

## **Final Report**

# **Onion nutrition education program for health professionals and the food service industry**

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**Delivery partner:**

Bite Communications Pty Ltd

**Project code:**

VN20002

**Project:**

Onion nutrition education program for health professionals and the food service industry (VN20002)

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**Funding statement:**

This project has been funded by Hort Innovation, using the Onion research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

**Publishing details:**

Published and distributed by: Hort Innovation

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[www.horticulture.com.au](http://www.horticulture.com.au)

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## Public summary

The Onion nutrition education program for health professionals and the food service industry (VN2002) delivered evidence-based information about Australian onions to health and food service professionals and provided tools to educate patients that onions are a healthy inclusion in their everyday diet and inspire the use of onions as a hero ingredient in food service settings.

The program created 33 assets, including two health reports, fact sheets, meal plans, research updates and videos. The materials were housed on website hubs for health and food service professionals and downloaded +9,660 times over the life of the program. To embed the knowledge and create advocates among these influential audiences, the program engaged one-on-one with +2,010 HCPs at conferences, conducted workshops with 165 chefs and culinary professionals, and took 47 dietitians and chefs on farm tours, with tour guests sharing their insights and learnings on social media, delivering a further ~1.29 million opportunities to see. In total the program delivered a total of +2.2 million opportunities touch points for health and food service professionals to see the program messages on the health benefits of onions and inspire use of onions as a hero ingredient.

Benchmark research conducted at the start of the program and repeated at the end of year three found improved knowledge and recommendation among health professionals. It found a 32% increase in those who agreed onions were very important in supporting overall health, a 20% increase in health professionals who correctly identified the health benefits of onions and a 7% increase in health professionals who recommended onions to their patients once a week or more.

The research found that food service professionals were also using more onions, with a 120% increase in daily use of onions among food service professionals and a 77% lift in those who said they always included onion as a hero ingredient in meals on their menus.

Health professionals influence the behaviour and consumption habits of millions of Australian consumers each year through direct consultations, public health programs and guidelines, media and social channels and the food industry. Likewise, Australians spending around 30% of their food and beverage budgets on eating out (Lightspeed, 2024) and as such food service industry plays an important role in shaping the foods Australians consume both in food service venues and the inspiration they take home.

This program combined both health and food service professional audiences to focus on the emerging area of culinary nutrition –the integration of nutritional science with culinary techniques. The program improved knowledge and changed behaviour by giving health and food service professional reasons to take onion from a humble flavour base to a hero on the plate.

Word count: 440

**Keywords** *Onions, onion, culinary nutrition, health professional, food service, dietitian, farm tour, education*

## Introduction

The most recent Australian Health Survey found that Australian adults, on average, consumed just 3g of onion per day.<sup>1</sup> In contrast, consumers in the United States and Europe consumed twice as many onions as Australians.<sup>2</sup>

To close this gap, it is essential to establish initiatives that educate key influencers of consumer food behaviour, specifically health professionals and the food service industry.

Prior to the **Onion nutrition education program for health professionals and the food service industry (VN2002)**, these groups had received little communication regarding the growing body of evidence supporting the nutritional and health benefits of onions or encouraging dishes that featured onions as a key ingredient.

This presented an opportunity to develop and communicate evidence-based health and nutrition resources, as well as culinary inspiration, to health and food service professionals and ultimately increase onion recommendation and elevate onion use in meals and menus.

The objective of the program was to deliver evidence-based information about Australian onions to health professionals (dietitians, nutritionists, general practitioners and students in health-related disciplines and other health professionals such as fitness practitioners) and food service professionals (chefs, culinary educators, product developers and large caterers).

Evidence suggested the most effective way to influence the behaviour of health and food service professionals was to provide activities that combined multiple interventions. Therefore, the project incorporated a combination of touchpoints to educate health and food service professionals about the nutrition and health benefits of onions, encourage and enable recommendation of onions to patients/clients and inspire the increased usage of onions as a hero ingredient.

**Business objective:** Increase consumer demand for Australian onions through improving knowledge of onion health and nutrition benefits to health and food service professionals, resulting in improved attitudes and purchase intent.

**Project objective:** Deliver evidence-based information about Australian onions to health and food service professionals, to give them the tools they need to assure patients and clients that onions are a healthy inclusion in their everyday diet, and hero as an ingredient in food service settings.

### References:

1. [Australian Health Survey: Nutrition First Results - Food and Nutrients](#)
2. [Onions Strategic Investment Plan, 2017-2021](#)

## Methodology

The VN20002 project, delivered by Bite Communications, accredited practising dietitian, Teri Lichtenstein and Straight To The Source, provided evidence-based and practical information about Australian onions to dietitians, nutritionists, general practitioners, students of health-related disciplines and other health professionals such as fitness professionals and health coaches, as well as food service professionals including chefs, culinary educators, product developers and large caterers.

