically concerning irradiation, use of antibiotics, hormones, special feeders, synthetic fertilizers, herbicide and pesticide use. In the past years, perhaps one of the most controversial technologies employed in the food production is the use of genetic modification of food. These concerns are even bigger regarding practices or technologies and materials used in the produced food,, specifically for infants or young children, making labeling and marketing of products for such special-interest segments of the population an area of continued controversy. As a result, growing segments of world consumers seek improved quality, healthiness and variety in the food they are consuming. Accordingly, the demand of agro-food products possessing these characteristics is rapidly increasing, and the food marketing sector is responding to an increased level of interest to the consumer demand for products with an increasingly wide array of attributes. The needs of differentiation include factors related to experiential eating quality as well as credence attributes related to environmental and other social outcomes. But consumers often do not have enough information when buying goods with attributes that are aligned with the above mentioned issues, and it is often difficult for

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them to check the honesty of these claims. It seems that it is necessary to adapt marketing practices, since consumers demand the food to have certain credence attributes, and often, are willing to pay more for such food. In global agri-food markets, products marked as "organic", "eco-friendly", "safe", "natural", "locally grown", "place-of-origin", "animal welfare" and "kosher" are just a few examples of "credence attributes" food. Consumer preferences, concerns, fears, politics and beliefs seem increasingly to govern new food marketing opportunities based on the nature of food production systems.

This paper attempts to advance knowledge in credence attributes for agricultural and food product, as well as to address the need of developing appropriate marketing approach in order to meet the increasing market interests in these products.

**Key words:** credence attributes, food and agricultural products, consumer preferences, marketing

**JEL classification:** M3,Q13,Q19

## **Introduction**

Credence attributes are product features that consumers are not able to verify before, during or after the consumption, but still they can perceive and value them. The credence attributes are desirable product benefits like nutritional value and wholesomeness that cannot be experienced directly.<sup>2</sup> In the agri-food market, "organic", "eco-friendly", "safe", "natural", "locally grown", "place-of-origin", "animal welfare" and "kosher" are examples of credence attributes that consumer segments across the world increasingly value when making their food product choices. Over the past two decades, consumer demand for such products has grown substantially.

Generally speaking, consumers' perception of quality is influenced by the product's intrinsic attributes as well as by extrinsic indicators and information provided by the seller.<sup>3</sup> Intrinsic food

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<sup>2</sup> Oude Ophuis, P.A.M. & Van Tripp: Perceived quality: a market driven and consumer oriented approach; *Food Quality and Preference*, H.C.M., 1995, p.177-183.

<sup>3</sup> Caswell, Julie A., Corinna M. Noelke, and Eliza M. Mojdzuska: Unifying Two Frameworks for Analyzing Quality and Quality Assurance for Food Products; *Global Food Trade and Consumer Demand for Quality*, ed., B. Krissoff, M. Bohman, and J. A. Caswell, New York, NY: Kluwer Academic/Plenum Publishers, 2002, p.43-61.

attributes are mostly related with the nutritional characteristics and health issues, while most of the extrinsic properties of food are related with the production environment, production practices employed or technologies and materials used, and are difficult to verify at the point of sale. According to the level of quality that can be discovered by the consumer at different stages, food as a merchandise good can be classified into:<sup>4</sup>

- Search-when consumers can evaluate relevant attribute information before the purchase (e.g., price, dimension, size, color),
- experience-when relevant attribute information can be determined only after consumption (e.g. eating quality such as taste and convenience), and
- credence goods-those whose relevant attribute information is difficult to ascertain directly by consumers at any stage of purchase, even after consumption of the food.

Given the unique nature of credence attributes, it is not easy to assess them and consumers often rely on the judgement and information of others that the product contains the desired attribute, or on the certification by an authority institution such as a governmental agency, or organizations that consumers trust to lend information on credence attributes. Needless to say, many agricultural and food products fool into the category of credence goods.

Since the credence attributes play an increasingly important role in consumer preference formation, understandably, the set of the attributes desired for the "good food" is dynamically evolving in the food system. Thus, it is not exaggerating to say that the future of many agribusinesses lies in understanding patterns and consistencies of consumer values for these credence attributes, as well as on applying adequate marketing approach, based on product differentiation.<sup>5</sup> Namely, food with credence attributes generates differentiation under the presumption that utility-maximizing consumers derive utility from product attributes, not from the product itself, and thus, they are willing to pay more for such products. Subsequently, credence attributes

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<sup>4</sup>Darby Kim, Marvin T. Batte, Stan Ernst, and Brian Roe.. Decomposing Local: A Conjoint Analysis of Locally Produced Foods. *American Journal of Agricultural Economics* 90(2), 2008, p.476-486.

