

## Review

# Consumers' perceptions of organic food in Australia and other countries: A review

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The demand for organic food has been rapidly increasing worldwide, because of an improvement in the awareness of environmental problems, and health concerns. Although the demand for organic food is increasing, the popularity of organic food is not widespread and the perception of organic food varies in the wide public. This review shows that in Australia and other countries, there have been variation in people's understanding of organic agriculture and organic food, and differences in consumers' attitudes, motivations and behaviours within consumer groups and in different places, although there have been basic similarities. Consumers' perceptions have probably changed over time. A large proportion of consumers have been identified as having an understanding of organic food as being grown without chemicals, but the level of knowledge has been variable. 'Health benefits' was the first and primary reason for purchasing organic food, while 'high price' was the key deterrent to purchasing organic food. There have been various and even opposite findings related to the relationships between organic food consumption and personal elements such as age, gender, income, education, household with children and household size. In some countries, there was no link or minimal link, but several links was found in others. Although most consumers exhibited positive attitudes towards organic products and expressed their purchase intentions, the level of their trust in organic labels and certifications are very important factors influencing purchasers' decision of buying organic food.

**Key words:** Organic food, consumers' perceptions, Australia.

## OVERVIEW OF THE DEMAND FOR ORGANIC FOOD AND THE ORGANIC FOOD MARKET GLOBALLY

The demand for organic food has been increasing rapidly worldwide. This is as a result of an improvement in the awareness of environmental problems, health concerns and a disquiet about genetically modified food (Dimitri and Greene, 2002; Hughner et al., 2007; Tregear et al., 1994). The growth of this demand has caused the organic food market to become more widespread rather than develop an increase of supply. The demand has meant that, at times, organic consumers have had difficulty finding enough certificated organic food (Halpin and Parkinson, 2004; Lyons, 2001). IFOAM report that the worldwide retail market for organic food was \$US38.6 billion in 2006, which is more than double that of 2000 and the growth has increased in the following years (Sahota, 2008).

While consumption of organic food in North America and Europe comprises 97% of global revenues, Australia, Asian and Latin American were important producers and exporters in 2006. Europe contributes the largest global revenues of organic food and drink with about \$US20 billion, of which over 75% comes from Germany, France, Italy and the UK. Germany and the UK's organic food markets are the fastest growing in Europe. Although organic food in these countries is 'becoming widely available in supermarkets, discount stores and drugstores', the supply shortages are stunting the markets' growth. Australia and New Zealand are the leading organic product exporters with important exports being organic beef, lamb, wool, kiwi fruit, wine, apple and pear. As there is a steady development in the internal

organic markets in these countries, the portion of the total organic production which is exported is declining, although the amount continues to grow (Sahota, 2008).

### THE PROGRESS OF RESEARCH ON ORGANIC FOOD

The term 'organic' was first used, in relation to farming, by North Bourne in 1940. He referred to organic inputs such as compost as well as the concept of managing a farm as an integrated, whole system (Lotter, 2003). Another definition was based on the Codex Alimentarius, and it refers to 'the full organic and biodynamic supply chain from inputs to manufactured goods, as well as cultural and social aspects of the movement, not just on-farm production aspects (Kristiansen and Merfield, 2006). After a long process that started in 2005, the World Board in March 2008 approved the following definition: "Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved" (IFOAM, 2008). This definition reflects organics' true nature and the principles of organic production in a concise way.

According to Allen and Albala (2007), organic foods are foods that are produced using methods that do not involve conventional inputs such as synthetic pesticides, chemical fertilizers, sewage sludge or genetically modified organisms (GMOs). Organic foods are also processed without using irradiation, industrial solvents, or chemical food additives.

Magkos et al. (2006) showed that massive exposure to pesticides can negatively influence human health and food products, which have occasionally been contaminated with pesticides that can cause acute toxicity. These findings resulted in concerns about the safety of organic food, which have largely focused on pesticide residues (Magkos et al., 2006). However, it has been frequently noted in scientific literature that it is practically impossible to study and quantify the toxicity of foods regularly exposed to a small amounts of pesticides. Therefore, the difficulty in the study design has hampered consistent conclusions about the safety of organic foods (Magkos et al., 2006; Bourn and Prescott, 2002; Blair, 2012; Canavari, 2009; Rosen, 2010).

