

**Research and Education of health  
professionals relating to the health  
benefits of almond consumption**

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Almond Board of Australia (ABA)

Project Number: AL11004

## **AL11004**

This report is published by Horticulture Australia Ltd to pass on information concerning horticultural research and development undertaken for the almond industry.

The research contained in this report was funded by Horticulture Australia Ltd with the financial support of Almond Board of Australia (ABA).

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ISBN 0 7341 3043 0

Published and distributed by:  
Horticulture Australia Ltd  
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Sydney NSW 2000  
Telephone: (02) 8295 2300  
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**Final Report**

**Project AL 11004**

**Educating Health Professionals as to the Health Benefits of  
Almond Consumption**

**August 2012**



HAL Project Number: AL11004

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Purpose of the Research: Educating Australia's key health professionals will lead to an increase in consumption of almonds and contribute to significant health benefits in the areas of weight management, heart health and diabetes for Australians.

Funding sources: Horticulture Australian Limited and the Almond Board of Australia

Date of the Report: 30 August, 2012

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## 1. Media Summary:

The next 4 years will see Australia's almond production more than double, resulting in the national almond crop increasing from 38,300 tonnes to 80,000 tonnes per annum. In 2012, the crop increased to 50,000 tonnes. The industry crop value will increase to more than \$500 million by 2015. Profitably absorbing this rapid growth in supply requires major industry commitment and vision in researching, developing and maintaining our domestic and international markets. This project is a key in the industry's strategic long-term vision for growing the almond industry by educating health professionals who in turn advise Australians on the nutritional value and health benefits of almonds in their diets in the areas of weight management, heart health and diabetes.

This has been a core platform to growing recognition of the attributes of almonds. The role of the major health professions in supporting these health benefits cannot be overestimated. The health contributors to both the traditional and online media come from these health professions, particularly from the professions of nutrition and dietetics.

It is essential that the almond industry communicates effectively with the key health professions as to the key nutritional benefits of almonds as it assists in their ability to educate and also to refute misconceptions that can arise within the community. The leading myth that needs to be addressed relates to the high fat content of nuts. There is still a significant number of doctors and dietitians that do not differentiate between different types of fat in food, but group them all together in a category to be avoided or minimized.

## 2. Introduction:

The Australian almond industry' program of educating health professionals began in 2008. It plays a core role in the industry's long-term strategy to grow demand for Australian almonds.

Project AL11004 built upon the achievement of the previous work by communicating with the key health professions of dietetics, general practice and fitness and sport coaching.

Dietitians remain the 'idea leaders' within the nutrition space. Educating members of this profession is important as they not only communicate their ideas to the people they see in clinical practice, but they are most frequently the key media contributors in the area of nutrition.

Doctors in general practice engage with more Australians on an annual basis than any other health profession. Given the increasing significance of lifestyle related illnesses such as diabetes, there is more attention being given to important health issues such as nutrition. There is a significant opportunity for the Australian almond industry to add value to GP's by the provision of succinct and powerful educational resources.

Fitness trainers and sports coaches are growing in influence. However, the nutritional education of many of these people is not strong. The Australian almond industry's educational program can add value by communicating its key nutritional messages in an easy to understand way supported by a tailored range of educational material.

While the program has segmented its key audiences by profession, AL11004 has moved to also segment its content by the key health benefits almond consumption offers. These benefits are: almonds as a healthy after-school snack; almonds as a sports recovery snack; almond and healthy weight management; and almonds for heart health and the prevention of diabetes. These major claims resonate most strongly to people at different stages of life and so the almond education program needs to communicate with the health professionals who have most influence with them.



### 3. Methods and Materials:

#### 1. Research and Information:

A number of key research studies and information gathering activities were undertaken during the AL 11004 project that have advanced our knowledge of core nutritional issues and have built upon the research base developed through HAL supported R&D initiatives.

