

# The protein transition

A GROWING OPPORTUNITY FOR AUSTRALIAN VEGETABLE GROWERS

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**Plant-based foods, including vegetables, have long been recognised as central and important to healthy diets.**

This importance is only growing as food systems respond to major health and demographic pressures, such as growing and ageing populations. In addition, in high income countries such as Australia, more and more health organisations and researchers are increasingly promoting eating patterns that are not only nutritious, but also environmentally sustainable.

A shift towards eating more healthy plant-based foods, supported by government policy, changes within food service, and facilitated by changing consumer behaviour, has the potential to benefit industries related to the production and sales of plant-based foods.

Against this backdrop, Deakin University recently received funding through the vegetable levy via Hort Innovation (VG24004) to investigate the transition to more plant-based foods in the diet, with a particular focus on protein intake in older adults.

Protein has gained growing attention across the food system, with strong emphasis on protein-rich and high protein diets. This is clearly visible in supermarkets, where protein enriched foods have expanded rapidly over the past decade. This is due to increased evidence that protein is beneficial for those who want to gain strength, as well as a general increased interest from consumers who are health focussed.

While much of this growth has focused on animal proteins or extracted plant protein ingredients, such as soy protein isolate, it highlights a clear consumer message: protein is viewed as functional, valuable and essential for health.

**For growers of plant-based foods, this increasing focus on protein presents a strategic opportunity. As consumers seek healthier and more sustainable ways to meet their protein needs, plant-based foods should be positioned not as side dishes, but as central components of protein supportive meals.**

Offering appropriate combinations of plant-based foods can help support adequate protein intake while simultaneously improving consumer health and environmental outcomes.

With backing from governments promoting more sustainable food systems, and from health professionals advocating dietary change, this emphasis on plant-based foods has the potential to drive increased demand across the sector.

Whilst the transition towards more plant-based foods presents a major opportunity for Australian horticulture, there are clear challenges ahead. Firstly, there needs to be evidence that a transition to more plant-based foods is not bad for the health of older consumers. Its success in an ageing population will depend not only on increasing supply of plant-based foods, but also on delivering high quality protein within plant-based foods.

In older adults, maintaining muscle mass and function requires sufficient intake of indispensable amino acids, the building blocks of protein, alongside good digestibility and absorption (i.e., protein quality). This is particularly important given age-related loss of muscle health and typically lower appetite, meaning that protein intake must be both adequate and high quality.

Plant-based foods offer clear advantages for sustainability and health, as they are generally higher in fibre and lower in saturated fats, with benefits for cardiometabolic health and cancer risk. However, the proteins present in plant-based foods often

have a less optimal amino acid profile and reduced digestibility compared to proteins present in animal-based foods. Therefore, we need to increase total plant protein intake, improving protein density, and strategically combine plant sources (e.g. legumes and grains and vegetables) within meals to enhance overall protein quality.

In other words, it is not just about increasing the consumption of plant-based foods, but about the protein quality of these foods. Getting this right will facilitate the transition to the consumption of more plant-based foods, which will benefit health and sustainability, as well as growers of plant-based foods.

At present, limited evidence exists to show that the regular consumption of plant-based foods can adequately support muscle health in older people, making many health professionals cautious. Strong scientific evidence is needed to demonstrate that the regular consumption of plant-based foods, with a specific care of the protein quality and quantity, can support healthy ageing, rather than undermine it. This evidence is also critical for gaining broader government support and consumer confidence.

Deakin University is addressing this evidence gap through an in depth epidemiological study examining links between the regular consumption of plant-based foods and health outcomes in older Australians, followed by a clinical trial. This trial will assess the impact of the consumption of plant-based foods, with a higher intake of plant-based protein, including vegetables, on muscle health and chronic disease outcomes.

Positive findings would help shift perceptions among health professionals and aged care providers, support greater use of plant-based foods for older adults, and ultimately drive increased demand for plant-based foods.

Another key challenge is making the regular consumption of plant-based foods appealing to older adults. Enjoyment strongly influences food choice, and factors such as taste, texture and age related sensory changes play an important role. These consumer preferences directly shape purchasing decisions and, in turn, demand for plant-based foods.

Understanding what older consumers enjoy, alongside the challenges and opportunities seen by growers, health professionals and food providers, will help identify practical pathways to increase adoption of the regular consumption of plant-based foods and support sustained demand for Australian grown produce.

Over the coming years, this project will translate cutting-edge science into practical insights shared through trade and scientific publications, industry channels, webinars, and mainstream media.

**At the heart of this effort is a clear message: the regular consumption of plant-based foods can be accessible, enjoyable, and highly supportive of healthy ageing when designed well.**

By ensuring plant-based foods are at the centre of the shift towards more healthy and sustainable food consumption, the sector has the potential to move beyond volume and lead in delivering high-value, nutrient-rich foods that align with both health and sustainability goals. This is not only a scientific priority, but a strategic opportunity for Australian growers to shape future food systems and meet the evolving needs of the Australian ageing population.

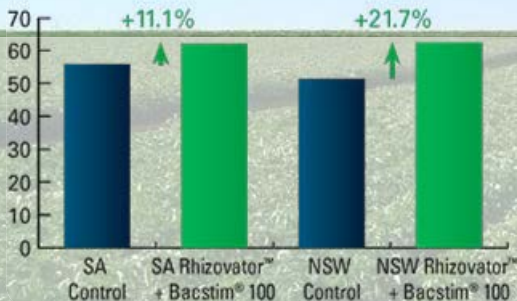


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