From scientific knowledge of the health benefits of a diet of organic food, it is difficult to conclude whether there are any beneficial or detrimental health results from such a diet. Based on their 2012 meta-analysis, Smith-Spangler et al. (2012) noted that there have been no long-term studies about the health outcomes of populations consuming predominantly organic food as against conventionally produced food used for controlling

socioeconomic factors; such studies would be expensive to conduct. Similarly, a 2009 meta-analysis stated "Most of the included articles did not study direct human health outcomes. In 10 of the included studies (83%), a primary outcome was the change in antioxidant activity. Antioxidant status and activity are useful biomarkers but do not directly equate to a health outcome" (Dangour et al., 2009). However, consumers may still choose to buy organic fruit, vegetables and meat because they believe them to be more nutritious than other food.

From a study of nutrients in organic food, Magkos et al. (2006) indicated that the nitrogen content in certain vegetables, especially green leafy vegetables and tubers, has been found to be lower when grown organically as compared to conventionally grown vegetables. In addition, when evaluating environmental toxins such as heavy metals, the USDA has noted that organically raised chicken may have lower arsenic levels than those raised conventionally (Gold, 2011).

### AUSTRALIAN DOMESTIC ORGANIC MARKET, STANDARDS AND CERTIFICATION

Despite the fact that organic fresh food including fruit, vegetables, milk and beef have the most sales in the Australian domestic markets (Sahota, 2008), only beef has been recently studied (Wynen, 2006 in Wynen, 2008). By 2005, the estimated value of certificated organic beef had doubled from that in 2000/2001 to around \$AU 60 million (farm-gate prices). Biological Farmers in Australia (2008) showed that the farm gate value of beef was estimated to be over \$AU 231 million in 2007 which is an 80% increase of the 2004 figure. However, the current market figures are not available.

The price premium of organic production is significant over that of conventional production. The average of price premium of all organic goods was calculated as being 80% compared to conventional goods. Some organic produce receive over 100%. This includes whole meal flour, muesli, olive oil and several vegetables (beans, carrots, zucchini), hard cheese and minced beef (Halpin and Brueckner, 2004). The organic food pricing has continued to be the main obstacle for consumers' demand and has influenced the market's growth (Batt and Giblett, 1999; Lea and Worsley, 2005; Lockie et al., 2002; Pearson, 2001; Turnbull, 2000).

Organic certification is the key which ensures that what consumers purchase is actually organic. The National Standard for Organic and Biodynamic Products provides a framework for Australia's organic industry. Currently, Australia has seven organic certification bodies that are accredited by AQIS to implement the Standard. These include ACO, AusQual, BDRI, NASAA, OFC, SFQ and TOP. They have their own standards, but they comply with The National Standard and with the principles of food production of high nutritional value, the

enhancement of biological cycles in farming systems and co-existence with, and the protection of, the environment (Organic Guide, n.d.; Wynen, 2008).

The Australian government has had the National Standards for Organic and Biodynamic Products since 1992. The Standard, however, is used only for the purpose of exporting products, and is not legally required for identifying organic products for the domestic markets (Lovisolo, 1997; Lyall, 2001; Willer et al., 2008; Wynen, 2008). Also, 'although the Standard was originally intended to provide importers of Australian organic produce with certainty regarding authenticity, over time it has become the default domestic standard' Organic Guide, n.d.). Additionally, due to WTO rules for national treatment of imported goods, products labelled organic but which may or may not be produced according to the Australian standard cannot be prohibited by the Australian government (Wynen, 2008). As a result, food called 'organic' or 'certificated organic' sold in Australian markets, may not necessarily meet the National Standard.

These problems may influence the consumers' perception of organic food, their trust in it and the growth of the organic domestic market. This matter is in accordance with Chang and Zepeda (2005) who stated that Australian consumers are concerned about organic food recognition, organic certification and product integrity.

## **UNDERSTANDING OF ORGANIC AGRICULTURE AND ORGANIC FOOD**

The consumers' knowledge of the term 'organics' has changed overtime. In 1999, following a pilot survey in Western Australia, Batt and Giblett (1999) state that only a half of respondents believed organic fruits and vegetables to be chemical free. A few years after that, the rate of consumers knowing the meaning of organics had increased, as most of the respondents (89%) knew that organic means grown without chemicals (Pearson, 2002) or is food grown without pesticides (Turnbull, 2000). However, Turnbull (2000) also reveals that some consumers still confuse the term organics, relating it to genetically modified foods and additives in food. That was seen as a lack of knowledge and trust. However, in 2005, consumers' understanding of organic food was greatly improved. They believed organic food is healthier and better for the environment than conventional food, free of chemicals, and had no pesticide residues (Chang and Zepeda, 2005; Lea and Worsley, 2005). Additionally, the participants also understood why organic food is highly priced than conventional food citing reasons such as lower yields, extra costs with regard to certification, small-scale production, controlling pests and diseases without chemicals, labor intensive, higher risks and scarcity; moreover, they thought that the price differential

was justified (Chang and Zepeda, 2005).