<sup>5</sup> Traversi, Chiara M., and Peter Nijkamp: Valuing environmental and health risk in agriculture: A choice experiment approach to pesticides in Italy; *Ecological Economics* 67(4), 2008, p.598-607.

complicate consumer valuation of products because pre and post-consumption values may not coincide. From a marketing point of view, the lack of consistency between pre and post-consumption valuations can significantly affect repeating purchase decisions. From an economic perspective, this lack of consistency complicates predictions of market demand and also may affect welfare measures arising from valuation exercises. It is obvious that credence food purchases require to be embedded in trust, confidence and ethical traceability, both in the product and in the systems of supply.

The paper is divided into two sections following this introduction. The first section is dedicated to the factors influencing the costumers' decision to purchase food with credence attributes and their willingness to pay more and thus, it gives an overview of various studies and research which have examined the influence of important attributes on consumers buying behavior of food. The second section examines the possible implications these factors can have in marketing agricultural and food products with credence attributes. We conclude by drawing some directions for sustainable development of production of food and agricultural products with credence attributes and pointing out limitations and issues that could be subject of future research.

### **1. Factors influencing the costumers' food purchases and willingness to pay more**

So far, both the agricultural economics and marketing literature have largely examined the impact of several credence attributes on consumers' intentions of buying products, as well as the factors influencing customers' willingness to pay more. Being that agricultural and food products are exchanged on a perfect market and are really hard to standardize, we must underline that experience related attributes that are clearly present in all foods are common, as are credence attributes. This factual situation is affecting the categorization of attributes, given in Table 1, where findings from data base of 40 studies are summarized and presented.<sup>6</sup>

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<sup>6</sup> Riccard Moser, Roberta Raffaelli and Dawn Thilmany-McFadden: Consumer Preferences for Fruit and Vegetables with Credence-Based Attributes: A Review; *International Food and Agribusiness Management Review Volume 14, Issue 2, 2011, p.125.*

**Table 1: List of attributes, including credence subset, and frequency of inclusion**

<b>Attributes List</b>	<b>Studies that considered attribute</b>	<b>Studies with econometric model</b>	<b>Studies reporting attribute significant at 5% level</b>
Visual, smell and taste	24	3	1
Quality	6	1	1
<i>Credence attributes</i>			
Health	27	11	8
Pesticide free	14	2	2
Organic	16	6	3
Environment	17	9	5
Support to farmers	5	1	-
Job creation	2	1	1
Origin	8	1	1
Local	9	-	-
Certification	11	8	6
Price	16	5	5
Brand	10	1	1
Packaging	2	1	-

*Source:* Riccard Moser, Roberta Raffaelli and Dawn Thilmany-McFadden: Consumer Preferences for Fruit and Vegetables with Credence-Based Attributes: A Review; *International Food and Agribusiness Management Review Volume 14, Issue 2, 2011, p.121-142.*

In Table 1 we can see a list of all attributes, the number of studies that have considered a particular attribute, how many of them have used an econometric model and how many found that the attribute is statistically significant at 5% level (or higher). In general, the results show that the significance of attributes does not change the practice of using different evaluation techniques, which suggests that methodology affects the magnitude of these attributes, but not their significance.

Regarding visual, smell and taste components, it is noticeable that they are often top rated among attributes listed. This is also quite predictable and expected since they are the basic components of eating experience and the most relevant and valued reasons for buying and being willing to pay more. In fact, these components are commonly used as indicators about the overall product quality, being that their relative importance varies with the product. Namely, the main components of food quality are the taste and aroma (sweetness, acidity, astringency, and bitterness), the texture (perceived as firmness, juiciness, succulence) and the color and shape of the product.<sup>7</sup> However, since information on visual, smell and taste attributes is obtained and updated by consumers at each time of purchase, they are of less importance for marketing professionals, so we will focus our discussion on the subset of credence attributes, which will be described in details in the next paragraphs.