- Scientific Research

Sara Grafenauer, an Accredited Practising Dietitian and lecturer at the University of Wollongong, completed a comprehensive review of the latest nutritional studies into the relationships between eating almonds and heart health, diabetes and weight management.

While there is growing evidence of the positive link between almonds and the prevention of diabetes, the most significant body of nutritional science relates to the role of almonds in lowering LDL cholesterol, which is an important bio-marker for heart disease. One of the most important findings around almonds and heart health remains the relationship between the quantity of almonds consumed and the likelihood of heart disease: namely, “with each 7 gram serve of almonds, there is a 1% reduction in LDL Cholesterol and a 2% reduction in the likelihood of cardio-vascular disease”.

Lisa Yates, an Accredited Practising Dietitian, completed a desk-research study of the nutritional comparison of natural and dry roasted almonds. This study identified that “dry roasted almonds improve total and LDL cholesterol as well as raw natural almonds in humans”. Further, the study identified research that concluded: “Roasted almond skins contain antioxidants and have a higher antioxidant capacity than natural almonds”. There are also significant benefits of dry roasting almonds that related to taste, flavor and crunch. Identifying enjoyable forms of almonds will encourage health professionals to recommend them across their broad client profile.

Another area of importance to our nutritional education program relates to the role of almonds as a healthy after-school snack. The Australian almond’s health program’s dietitian, Sara Grafenauer, developed a research study that was conducted by Newspoll. This study surveyed 347 respondents (over the age of 18) who were the parents or guardians for children aged 5 to 17 years. The research compared the respondents’ perceived nutritional value of the snacks they gave their children to take to school and the snacks their children consumed after school. The research identified a significant disconnect between the respondents’ perceptions and the findings of an earlier study which looked at the actual foods being consumed by children after school.



This Newspoll survey found that 19% of respondents perceived their children's after-school snacks to be more nutritious than the foods eaten at school; 11% perceived their after-school snacks to be less nutritious and 65% perceived them to be the same. However, in another research paper developed by our program dietitian, Sara Grafenauer, the results of the 2007 Australian National Children's Nutrition & Physical Activity (ANCNPA) Survey were analysed in the context of the perceptions of the respondents to our Newspoll study. The 2007 ANCNPA survey found that Non-core foods or 'Extras' contributed 35% of the children's total energy consumption. This is twice the level recommended. Grafenauer's conclusion from the results was that most of the foods identified in the survey "would be from home or shops outside of school, ie after school or weekends. This issue of healthy after-school snacking is particularly important to the Australian almond industry as it offers the opportunity to assist parents with a good tasting, nutritional snack in a safe environment from an allergy perspective: the family home. Given the growing propensity for schools to ban nuts, developing a compelling proposition for parent to give almonds to their children at home after school is an important opportunity to grow almond consumption. Finally, the Newspoll survey indicated that the respondents perceived that there was significantly less media attention given to after-school snacking than school lunches. The ongoing task of the Australian almond industry's Education of Health Professionals program will be to raise the importance of healthy after-school eating habits.

- **Data Collection**

There have been several important streams of data that have been collected during project AL 11004 including the global product database Datamonitor, and relevant media articles.

Three of the key themes within the Datamonitor research that have been part of the Education of Health Professionals program were: functional health, natural energy and fitness and protein-boosted foods. These themes have been particularly relevant to the dietitians and fitness professionals that have been involved in AL 11004.

One example of a product leveraging a functional health claim is the Canadian brand, "Jamba" with its "Probiotic Power" product.

The 'Fit' brand from the Czech Republic highlights the role of nuts and fruit, including almonds in providing natural energy and fitness. Jamba also launched a similarly positioned product. Falcofoods from Italy launched its Vis Protein Bar range featuring almonds.



All three themes are particularly important to the Australian almond industry’s health and nutrition education program as they related to the key issues of ‘sports recovery’ and ‘after-school’ snacking. They raise the issue of using natural horticultural foods such as almonds, bananas and oranges to compete with the highly processed energy and protein products being promoted heavily in the Australian food market.