The knowledge of organics was likely to be different in different places, although most consumers have a positive outlook about organics. Using a mail survey in Victoria, Lea and Worsley (2005) found that the majority of respondents praised issues related to taste and nutrition of organic food rating it as taster and having more vitamins and minerals, but in Armidale, NSW which is a rural area, most participants emphasized issues associated with the physical attributes of food products (for example, wholesomeness and healthiness) and some consumers linked the organic production process to ideas such as 'growing in tune with', in harmony with nature', 'ethical', 'sustainable' and 'small-scale production' (Chang & Zepeda, 2005).

In other previous studies in other nations, a large proportion of customers have been identified as having an understanding of organic food, but the level of knowledge is still variable within countries and has probably changed over time. IGD indicates that, generally, British consumers' understanding of organic food was that it was healthier, safer to eat and environmentally beneficial as it was associated with a reduction in use of pesticide (IGD 2001, in Brown, 2002). However, 8% of respondents still believe that there was no advantage to eating organic food. In a later study in the UK, conducted as discussions, Harper and Makatouni (2002) found that 'all participants had a basic understanding of organic food' and a definition of organic food given was clearer when compared to the consumers' understanding in former research, but it was a different understanding. The beliefs are categorised into four groups: food content - 'organic food is food that contains no pesticides, hormones and GM ingredients; food production method - 'organic food is produced naturally, is home-grown food, and environmentally friendly'; food values - 'organic food is healthy and safe'; and organic food and social class - 'organic food is for higher socio-economic classes'.

There have been differences in the understandings of and interest in organic food in different countries, although there have been basic similarities. Most consumers in most countries believe organic food contains no chemicals, pesticides, antibiotics, hormones, genetically modified organism and is healthier, safer and environmentally friendly (Essoussi and Zahaf, 2008; Harper and Makatouni, 2002; Hartman Group, 2000; Raab and Grobe, 2005). Nevertheless, while British consumers are more focussed on health and environmental issues and concern for animals (Makatouni, 2002), Canadian consumers were also interested in the quality of organic food such as being tasty, nutritious, and fresh, lasting longer, as well as being labour intensive (Essoussi and Zahaf, 2008). Baker et al. (2004) indicate that German consumers emphasize health issues, enjoyment through taste and quality and

nature, whereas Italian consumers are interested in ecology, harmony with the universe and a sustainable future (Zanoli and Naspetti, 2002).

Although the knowledge of organic food has improved over time, there is a difference between consumer groups and some consumers are still confused and some have no understanding of organic food. IGD reports that 'almost half of all British consumers admitted to having a poor understanding of food production' (IGD 2001, in Brown, 2002). This was due to their having no interest in food production. In the UK, 'there was no difference in the perceptions of organic food among buyers or non-buyers' in general (Harper and Makatouni, 2002). In contrast, a clear variation existed between regular and non-regular consumers. Most Canadian regular consumers saw clear differences between organic and natural produce, while most non-regular buyers thought that organic was natural (Essoussi and Zahaf, 2008). While some British non-buyers were confused regarding the distinction between organic and free-range food, some Canadian consumers thought organic was just a buzz word, a new marketing device. Also, in a Greek countrywide survey, Fotopoulos (2002) indicates that one-third of participants seem to be confused with the distinction between organic and conventional food.

## PROFILING ORGANIC FOOD CONSUMERS

Most previous studies indicated that in Australia, about 40% of consumers have consumed certified organic food on at least one occasion (Biological Farmers in Australia, 2008). The National Choice Survey in 2001 found that a half of all organic food was consumed by less than 10% of the total population. That was the reason why the Australian organic food was considered as a niche market (Lockie et al., 2006). There was no link or minimal link between consumption of organic food, and gender, income, education and age (Lea and Worsley, 2005; Pearson, 2002; Smith 2003 in Wynen, 2008), but some contrary views were found.

From a survey and focus groups, Lockie et al. (2004, 2002) found evidence of a clear relationship between gender and organic consumption. While 44.1% of women respondents purchased certified organic food, only 33.8% of men participants bought this kind of food. Also, this research indicated that when people's income reaches about A\$35,000 per annum, the more money people earned the more organic food they consumed. However, people earning less than A\$20,000 per annum still bought organic food. Thus, although the premium price associated with organic products may make them less affordable for low income earners, low income earners are not necessarily less interested in consuming them (Lockie et al., 2004).