Health is a typical credence attribute that is becoming perceived by consumers as the most significant reason to buy sustainable food. This credence attribute is often connected to particular food ingredients (artificial additives, genetically modified organisms), to the presence of nutritional components (vitamins and minerals), and to the perceived risk associated with the use of synthetic fertilizers, pesticides, herbicides and other agrochemicals. The reason behind this association lies in the customers' believe that modern conventional food production practices may harm their personal health, or the public health (children, ill and elderly people, development of allergies). In order to reduce the perceived direct and societal risk, costumers are willing to pay more for their food. For example, one study shows that the risk concern "pesticide free" is perceived as another important attribute in the consumer buying behavior as respondents were willing to pay a premium averaging 15% above the regular price to buy pesticide-free fresh fruits and vegetables.<sup>8</sup>

Organic production could refer simply to a credence of production method, and the literature shows that this credence attribute has mainly positive influence on customer purchasing decision. One study on consumer behaviour in relation to the credence attribute "organic" has found health to be the primary reason for consumers

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<sup>7</sup> Tan, S. C.: Determinants of eating quality in fruit and vegetables. Proceedings from the Annual Conference of the Nutrition Society of Australia, 2000, p.183-190.

<sup>8</sup> Onozaka, Yuko, David Bunch, and Douglas Larson: What exactly are they paying for? Explaining the Price Premium for Organic Fresh Produce; *UPDATE Agricultural and Resource Economics* 9(6), 2006, p.1-4.

buying organic foods, followed by taste.<sup>9</sup> But in practice, organic farming consists of a whole set of attributes ranging from food safety, nutritional aspects, ethic values, health and environmental concerns to more production-specific issues such as pest management, fertiliser usage and soil treatment and has to be supported by a specific label or certification. Thus, more informed customers, familiar with the complexity surrounding organic certification processes, often doubt the existence of „truly organic” fresh fruits and vegetables<sup>10</sup>, suggesting that education of the customers is quite relevant factor affecting their purchasing decision. Overall, regarding the credence attribute “organic”, we may say that it primarily signalises a better taste to the consumer, but remains to be determined whether there are any actual sensory differences between organic and conventional food, which could verify or disprove the common claim that “organic tastes better”.

Environmental credence attributes are again mostly linked with the production process and suggest to the costumers the increased biodiversity, the ecosystem protection and the natural system conservation. Among the analysed literature, this credence attribute ranges from somewhat important to important. There are studies that show that consumers with strong environmental awareness demand food grown by producers that use environmentally friendly practices.<sup>11</sup> However, other studies suggest that the environmental concern is the least important or even insignificant when making purchasing decision, especially when considering consumption behavior and demographic characteristics of the customers.<sup>12</sup>

Next on the list presented in Table 1 are credence attributes in relation with job creation and support of farms, also commonly known as socially oriented attributes of the production systems. The conducted studies in the past few years report that socially oriented attributes do not

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<sup>9</sup> Hughner, R. S., McDonagh, P., Prothero, A., Shultz II, C. J., & Stanton, J.: Who are organic food consumers? A compilation and review of why people purchase organic food; *Journal of Consumer Behaviour*, 6, 2007, p.94-110.

<sup>10</sup> Boccaletti, Stefano and Michele Nardella: Consumer Willingness to Pay for Pesticide-free Fresh Fruit and Vegetables in Italy; *International Food and Agribusiness Management Review* 3, 2000, p.297-310.

<sup>11</sup> Loureiro, Maria L., Jill J. McCluskey, and Ron C. Mittelhammer: Will consumers pay a premium for eco-labeled apples? *Journal of Consumer Affairs* 36, 2000, p.203-219.

<sup>12</sup> Hamilton, Stephen, David L. Sunding, and David Zilberman: Public goods and the value of product quality regulations: the case of food safety. *Journal of Public Economics* 87, 2003, p.799-817.

seem to affect the consumer decision in a significant way, causing the magnitudes of the marginal effect of such factors to become smaller<sup>13</sup> or insignificant<sup>14</sup>. Namely, customers willing to pay more for a food product with credence attribute do not prioritize their concern about the sustainability of local or small farmers and the creation of employment and better living conditions in rural areas.

It is generally accepted that, as a credence attribute, a country or region of origin of agricultural and food products has an effect on consumers' product evaluations. Since the food origin is tightly connected with consumers' quality experiences, in a majority of the studies it was found to be either important or somewhat important. In close relation to the origin is the attribute "local", that is considered a clear tendency that domestic, or regional, products are favoured over products from elsewhere. One of the specifics of the credence attribute "local" is that it appears to be crucial to the decision to buy fresh fruits and vegetables. Namely, costumers believe that locally grown products are fresher and better tasting.<sup>15</sup> Moreover, according to one study, the shorter the distance between producer and consumer (geographically and culturally speaking), the higher the effectiveness of local geographical indicators, suggesting that a feeling of belonging to a specific region creates positive emotions towards food from that area, enhancing the effect of origin.<sup>16</sup>

Finally, the certification of agricultural and food products, as a credence attribute, appears not to be crucial to make the purchasing decision. Several studies report that the lesser importance placed on the certification process could be due to the fact it cannot implicitly

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<sup>13</sup> Akgüngör, Sedef, Bulent Miran, and Canan Abay: Consumer Willingness to Pay for Organic Products Urban Turkey; Paper Presented at the 105th EAAE Seminar 'International Marketing and International Trade of Quality Food Products,' Bologna, Italy, March, 2009.