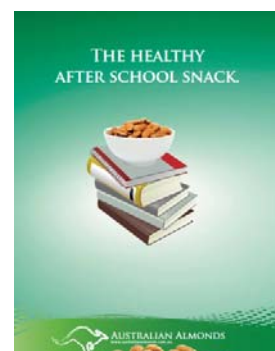
• **Educational Resources**

Project AL11004 has facilitated the development or enhancement of a range of key educational resources that have underpinned the Australian almond industry’s educational program of health professionals.

A new heart-shaped four-page fact sheet was developed to concisely communicate the latest research into three key health issues: namely heart health, preventing diabetes and healthy weight management.

The Australian almond industry’s ‘Sports Recovery’ fact sheet was revised and extended into specific sporting environments such as cricket and netball. The key contributor to the development of these materials was Kerry Leach, one of Australia’s most eminent sports dietitians. Kerry consults to the Queensland Firebirds netball team, Brisbane Broncos Rugby League team and the Brisbane Roar soccer team.

Educational material has also been developed for the ‘after-school’ snacking concept. The Australian almond industry’s program dietitian, Sara Grafenauer, developed a fact sheet that was utilized at several health professional conferences during AL 11004.



## 2. Dissemination and Presentation to Target Audiences.

A key component of the Australian almond industry's Educating Health Professionals project is the communicating at major health conferences for doctors, dietitians, sport and fitness advisors and teachers. This program is complemented by the communication of our key messages on the websites and e-newsletters of the program's major professional partners: namely the Dietitians Association of Australia (DAA), Sports Dietitians Australia (SDA) and General Practice Registrars Australia (GPRA). The ongoing requests received from members of these professional organizations for our education packs that include the 30gm heart-shaped almond tins highlight the effectiveness of these communication activities.

During AL11004, Australian almonds exhibited at the following major health conferences:

- GPCE Sydney
- RACGP (Royal Australian College of General Practitioners)
- International Congress of Dietetics (organized by the DAA)
- Annual conference for General Practice Registrars Australia
- The "Nutrition in Medicine" Conference
- Sports Dietitians Australia's biennial conference
- FILEX (fitness trainers professional conference)



Satchel inserts were also provided to:

- The annual conference of ACHPER South Australia (physical education teachers association)
- Diabetes South Australia

A key method of engagement with health professionals has been to develop and distribute educational packs that help them communicate the key nutritional messages to their own patients and clients. These packs include brochures, fact sheets and tins of almonds to giveaway. The 30gram heart-shaped tin remains a highly effective educational tool as it effectively communicates the portion size recommended by dietitians as well as conveying its clear heart-health benefits.

#### **4. Results:**

A key result of project AL 11004 was the active engagement with thousands of doctors, dietitians and fitness and sports leaders. Over the seven major health conferences, more than six thousand educational packs including brochures, fact sheets and heart-shaped snack tins were distributed to the participants of these events.

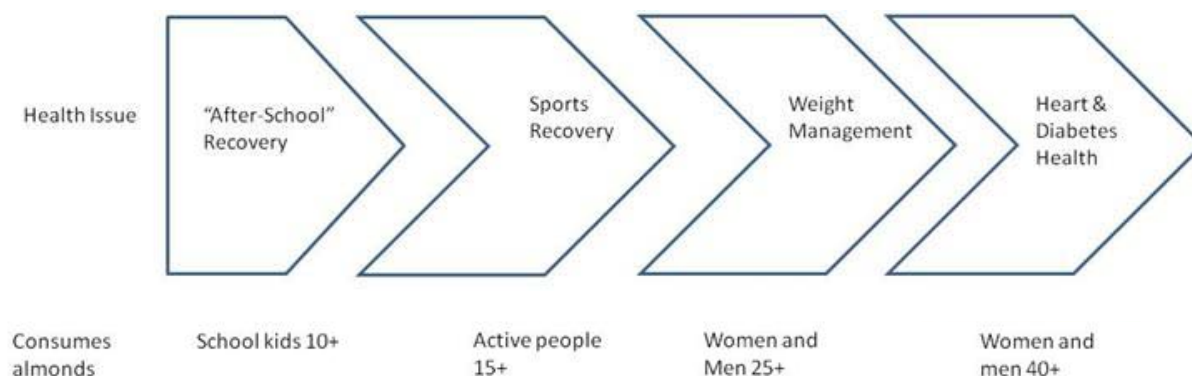
This engagement has created a very valuable asset in a database of more than three thousand health professionals who have requested additional educational material and want to receive periodic research updates.