In addition, there are some contrasting results for the relationship between age and education, and the amount

of organic consumption. While some respondents in the research by Turnbull (2000) thought that they needed more healthy food when they became older, Lockie et al. (2004) found that older and more educated people were less likely to eat organic food, but that age and education had only a small negative effect.

Culture and lifestyle, and social and family factors showed as minor characteristics for identifying organic consumers. Some respondents referred to the Australian diet and their upbringing as under the heading of culture, as reasons for choosing organic food. Approximately 70% of the high consumption group stated that the Australian culture which included the changing Australian diet, medical conditions and environmental problems influenced their decisions to purchase. Also, those who have been influenced by social and family factors have more interest in purchasing organic food (Turnbull, 2000).

At the international level, most studies found that those who access organic markets are well-educated, high income earners, living in cities and concerned about their health. Magnusson and her colleagues (2001) state that Swedish respondents who had university education bought organic milk significantly more often than those who did not attend a university. Similarly, most of the Spanish participants, who participated in a research using an experimental second-price sealed-bid auction and had a lower degree - Elementary school education - bought organic virgin olive oil (Soler and Gil, 2002). In Romania, Lubieniechi (2002) indicates that people who have no financial restrictions were one of the two types of organic consumers. They can afford the price premium of organic food. The demographics of organic consumers in the US were more diverse than those of the countries mentioned above. Not only were they affluent and well-educated, but were characterized as Caucasian and concerned about their health and product quality (Lohr, 2001; Richter et al., 2000).

There have been various and even opposite research findings in different countries for organic consumption related to personal elements such as age, household size and households with children in different countries. While 42% of the US organic consumers were aged 18-29 years or in their 40s (Lohr and Semali, 2000), most of the Spanish participants, who bought organic virgin olive oil were aged between 50-64 years (Soler and Gil, 2002). In the US, many organic consumers are parents of young children or infants and this characteristic was considered as a reason for the organic industry's growth. In contrast, 'no significant differences were found between gender or age groups, or those with and those without children in Sweden' (Magnusson et al., 2001). From a 'Household budget survey' implemented by The Swiss Federal Statistical Office in 2002, Sanders and Richter (n.d.) also found no evidence for a higher consumption by families with children, but found that 'there is a clear tendency for large households to have a higher preference for organic

food than for single households'. While only 65% of single households consumed organic products at least once per year, 70% of households with more than 5 people purchased organic food regularly or occasionally.

In the US, many studies of organic consumer demographics found that 'the portrait of the typical organic food consumer has changed over time, reflecting the dynamic nature of the organic industry' (Carolyn Dimitri and Lohr, 2007). Richer et al. (2000) and Lohr (2001) found out that organic consumers were Caucasian, affluent, well-educated, and concerned about health and product quality. Some years later, Howie (2004) identifies that unlike previous years, organic consumers include those of colour – African-American, Asian- American and Hispanics – who purchase more than the general population. Also, half of those who had incomes less than \$ 50,000 bought organic food frequently.

### **Motivations for purchasing organic food**

The major determinant of purchasing this food and increasing organic food consumption has probably changed over time. Most of the respondents in Turnbull's (2000) study referred to taste as their motivation for consuming organic food. Also, 'better feeling' and 'quality' of organic food, the environment, health issues and fears were reasons for the consumption by some participants. Four years later, Australian consumers had concerns about organic food and interest in the 'naturalness of food' and 'the sensory and emotional experience of eating'. They were the statements of those who had purchased at least some organic food in the preceding 12 months (Lockie et al., 2004). Two other studies show that personal health issues were the most important motivation for organic consumption by Australian consumers. A lesser determinant was environmental concern (Chang and Zepeda, 2005; Lea and Worsley, 2005).

Furthermore, the motivations for buying organic food were likely to be different in metropolitan and rural areas. While Australian consumers in the metropolitan areas in Queensland and Victoria were interested mostly in the taste and the naturalness of organic food (Lockie et al., 2004; Turnbull, 2000), Armidale (NSW) consumers were concerned mostly with personal health and environmental issues. One special issue is the rural organic buyers' motivation of 'animal welfare' and 'protection of small farms and rural communities' (Chang and Zepeda, 2005), but the metropolitan consumers' motivation was related to other 'green consumption' behaviours such as recycling and convenience of the purchase and preparation of food (Lockie et al., 2004).