<sup>14</sup> Magnusson, Erik, and John A.L. Cranfield: Consumer Demand for Pesticide Free Food Products in Canada: A Probit Analysis; *Canadian Journal of Agricultural Economics* 5, 2005, p.67-81.

<sup>15</sup> Midmore, Peter, Simona Naspetti, Anne-Marie Sherwood, Daniela Vairo, Mette Wier, and Raffaele Zanoli: Consumers Attitudes to Quality and Safety of Organic and Low input Foods: A review. Report QLIF-Project No. FP6-FOOD-CT-2003-506358, 2005.

<sup>16</sup> Marchesini, Sergio, Hasimu Huliyeti, and Domenico Regazzi: Literature review on the perception of agro-foods quality; Paper Presented at the 105th EAAE Seminar 'International Marketing and International Trade of Quality Food Products', Bologna, Italy, March, 2005.

guarantee the credence attribute, such as safety, since regardless the production certificate, food can still be contaminated during its transportation and manipulation.<sup>17</sup> In a broader context, the complexity and ambiguity behind a certification process may also be part of the rationale for this consumer response.

Even in the modern food distribution system, brands have become an increasingly important quality signal. The situation presented in Table 1 suggests that it is less important in determining consumer buying decisions. Right next to brand is the packaging that was considered in only two studies and showed insignificant influence upon the costumers' decision to purchase certain food and their willingness to pay more.

Finally, we must comment the obvious fact that the price is still one of the deciding factors on purchasing decision. According to one study, even if a higher prices is perceived as a signal of the higher quality, it is a significant barrier for making the decision to purchase agricultural and food products with credence attributes.<sup>18</sup> It is obvious that price still matters.

## **2. Implications in marketing of agricultural and food products with credence attributes**

The review shows that consumers highly value credence attributes in agricultural and food products that are closely related to their personal health issues or food as enjoyment, while they are less concerned with the issue related to public goods, such as environment and biodiversity conservation, economic support of local or small farmers, job creation in rural areas. The reason for this situation might be the scarce knowledge about public credence attributes, or disbelief that their buying choices will have actual positive effects on these public affairs. This uncertainty surrounding some product attributes at the time of purchase can lead to a

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<sup>17</sup> Zanoli, Raffaele, Martine François, Peter Midmore, Katerine O'Doherty-Jensen, and Christopher Ritson: Determining consumer expectations, attitudes and buying behaviour towards "low input" and organic foods. Paper Presented at 3rd QLIF Congress: Improving Sustainability in Organic and Low Input Food Production Systems, University of Hohenheim, Germany, March, 2007.

<sup>18</sup> Silva, Andres, Rodolfo M. Jr. Nayga, Ben Campbell, and John Park: On the Use of Valuation Mechanisms to Measure Consumers' Willingness to Pay for Novel Products: A Comparison of Hypothetical and Non-Hypothetical Values. *International Food and Agribusiness Management Review* 10(2), 2007, p.165-179.

mismatch between purchase and consumption preferences. In order to prevent this, the general direction in marketing of agricultural and food products with credence attributes is to focus promotion on the positive effects, rather than making consumers aware of it. Namely, with pointing out a revealed attribute, such as health issues, quality and environment claims, it will assist consumers by making it easy for them to identify the presence of these hidden attributes at the time of purchase. Thus, the main scope of all marketing activities is to allow consideration of obvious attributes only.