These results have been achieved due to the credibility and interest the program has developed from the previous HAL supported Educational programs. At most conferences, visitors to our stands brought other colleagues to introduce them to our educational material and products. Also, there was significant feedback, particularly from the General Practitioners, that they are more pro-active in giving the Australian almond industry's educational material to their clients. This also is due to the consistency of our participation in their conferences over a number of years and the ongoing level of engagement with their professions.

Another key result of AL 11004 was the development of the 'Life Stage' approach to nutrition. This approach segments the major nutritional benefits of eating almonds by our different stages of life.

Our previous HAL supported Health Education programs gathered highly credible research in relation to the heart health benefits of eating almonds. This has been

complemented by research into the positive role almonds can play in preventing diabetes. We know that these issues resonate most powerfully with men and women over 40 years.



We have also emphasized the role of almonds in helping people achieve healthy weight management. This is to counter the prevailing perception that high-fat foods are to be avoided or reduced as much as possible when trying to lose weight. The Australian almond industry's health education program has found that the somewhat 'counter-intuitive' view that almonds can positively assist with healthy weight loss resonates with people over 25 years. We have focused our educational efforts on the key health professionals who influence these people, namely doctors and dietitians.

One of the major educational initiatives within the previous Educational Program AL10015 was the positioning of almonds as an important sports recovery snack. These insights were provided by practicing sports dietitians who are currently recommending almonds for this purpose to their athletes. Bianca Chatfield, a current Australian netball player and member of the Melbourne Vixens, has been assisting with the development of the resources being utilized in this program. The target health professionals for this 'sports recovery' program are sports dietitians, fitness trainers, and physical education teachers.

The current project – AL11004 – resulted in the development of a new health position for Australian almonds: a healthy after-school snack. This position was developed by our program dietitian, Sara Grafenauer, and a number of her colleagues who have deep clinical expertise in pediatric nutrition. One of the key issues facing the almond industry in particular and the Australian nut industry in general is the increasing number of schools that do not allow any nuts to be included in the children's lunch boxes. There is a danger to the Australian almond industry that if this trend continues, then almonds could lose its relevance to both children and their parents.

The Australian almond industry's solution is to focus on the 'after-school' eating occasion. This approach is responsible from an allergy perspective as it is only encouraging the consumption of almonds in the 'allergy-safe' environment of home. Parents with an allergy issue in the family would simply ignore the suggestion.

However, more than 90% of households do not have a nut-allergy issue. This means the 'after-school' snacking position has mainstream potential. The key health profession that will be the ongoing audience for the after-school snacking message is dietetics. Dietitians and nutritionists not only personally consult to parents and children, but are the most frequent media contributors in the area of pediatric and adolescent nutrition..

## **5. Discussion:**

A key learning from AL 11004 is the value of building on past work and achieving significant results through consistency. The growing database of doctors, dietitians and fitness trainers is a direct result of previous HAL-supported Health Educational programs. This health professional space is very crowded with many companies and organizations striving to be heard. Yet within this environment, literally thousands of GP's, dietitians and fitness professionals are requesting the Australian almond industry send them educational packs, not only for themselves, but so that they can give them to their clients and patients. Australian almonds' position as a natural horticultural product that has genuine science-based health benefits and is good tasting is gaining both their acceptance and recommendation.