There were several other reasons for purchasing organic food, but they had a minor influence on consumers' shopping decision. For families with young

children, what the children would eat more strongly influenced which food was brought, than preferences of the adult purchasers (Chang and Zepeda, 2005). Additionally, religious beliefs (Turnbull, 2000), the food containing more vitamins and minerals (Lea and Worsley, 2005), and 'ecological values' (Lea and Worsley, 2005) had minimal effects on people choosing organic food.

The majority of previous studies in many other countries find that 'health benefits' is the first and primary reason for purchasing organic food (Leatherhead Food PA, 2000 in Brown, 2002; Essoussi and Zahaf, 2008; Fotopoulos, 2002; Harper and Makatouni, 2002; Hartman Group, 2000; Maria et al., 2003; Makatouni, 2002; Zanolli and Naspetti, 2002). Consumers in many countries believe organic food to be good for health because it contains no chemicals, pesticides, antibiotics, hormones or genetically modified organism – elements which have long term and unknown effects on health. Additionally, organic food is perceived as having quality and nutrition (Baker et al., 2004; Essoussi and Zahaf, 2008). Some studies have found that many consumers believe it is more nutritious than conventional food (Hill and Lynchehaun, 2002). One special point is that consumers felt organic food was better for children's health. This is likely to be a reason for the marked rise in the baby food market (Leatherhead Food RA, 2000 in Brown, 2002).

Improved taste, environmental protection and concern for animal welfare are mentioned as important motivations for buying organic food. These motives were ranked in different positions that probably depend on the type of organic product. However, they were evaluated as being the top three motives for consuming organic food by the US, Greek and Swedish consumers (Fotopoulos, 2002; Hartman Group, 2000; Maria et al., 2003). Makatouni (2002) found that, in the UK, the environment and animal welfare were believed to be important motives just after health. However, for dairy products, the consumers evaluated improved taste as the first motive for their purchases, while environmental concern was in fourth place and evaluated to be an unimportant motive for purchasing these products (McEachern and McClean, 2002). This was as the case in Canada, where 'environmental motives ranked fourth', for organic food generally (Essoussi and Zahaf, 2008). Contrary to the case in the UK, also for organic dairy produce, Swiss consumers gave the prime motive as animal welfare, and positive taste was of lower importance (Sanders and Richter, n.d.).

Some studies show that food safety is also a reason for the purchase of organic food (Hartman Group, 2000; Harper and Makatouni, 2002; McEachern and McClean, 2002; Soler and Gil, 2002). Twenty-four percent of respondents in McEachern and MacClean (2002) study show their concern for food safety as their second reason for buying organic food. They were notable for the respondents aged between 41 and 50. This may be due

to the appearance of recent food scares such as BSE (mad cow), food and mouth, Salmonella, Listeria and *Escherichia coli* 0157 outbreaks. These diseases have contributed to the increase in concerns about methods of conventional food production. Kouba (2003) indicates that consumers believe organic farming methods to be safer than conventional intensive farming.

Supporting local farmers and sustaining a traditional diet has been identified as a lesser important motive for buying organic food. Corsi and Novelli (2007) state that consumers believe organic purchasing is a way of helping local farmers. That is in line with Essoussi and Zahaf (2008). By buying organic food, consumers help local farmers to develop their businesses and support the local economy. It is likely that, the more local organic products are consumed the greater the local organic industry develops. Greek purchasers, as indicated by the study of Fotopoulos and Krystallis (2002), exhibit 'strong ethnocentric tendencies' as a purchase criterion.

Besides these, ethical motivation, diversity for diet and fashion are also consumers' motivation for entering organic food markets. Consumers perceived that organic food is produced more ethically than conventional food. With organic farming, animal welfare is important, for example, it is not acceptable to give cattle hormones (McEachern and McClean, 2002). In this research, some consumers linked their motives to diet. They saw the development of organic food as an opportunity for them to vary their diet. Hill and Lynchehaun (2002) found that several consumers view organic food to be fashionable, because it is in the media and promotional campaigns.

To conclude, there are many motivations for purchasing organic food, but the level of importance of each motivation differs among countries and groups, and probably changes over time. It seems that the motives related directly to people (for example, health and taste) are more important than the others (for example, the environment, ethics). This coincides with the judgement of Shepherd et al. (2005) who state the main reasons for the choice of both fresh and processed organic food to be health and quality (including taste) and is consistent with that of Hughner et al. (2003) who note that 'egoistic motives are better predictors of the purchase of foods than altruistic motives'.