Another implication that credence attributes have on the products marketing is their availability in terms of inconvenience of many retailers to sell them. Being that food with credence attributes often has a higher price, at first blush, it appears as an obstacle to increasing sales. Yet again, on more profound research, higher prices of the products will uncover a complex range of issues which include the problematic issue of “value”. On marketing level, the problem with availability should be solved through distribution of products with credence attributes. Good example of expanded distribution is an increasing offer of organic and healthy foods in supermarkets. The main marketing idea behind addressing the availability issue of agricultural and food products with credence attributes is influencing, and preferably changing customers’ purchasing habits. Namely, most consumers when making regular food purchases, are using simple choice methods, primarily choosing relatively lower priced products. Contrary, when making purchases based on habit, for example every week, customers often use specific choice methods<sup>19</sup> based on habit, that is purchasing the same products every week. It is true that it takes time and effort to change the habit, but from marketing perspective, it is wise to invest in changing customers’ habits, since habits tend to lead to stable purchasing patterns. In the context of habits, we must point out that on some occasion they may vary, when impulsive purchase is made and the customers are buying what they see in the store. Thus, as a marketing tool it is advised that food products with credence attributes be displayed in prominent positions, so they can attract the most impulse purchases.

Apart from habitual and impulsive consumers, food and agricultural products with credence attributes have customers that are

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<sup>19</sup> Plassmann, H., O’Doherty, J., Shiv, B., & Rangel, A.: Marketing actions can modulate neural representations of experienced pleasantness. *Proceedings of the National Academy of Sciences of the U.S.A.*, 105, 2008, p.1050-1054.

committed to purchasing them, that is, they are prepared to put serious effort in finding those specific (destination) products.<sup>20</sup> However, for many customers food with credence attributes is not a destination product and is regularly substituted with other food products. In those situations, from marketing point of view, it is advisable to prioritise achieving continuity of supply, since that will lead to avoiding substitution.

One of the particularities of agricultural and food products with credence attributes is that they require oversight by knowledgeable experts, and often 3<sup>rd</sup> party certification and labels on their safety and quality. Unfortunately, presented findings suggest that in most cases, consumers do not put a prime importance on the quality and safety certification processes. In order to increase the value of certifications, it is useful to provide more reliable information on the certification processes' connection to sustainable outcomes.<sup>21</sup> But, marketing these new generations of grades and standards effectively may be challenging given what consumer research signals about current interest in these programs.

## Conclusion

This paper provides a discussion on important consumer research questions regarding credence attributes which are likely to be crucial factors for purchasing food and agricultural products. As a main conclusion that comes out from the analysis provided in the paper, we can say that the decision to purchase food and agricultural products with credence attributes is primarily driven by personally driven attributes such as personal health or experiential eating quality.

Future research should be devoted to understanding the claims used for credence attributes, perceptions about the expected outcomes and marketing strategies that enhance trust and loyalty toward sustainable products. In short, targeting motivated consumers, positioning brands and

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<sup>20</sup> Roosen, J., Marette, S., Blanchemanche, S., & Verger, P.: The effect of product health information on liking and choice. *Food Quality and Preference*, 18, 2007, p.759-770.

<sup>21</sup> Zanoli, Raffaele, Martine François, Peter Midmore, Katerine O'Doherty-Jensen, and Christopher Ritson: Determining consumer expectations, attitudes and buying behaviour towards "low input" and organic foods. Paper Presented at 3rd QLIF Congress: Improving Sustainability in Organic and Low Input Food Production Systems, University of Hohenheim, Germany, March, 2007.

communication strategies for organic and low environmental impact food should focus on convincing consumers that these attributes confer an added value to the consumer, even if the value relates to a broader public good aspect of the food and its production system.

From marketing prospective, it seems that direct marketing is the most appropriate channel to distribute food and agricultural products with credence attribute. However, for further sustainable development of this market segment we must bear in mind that such direct marketing channels represent just a small share of the overall distribution of food and agricultural products with credence attributes. Additionally, the analysis in the paper shows that the attribute “local” has higher relevance when compared to organic, certification, and origin. This finding suggests that consumers accept the attribute local as an implicit quality guarantee. Furthermore, regarding food and agricultural products with credence attributes, customers have greater confidence in local than in certified products. As the attribute “local” is becoming more relevant for purchasing decisions, and possible more challenged new marketing efforts to communicate aspects that may relate to local sourcing, such as nutrition, environmental benefits and the willingness to support the local economy of the home region will be needed.

