

EDUCATING ON THE BENEFITS OF MUSHROOMS IN HEALTH CARE SETTINGS

Educating food and health professionals about the nutrition and culinary benefits of Australian mushrooms: Progress update.

By Leah Bramich

If the proof of the pudding is in the eating, then get set for some fascinating data coming soon. Now in its final year, the 3-year Hort Innovation-funded project, *MU20003: Educating the food industry*, has moved onto the 'showing' phase of its mission.

Collaborating with research partner FOODiQ (formally NRAUS) and chef Adam Moore, the AMGA has engaged two leading examples of the institutional food sector to educate food and health care professionals about the unique nutritional benefits of Australian-grown *Agaricus bisporus* mushrooms.

Major interventions are underway with Mater Hospital Brisbane and Shoreline Aged Care in Coffs Harbour to add more Australian mushrooms to the menu. The team will investigate the impact on nutritional intakes of residents and patients, as well as enjoyment of the menu.

Leah Bramich, General Manager of the AMGA, says the project is showcasing the impressive health and culinary impacts that mushrooms can have, while catering to a breadth of dietary needs and preferences.

"Plant-based eating is the biggest global trend of the last decade, with more than one third of Australians choosing to eat less meat, or no meat at all, yet research shows that the food service sector is not tapping into the opportunity. Our education campaign is highlighting

to food and health care professionals that mushrooms tick all the boxes - they boost the nutrition and flavour of meals while catering to the growing demand of plant-forward dietary preferences including vegan, vegetarian, and flexitarian.

"The initial industry blueprint and research identified the institutional food sector (aged care and health care organisations) to have the largest opportunity to influence, so to work with Mater Hospital and Shoreline Aged Care is a big win. We'll be able to provide evidence of the incredible benefits mushrooms can have in a health care and residential aged care setting, and most importantly, showcase this to the wider industry and community."

MUSHROOMS ON THE MENU AT SHORELINE LUXURY AGED CARE

With partners Shoreline Luxury Retirement Living in Coffs Harbour, the team have embarked on a first-time research study focusing on enhancing vitamin D and overall nutrient intake among aged care residents.

The *Mushrooms on the Menu* study is investigating the feasibility of adding vitamin D enriched mushrooms to the menu at Shoreline residential aged care centre and the impact of this specially crafted mushroom-based menu, designed by Shoreline's executive chef and nutritionist. The team will evaluate the impact of

the menu on nutritional intakes of the aged care facility residents as well as their overall enjoyment of the menu. The vitamin D enriched mushrooms for the study are being supplied by White Prince Mushrooms.

The Shoreline Residential Aged Care (RAC) facility has been chosen as a focal point to evaluate the acceptability, demand, practicality, and implementation of the mushroom menu intervention within an aged care environment. Given the imperative to address malnutrition in RAC facilities, especially regarding vitamin D deficiency, and the growing momentum towards prioritising food-first nutrition approaches, mushrooms stand out as a remarkable ingredient to incorporate into daily menus. Recognised for their flavour-enhancing properties and content of vitamin D and other nutrients, mushrooms present a unique opportunity to enhance nutrition and patient satisfaction in aged care settings.

While the benefits of dietary intake of UV-exposed mushrooms in improving vitamin D status and enhancing flavour are acknowledged in research, there remains uncertainty regarding the feasibility of integrating UV-treated mushrooms into RAC facility menus and their impact on residents' food and nutrient intake. This study aims to bridge this research gap, offering valuable insights to the scientific community and gaining real-

world evidence of the transformative potential of a mushroom-focused menu on the nutrition and overall well-being of older adults in RAC settings.

To launch the study, Chef Adam Moore hosted a live cooking demonstration for Shoreline residents in January. As part of the study, Shoreline residents will be provided with the opportunity to select a mushroom meal at main meal occasions and must select at least one mushroom meal (containing at least 75g vitamin D enriched mushrooms) each day for 28 days. Food intake will be assessed before and during the mushroom-menu intervention with nutritional analysis carried out to compare intake. Independent living residents are also being recruited to take part, with participants receiving two punnets of mushrooms each week and weekly recipe cards for meal inspiration, to prepare their own daily mushroom meal throughout the study intervention.

Participating residents are aged 65+, an age group that is more susceptible to vitamin D deficiency. Studies have shown that up to 80% of women and 70% of men living in nursing homes in Victoria, New South Wales, and Western Australia are vitamin D deficient. Vitamin D deficiency is associated with higher risk of falls in this group, with vitamin D supplementation shown to improve fall rate, meaning this study could improve the wellbeing and livelihood of many residents in aged care facilities.

The study is currently underway, and findings expected to be finalised by mid-year.

MUSHROOMS ON THE MENU AT MATER HOSPITAL BRISBANE.

The project team also partnered with The Mater Hospital Brisbane, for a comprehensive initiative aimed at elevating their services through a mushroom-



Top left, discussing mushrooms in the Shoreline kitchen; top right, delicious mushroom pastries; bottom left Shoreline residents being introduced to the program.

focused program. The initiative was born out of Mater's recognition of mushrooms as a unique, versatile, and vegan source of vitamin D, aligning seamlessly with their commitment to prioritising food first dietary solutions for health and wellness.

With one in four Australian adults being vitamin D deficient¹, the Mater saw mushrooms as a problem-solving ingredient to incorporate into the hospital menu, as they are the only natural non-animal source of vitamin D². Vitamin D is crucial for immunity and bone health, and in an era when plant-based dietary preferences are on the rise, plant-forward meal options providing vitamin D are especially important in health care environments.

The mushroom menu was designed by dietitians and Chef Luke Mangan to optimise nutritional intake and the culinary experience for patients choosing plant-based meals, and continues Mater Hospital's dedication to innovative food and beverage programs.