### **Motivations for not buying organic food**

The most important reasons for not purchasing organic food were premium high price, lack of availability and convenience in the purchase and preparation of foods (Chang and Zepeda, 2005; Lea and Worsley, 2005; Lockie et al., 2004, 2002; Turnbull, 2000). Lea and Worsley (2005) also show that looking 'unappealing' or believing 'organic food to be a fad or risky for one's health' were extremely minor negative aspects of the organic consumption rate. The matter of being

'unappealing' may be due to 'poor handling and presentation' of organic products or can be an aspect of the products themselves. In addition, growing vegetables organically at home is another motivation for rural people, who are strong interested in organics, not to buy organic food from shops (Chang and Zepeda, 2005).

Similarly, high price, lack of availability and scepticism of labels and certifications are important reasons for rejecting organic food. Most studies have found that a high price is the key deterrent to purchasing organic food (Barry, 2004; Brown, 2002; Corsi and Novelli, 2007; Fotopoulos, 2002; Magnusson et al., 2001; Zanolli and Naspetti, 2002). Although consumers are willing to pay a premium for organics, they do not like to pay as much as the current price. However, Soler and Gil (2002) find that willingness to pay increases when consumers were provided with information about organic products and information about reference prices for conventionally produced counterparts. From a Greek countrywide survey, Fotopoulos (2002) identifies that over 80% of respondents thought lack of availability to be a main reason for not purchasing organic food. Scepticism about labels and certifications has influenced the decision not to purchase organic food. Some European studies have revealed that consumers distrusted certification bodies and the genuineness of an organic product's quality (Aarset et al., 2004; Corsi and Novelli, 2007). Besides this, several consumers stated that they were satisfied with conventional food; hence they had no valid reason for purchasing organics (Fotopoulos, 2002). In addition, a few non-organic buyers thought that the organic food appearance and quality was poor.

### **ATTITUDES AND BEHAVIOUR TOWARDS ORGANIC FOOD**

Almost all of the studies found that Australian consumers had positive attitudes towards organic products and expressed their beliefs in the health and environmental benefits of organic food. The advantageous attitudes of consumers regarding this kind of food were reflected in their purchase intentions (Smith and Paladino, 2008). Additionally, positive organic beliefs were found to be related to self-transcendence values. 'Specifically, personal values related to nature, environment and equality were found to positively predict pro-organic food beliefs, rather than values that revolve around meaning, spirituality, honesty, loyalty, social justice and helpfulness' (Lea and Worsley, 2005). Organic consumers were willing to pay a premium for safe and environmentally friendly foods and were also willing to consume more organic food if it was available (Lea and Worsley, 2005; Lockie et al., 2002). Lea and Worsley (2005) found that although generally, consumers had positive attitudes towards organic food, women, especially adults aged less than 40 years are more likely

than men to hold positive beliefs about this food.

According to Biological Farmers in Australia (2008), 40% of consumers bought organic food at least occasionally. Almost all organic food buyers, including both regular and occasional buyers, purchase organic fresh fruit and vegetables. Besides this, categories such as flour, cereal, dried fruits, nuts, and meat were bought, but was much less popular than the main products (Chang and Zepeda, 2005; Pearson, 2002). In a telephone survey, Lockie et al. (2002) found that there was only small proportion of the respondents who ate more than a little organic food (20.7% of the respondents), and that 59% of participants consumed only a little of this food. Just over 8% of the overall sample consumed organic food in half or more of their diet as organic food. The large numbers of those who ate a small amount of organic food (59%) can be seen as potential faithful consumers of this kind of food if their motivations were understood.

Most organic consumers in Armidale (NSW) (as rural area) who participated in the research had a positive attitude towards organics and wanted to purchase as much organic food as possible. However, there was still an existence of 'some skepticism among the participants about organic foods, especially in one group of conventional shoppers'. This skepticism was about organic certification and the possibility of sufficient food production without synthetic fertilizers and chemicals. Also, they had some doubts about organic farming and aspects of the production processes: these included the 'level of guarantee, the level of packaging, the distance of transport, the emergence of large corporate organic farms, the possibility of contamination from neighboring conventional farms, and the ability of organic farming to provide food security to a growing population' (Chang and Zepeda, 2005). The breadth of these concerns proves the strong interest of rural people in organic food and its growth.