Another key learning is the importance of continually developing new research to present to our key health professional audiences to maintain and grow their engagement. An example of this development has been the reaction of the health professionals who have been engaged in the new work on almonds as a healthy sports recovery snack and as a good after school snack. In both instances, the research findings developed during AL11004 have identified areas of need and contributed towards a healthy natural-food solution. In the area of 'sports recovery', dietitians are concerned about the rapid rise in the use of highly processed protein shakes and foods as they are not necessary for the majority of people who consume them. A handful of almonds, which provides the protein equivalent of an egg, is a good natural protein alternative. After-school snacking is also an important issue because while more non-core foods are consumed outside of school, media attention is more heavily weighted towards preparing health snacks for the school lunchbox.

The Australian almond industry's Education Health Professionals carefully monitors international nutritional research and presents relevant findings to Australian health professionals.

The industry's program dietitian, Sara Grafenauer, summarises the strengths and limitations of each new study and identifies the key learnings that are applicable to the Australian health professional audiences. One example of this was the recent US-based research into the digestibility of almonds. The research found that almonds contained 20% less calories than the nutritional label, calculated by the Atwater Factors, currently states. This research was communicated to a number of dietitians at the most recent dietitians conference. The Australian almond industry will produce a fact sheet on this issue that is validated by Australian health professionals who are satisfied with the research's methodology and findings.

Project AL 11004 – Educating Health Professionals in the nutritional benefits of eating almonds – has played a key role in helping grow the Australian almond industry. The reality is that the Australian almond industry is competing against significantly larger processed food competitors in the various processed food categories. Note, other horticultural or nut products are not the key competitors. Rather, the biscuit, cake and chip brands are the real competitors for Australian's 'share of stomach'. The Australian almond industry's best and most cost effective strategy is to educate members of the key health professions to become advocates of healthy, natural, plant-based foods such as almonds. One of the learnings of AL 11004 is that this advocacy includes communicating both with their peers and with their patients and clients.

## **6. Technology Transfer:**

The progress and insights of the Australian almond 'Educating Health Professionals' program are regularly communicated to the key stakeholders with the almond industry. The key means of communication include: the industry magazine 'In a Nutshell'; the annual industry conference; and a quarterly industry e-newsletter.

Presentations are also made to key stakeholders within the Australian almond industry's supply chain that highlight the core nutritional benefits of almonds as well as the latest research findings.



## 7. Recommendations:

Educating members of the key health professions, namely dietetics, general practice and fitness/sport, remains a vital area of activity for the Australian almond industry. This is due to the role that good nutrition plays in improving the health of Australians.

Our education program needs to deliver the relevant message to each health professional audience. These messages will revolve around our 'life-stage' approach to almonds and nutrition.

The broad theme of 'Recovery' encompassing snacking after school and after sport is a major opportunity to engage with health professionals involved in pediatric and adolescent nutrition. The next step is to develop a multi-disciplinary approach to this topic involving members from a range of health professions: dietetics, sports nutrition, fitness training and adolescent psychology. There are eminent psychologists who are very committed to the importance of good nutrition to achieving the best possible academic results.

The other broad theme of 'heart health' remains a core educational objective. This theme will also incorporate the latest research findings on the prevention of diabetes and the achievement of healthy weight. It is imperative that the Australian almond industry not take its current 'heart healthy' status for granted but continue to educate and communicate its credentials in this area. The objective of being 'top of mind' with our key health professionals requires consistently communicating the key nutritional messages.

One area of focus during the next phase in this program will be to understand and leverage social media communication in the ongoing education of health professions. There is an increasing trend for people to look to social media for professional education. The next phase in the Australian almond's Educating Health Professionals program will need to examine opportunities to become engaged in this environment where ideas and opinions are exchanged and developed.