### **References:**

1. Akgüngör, Sedef, Bulent Miran, and Canan Abay: Consumer Willingness to Pay for Organic Products Urban Turkey; Paper Presented at the 105th EAAE Seminar ‘International Marketing and International Trade of Quality Food Products,’ Bologna, Italy, March, 2009
2. Boccaletti, Stefano and Michele Nardella: Consumer Willingness to Pay for Pesticide-free Fresh Fruit and Vegetables in Italy; *International Food and Agribusiness Management Review* 3, 2000, p.297-310
3. Caswell, Julie A., Corinna M. Noelke, and Eliza M. Mojduszka: Unifying Two Frameworks for Analyzing Quality and Quality Assurance for Food Products; *Global Food Trade and Consumer Demand for Quality*, ed., B. Krissoff, M. Bohman, and J. A. Caswell, New York, NY: Kluwer Academic/Plenum Publishers

4. Darby Kim, Marvin T. Batte, Stan Ernst, and Brian Roe.. Decomposing Local: A Conjoint Analysis of Locally Produced Foods. *American Journal of Agricultural Economics* 90(2), 2008
5. Hamilton, Stephen, David L. Sunding, and David Zilberman: Public goods and the value of product quality regulations: the case of food safety. *Journal of Public Economics* 87, 2003
6. Hughner, R. S., McDonagh, P., Prothero, A., Shultz II, C. J., & Stanton, J.: Who are organic food consumers? A compilation and review of why people purchase organic food; *Journal of Consumer Behaviour*, 6, 2007
7. Loureiro, Maria L., Jill J. McCluskey, and Ron C. Mittelhammer: Will consumers pay a premium for eco-labeled apples? *Journal of Consumer Affairs* 36, 2000
8. Magnusson, Erik, and John A.L. Cranfield: Consumer Demand for Pesticide Free Food Products in Canada: A Probit Analysis; *Canadian Journal of Agricultural Economics* 5, 2005
9. Marchesini, Sergio, Hasimu Hulyeti, and Domenico Regazzi: Literature review on the perception of agro-foods quality; Paper Presented at the 105th EAAE Seminar 'International Marketing and International Trade of Quality Food Products', Bologna, Italy, March, 2005
10. Midmore, Peter, Simona Naspetti, Anne-Marie Sherwood, Daniela Vairo, Mette Wier, and Raffaele Zanolli: Consumers Attitudes to Quality and Safety of Organic and Low input Foods: A review. Report QLIF-Project No. FP6-FOOD-CT-2003-506358, 2005
11. Onozaka, Yuko, David Bunch, and Douglas Larson: What exactly are they paying for? Explaining the Price Premium for Organic Fresh Produce; *UPDATE Agricultural and Resource Economics* 9(6). 2006
12. Oude Ophuis, P.A.M. & Van Tripp: Perceived quality: a market driven and consumer oriented approach; *Food Quality and Preference*, H.C.M., 1995
13. Plassmann, H., O'Doherty, J., Shiv, B., & Rangel, A.: Marketing actions can modulate neural representations of experienced pleasantness. *Proceedings of the National Academy of Sciences of the U.S.A*, 105, 2008
14. Riccard Moser, Roberta Raffaelli and Dawn Thilmany-McFadden: Consumer Preferences for Fruit and Vegetables with

- Credence-Based Attributes: A Review; *International Food and Agribusiness Management Review Volume 14, Issue 2*, 2011
15. Roosen, J., Marette, S., Blanchemanche, S., & Verger, P.: The effect of product health information on liking and choice. *Food Quality and Preference*, 18, 2007, p.759-770
  16. Silva, Andres, Rodolfo M. Jr. Nayga, Ben Campbell, and John Park: On the Use of Valuation Mechanisms to Measure Consumers' Willingness to Pay for Novel Products: A Comparison of Hypothetical and Non-Hypothetical Values. *International Food and Agribusiness Management Review* 10(2), 2007
  17. Tan, S. C.: Determinants of eating quality in fruit and vegetables. Proceedings from the Annual Conference of the Nutrition Society of Australia, 2000
  18. Travisi, Chiara M., and Peter Nijkamp: Valuing environmental and health risk in agriculture: A choice experiment approach to pesticides in Italy; *Ecological Economics* 67(4), 2008
  19. Zanoli, Raffaele, Martine François, Peter Midmore, Katerine O'Doherty-Jensen, and Christopher Ritson: Determining consumer expectations, attitudes and buying behaviour towards "low input" and organic foods. Paper Presented at 3rd QLIF Congress: Improving Sustainability in Organic and Low Input Food Production Systems, University of Hohenheim, Germany, March, 2007
  20. Zanoli, Raffaele, Martine François, Peter Midmore, Katerine O'Doherty-Jensen, and Christopher Ritson: Determining consumer expectations, attitudes and buying behaviour towards "low input" and organic foods. Paper Presented at 3rd QLIF Congress: Improving Sustainability in Organic and Low Input Food Production Systems, University of Hohenheim, Germany, March, 2007