Another noteworthy point is that although Australian consumers exhibited positive attitudes towards organic products and expressed their purchase intentions, some studies found that they were not willing or able to purchase in accordance with their attitudes. This may be because of the characteristics of participants. Smith and Paladino (2008) believe this is due to the fact that 'the students surveyed may not have had full control over household purchases and in addition, low income levels are likely to limit their purchases'.

Another study found that most respondents thought consumers should pay less than 20% of the premium that is used for the guarantee to produce organic food without synthetic chemicals and fertilizers, and to meet stringent safety standards. Some of the premium was believed to belong to relevant others such as governments, retailers and food processors (Lockie et al., 2004). Thus, the premium price is a key obstacle to the increase of organic

consumption.

Previous studies have found that a majority of consumers have a positive attitude towards organic food (Fotopoulos, 2002; Magnusson et al., 2001). Consuming organic food was rated to be quite or very good, important and wise by between 46 and 67% of all Swedish participants (Magnusson et al., 2001). Women, respondents with university education and those aged between 18 and 25 years, had a considerably more positive attitude than the others. 'Perceived health benefits were demonstrated to be more strongly related to attitude and behaviour towards organic foods than were perceived by environmental benefits' (Magnusson et al., 2003). In addition, interestingly, the most common consumers' belief about the consumption of organic foods was that they are more expensive (Magnusson et al., 2001).

Although consumers have had positive attitude towards organic food, their rate of purchase does not equal their attitude. Only a small proportion of Swedish consumers purchases organic milk, meat, potatoes and bread regularly.

A few consumers stated their intention to buy organic food (Magnusson et al., 2001). Among Greek organic food buyers, more than half bought only once a month or less (Fotopoulos, 2002). Sanders and Richter (n.d.) indicate that approximately 9% of milk consumption was organically produced and this was the highest fresh produce of organic purchase. The reason is that 'organically produced' is considered to be an important purchase criterion and this seems to be their habit with conventional food (Shepherd et al., 2005).

'Willing to pay' premium price has depended on consumers' price perception. From an experimental second-price sealed-bid auction in Spain, Soler and Gil (2002) found out that there were two stage processes in consumers' willingness to pay. In the first stage, the consumer decision for paying a premium was strongly influenced by their attitude towards the environmental impact on agriculture.

A strong relationship seems to exist between price perception and attitude, and 'willing to pay' in the second stage. This research concludes that the consumers 'willing to pay' increases as they think organic food products have to be more expensive.

There has been a difference in organic food priority in different countries. While Greek consumers bought mostly tomatoes (50.8%) (Fotopoulos, 2002), Swiss mostly purchase milk (Sanders and Richter, n.d.) and the US buyers preferred dairy products (Demeritt, 2004). Furthermore, consumers also have chosen different kinds of shop. Canadian regular consumers were reluctant to buy organic food in grocery stores (Essoussi and Zahaf, 2008). However, a range of Italian consumers used both mixed and exclusive butchers, but preferred exclusive ones (Corsi and Novelli, 2007).

## RECOGNISING ORGANIC FOOD, LABELLING AND CERTIFICATION

Some studies investigated Australian consumers' perception in terms of organic certification and labels. This issue was linked with trust in the honesty and reliability of labels, because of organic characteristics. Trust was the main influence to identify organic food (Turnbull, 2000). It relates not only to certification and labels, but advertisers and shopkeepers. Consumers buy organic food with the certification and labels they know and believe in credible shops. Therefore, developing a visible authoritative presence in the food system will strengthen trust and provide reassurance to consumers. There was still skepticism regarding organic labeling among Australian consumers (Lockie et al., 2002). This may be due to the consumers' lack of understanding of existing certification schemes for organic growers and processors. Consumers were confused about certification, labels, trademarks and logos (Chang and Zepeda, 2005). However, an increase in the 'availability of processed organic products' and 'the images of wholesomeness and non-industrialised production methods' has caused a growth in consumers' belief in such products (Lockie et al., 2002).

In other countries, consumers recognise organic food through signs and characteristics. Essoussi and Zahaf (2008) indicate that almost half of Canadian respondents recognized organic food because of its higher price. Labels (certified stickers) on products were important in recognizing organic food. When seeing the labels, consumers felt these products to be 'a lot better' and 'a lot safer'. Some consumers compared organic with GMFs in terms of appearances. They thought GMF looked pretty and shiny, while organic look dull. Also, organic food has better taste because of more nutrients.