The Mater provides a wide range of adult surgical, medical and cancer services, including intensive and coronary care, day surgery, day oncology and day respite, as well as busy medical, cancer and surgical units. It was the first hospital in Australia to implement room service and is already known as an innovative leader in hospital catering.

"The partnership is a holistic approach involving a multi-disciplinary team incorporating Mater's dietitians, chefs and customer service staff together with celebrity chef Luke Mangan, together with input from FOODiQ and AMGA to achieve a plant forward, nutritious food program," says Leah Bramich.

The initiative encompasses multifaceted efforts including educating nutrition and food service professionals, as well as supporting them in their education of patients and the community. Central to this initiative was the introduction of 'Mushrooms on the Menu' specials menu within their private hospital campus, featuring a dedicated mushroom centric plant-based meal option integrated into their existing four-week rotating Luke Mangan specials patient menu.

Three workshops were conducted to increase the culinary and nutritional knowledge of the chefs and kitchen team, customer service team, and dietitians, led by experts Dr Flavia Fayet-Moore (FoodIQ), Chef Adam

Moore (Culinary Revolutions), and Leah Bramich (AMGA). These workshops were instrumental in disseminating knowledge and motivation to include mushrooms in the menu.

The team provided an educational toolkit comprising printed resources and complimentary punnets of mushrooms (provided by Brisbane based grower, Marland Mushrooms). Patient resources were developed by the Mater Hospital alongside hospital social outreach initiatives that educated staff and patients about mushrooms for a holistic approach to nutrition and culinary education - from the Mater Hospital chefs, dietitians and food service team through to the patient consumer.

Initially slated for a 3-month duration, the 'Mushrooms on the Menu' intervention garnered such positive reception from the Mater team that it was extended for an additional three months, now scheduled for completion by March 31, 2024.

THE NEW EDUCATION RESOURCES FOR FOOD AND HEALTH PROFESSIONALS

Throughout the project, a suite of informative resources has been created, specifically for food and health professionals, available on the AMGA website.

The AMGA and FOODiQ will host an educational roadshow this year to present the results of the MU20003 research study, inviting key opinion leaders, nutritionists, dietitians, and food industry professionals to attend the events and conference opportunities.

A growing database of health and food professionals has also been developed, allowing the resources and updates to be regularly shared with the wider health care and food industry as the project progresses.

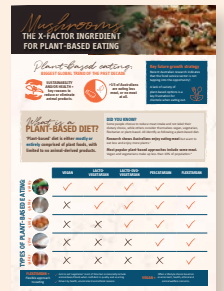
An online portal of educational and inspirational resources for food and health care professionals has been developed on the AMGA website, featuring a suite of new videos, facts sheets and an e-Book.

Health and food professionals can visit the site for nutrition and cooking information, trends, statistics, insights, tips, and tricks about Australian mushrooms. The resources include three YouTube videos and associated fact sheets.

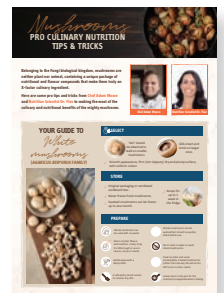
Click each video or fact sheet to view or download from australianmushroomgrowers.com.au/food-industry/



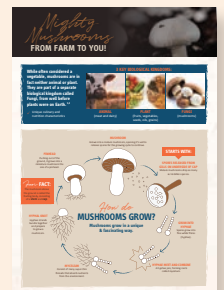
Video 1: How to cater to plant-based dietary preferences and mushrooms as a meat substitute. This video contains a variety of surprising tips on how to cook mushrooms to retain optimum flavour and boost the nutritional content of meals, from Chef Adam Moore and Dr Flavia Fayet-Moore (Dr Flav), Nutrition Scientist.



Video 2: Pro culinary tips and tricks: Dr Flav and Chef Adam Moore discuss the different plant-based diets, and the importance of including Australian Mushrooms within each diet, due to their unique nutritional and culinary benefits.



Video 3: From farm to you: learn how mushrooms grow. Dr Flav and Chef Adam visit Australian mushroom grower, Rowan Anderson at White Prince Mushrooms, a farm located in the Hawkesbury region west of Sydney, to learn about (*Agaricus bisporus*) mushrooms' unique growing process, from compost to harvest.



IN THE MEDIA

The project has already generated significant positive media coverage. You can view recent coverage, including local newspapers and industry related publications. View the full list at <https://australianmushroomgrowers.com.au/press/>.

“We look forward to seeing the results of the MU20003 studies, and sharing the findings widely with food and health professionals, in turn encouraging other institutional organisation to add more mushrooms to menus,” says Leah Bramich.

LEARN MORE

Food industry professionals can express interest in participating in the project by enquiring via the form on the AMGA website: <https://australianmushroomgrowers.com.au/food-industry/>

Hort Innovation MUSHROOM FUND

This project has been funded by Hort Innovation using the mushroom research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au

This Australian Mushrooms project is a Hort Innovation Mushroom Fund strategic levy investment and is led by the Australian Mushroom Growers Association (AMGA). Together with FOODiQ Global, and food industry expert, Chef Adam Moore, the project aims to tackle some of the nation's biggest nutrition problems with mighty mushrooms. Engaging key players in the food industry, including Hospitals, Aged Care, Quick Service Restaurants and Food Manufacturers and identifying opportunities for Australian mushrooms to be included in menus, the program aims to improve health outcomes on a large scale.

READ MORE

The resources can be found here: <https://australianmushroomgrowers.com.au/food-industry/>



The project delivery team, from left: Leah Bramich, Shoreline executive chef Andrew Wright, chef Adam Moore, Dr Flavia Fayet-Moore, and Lucy Downey