Previous studies have found that consumers still suspect the genuineness of organic food. A number of Canadian non-regular consumers distrusted what organisations or corporations say (Essoussi and Zahaf, 2008). A third of respondents thought the lack of specialty stores lead to the consumption difficulties. These consumers were not happy to buy organic food in grocery stores, even though when they saw certificated labeling. The reason for this was that they did not have information about the process of certification and even they did not trust some certification bodies. Additionally, Greek consumers seem confused 'in relation to the existence of organic preferable brand' (Fotopoulos, 2002).

## CONSUMERS' EXPECTATION ON FUTURE ORGANIC FOOD

Although Australia is a leading importer of organic products, not much is known about the Australian consumers' expectation of future organic food, because

little research on this issue has been conducted and published. Similarly, there are not many studies focusing on consumers' expectation of organic food in the future in other countries. Most previous studies have mentioned consumers' demand for information about the production, processing and certification of organic food.

Consumers often buy the same organic products because they appreciate sensory information the first time they choose the products. The information that consumers require are those that indicate organic quality and organic processing techniques. Therefore, sensory marketing information is likely to be very useful, and more attention needs to be paid to this area to involve consumers and to expand their experiences (Hanna et al., 2010). Hanna et al. (2010) also stated that people have a desire to experience natural and authentic organic food, but consumers are very skeptical that such information is provided as a marketing tool. Building trust is a vital matter for organic producers and retailers. However, apart from ensuring the marketing tool has trustworthy information, it is necessary to consider other potential instruments such as symbols and images in order to meet the needs of different expectations and preferences.

Organic consumers believe that the use of natural ingredients contributes not only to individual health and wellbeing but also to broader social and environmental goals, which benefit the community as a whole. However, this is very difficult to evaluate, and people's wishes related to beliefs and principles in socio-economical and environmental contexts are often vague. However, for some consumers of organic food, the "feel good" factor is crucial in their purchasing decisions (Padel and Midmore, 2005; Ridson and Brennan, 2008; Zanolli et al., 2007). In addition, Karen et al. (2002) indicated that for convenience, organic foods will usually require a higher degree of processing which is a major component of consumer interest, in that "the higher the degree of processing, the lower the degree of consumer interest in organic products".

## CONCLUSION

There have been many studies associated with consumers' perceptions of organic food and expectation on future organic food, but this matter has not been investigated in all countries in the world; studies have concentrated on European and American areas. These studies have focused mostly on demographic characteristics such as consumers' profile, motives and opinion of market factors. These studies have analysed consumers' attitude and behaviour, but the cause for the variation of groups' views and the factors influencing attitude and behaviour has not been clarified.

This research shows that the consumers' perceptions of organic food have changed over time and these vary in



different countries and in groups within a country. Although most consumers had positive attitude towards organic food, they were not able or willing to purchase it at a premium price. The lack of information about the certification process, lack of trust in certification bodies and in specialty stores has led to the consumers' concerns. Nevertheless, 'purchasing certificated organic food is one way for consumers to get information about non-observable food quality aspect' (Torjusen et al., 2001).

There have been many studies carried out with respect to consumers' perceptions of organic food. However, these studies have focused mostly on demographic characteristics such as consumers' profile, motives and opinion of market factors. These studies have analysed consumers' attitudes and behaviour, emphasising how the consumers are willing to pay the premium price and their trust in organic labels. However, consumers' interest in organic food and confidence with the claimed benefits of organic food, as well as other relevant relationships has not been clarified.

The Australian consumers' knowledge about the term 'organics' has changed over time and it was different in different places, although most consumers have a positive outlook about organics (Chang and Zepeda, 2005; Lea and Worsley, 2005). Also, the consumers' attitudes, motivations and behaviours were different in places and time. Additionally, there are some contrasting results for the relationship between age and education, and the amount of organic consumption.

There was little research on consumers' perception of organic food conducted in Australia (Wynen, 2008). Most previous researches of consumers' perceptions, especially consumers' motivation, have concentrated on the metropolitan areas of Queensland and Victoria, although only two researches were carried out in a rural community in New South Wales. There has been no research on consumers' perception of organic food in peri-urban areas.

Most of the previous studies in Australia have focused mainly on demographic characteristics such as consumers' profile and motives. These studies have analysed consumers' attitudes and behaviour, only emphasising how the consumers are willing to pay the premium price and their trust. Consumers' interest in organic food and confidence with the claimed benefits of organic food, as well as the relationships between frequency of purchasing organic food and factors has not been explored.

Australian consumers are still concerned about organic food recognition and organic certification, but they buy organic food with the certification and labels they know. The consumers are confused about certification and labelling. Furthermore, no study mentioned the existing organic certifications and their relationship with the frequency of purchasing organic food.

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