The program combined a range of resources, tools, information materials and research to achieve its goals, including:

1. **Audience research:** To evaluate the impact of the program, a benchmark understanding of health and food service professional perceptions about onions was established (*Benchmark Survey, November 2021*). The survey was repeated in the third year of the program (*Year Three Survey, February 2024*) to inform the program evaluation.
2. **Nutrition digital hub for health and food service professionals:** A dynamic hub was created to form the centre of the digital communications ecosystem for the program and provide health and food service professionals with easily accessible information and up-to-date resources on the health benefits of onions and culinary inspiration. The digital hub expanded upon the former Australian Onions website and housed the update onions health and nutrition report, research updates, patient and culinary service guides, meal plans and tools to support wider dissemination.
3. **Creation of a targeted customer database:** A database acquisition program was implemented to build a database of engaged health and food professionals for direct communication. Lead generation campaigns, incentivised with compelling resources from the digital hub, drove targeted database sign-ups. The database was used for regular communications and science updates via electronic distributed mail.
4. **Onions health and nutrition report:** *Australian Onions: A Health and Nutrition Overview* was updated with new research since the completion of VN18002. This included a PubMed search to identify new studies, distilling the new data and redesigning the report in 2022 and again in 2024. The new reports informed health messaging for the program and were disseminated via EDM, social media campaigns and shared at health professional conferences.
5. **Farm tours, workshops and conferences:** The program delivered four bespoke farm tours, curated to educate respected chefs and high-profile health professionals about how onions grow; the health benefits of Australian onions; and culinary uses on menus, including awareness of the versatility of onions and using onions as a hero ingredient. To further increase and diversify education opportunities, the program also held six food service workshops and an interactive trade exhibit at three key healthcare professional conferences.
6. **Global research centre engagement:** Lines of communication were established with the National Onions Association (NOA), to leverage available materials and remain informed about the pipeline of upcoming nutrition research.
7. **Industry engagement:** There were regular industry communications during the program to inform and equip members with the information and tools to amplify the nutrition and health benefits of onions on their own channels.
8. **Oversight:** A Project Reference Group (PRG) was established to oversee and monitor the project's progress and successful implementation to timeline. The PRG consisted of industry members, Hort Innovation representatives and external health and food experts with proficiency in marketing, nutrition and primary produce. Outputs and impact were assessed throughout the program and regular updates provided a part of milestone report submissions and in six-monthly Project Reference Group (PRG) meetings.

## Results and discussion

### Key Outcomes

Health professionals influence the behaviour and consumption habits of millions of Australian consumers each year through direct consultations, public health programs and guidelines, media and social channels, and the food industry. Likewise, with Australians spending around 30% of their food and beverage budgets on eating out (Lightspeed, 2024), the food service industry plays an important role in shaping the foods Australians consume both in food service venues and the inspiration they take home.

The program improved knowledge and changed behaviour of these two key audiences. Specifically, it has:

- **Delivered a dynamic communications platform and framework**, including a website, a suite of evidence-based resources, a database and an electronic direct mail program. This is valued and used by health and food service professionals, with more than 9,660 downloads of program resources. There was a 288% increase in health professionals who obtained resources on the health and nutrition benefits of onions and found them useful (31%, up from 8% at benchmark). For food service professionals, there was a 148% increase in those who obtained resources on culinary tips and nutritional properties of onions and found them useful (57%, up from 23% at benchmark).
- **Achieved increased in onion health and nutritional benefits knowledge**, with a 22% increase in health professionals who could correctly identify nutrients associated with onions (44%, up from 36% at benchmark) and a 20% increase those who could correctly identify health benefits associated with onions (36%, up from 30% at benchmark).
- **Achieved increased in recommendation of onions to patients and clients**, with a 7% increase in health professionals recommending onions to their patients or clients once a week or more (44% up from 41% at benchmark) and a decrease (-22%) in those who never recommended onions (18%, down from 23%).
- **Achieved an increased use of onions as a hero ingredient**, with a 77% increase in food service professionals who reported always including onion as a key ingredient in a meal or menu item (39%, up from 22% at benchmark), and a 120% increase those who reported daily use of onions (66%, up from 30% at benchmark).

### Research and Measurement

#### Audience Surveys

Two waves of audience research were conducted (benchmark, November 2021, and year three, February 2024). Health professionals surveyed included dietitians, GPs and fitness professionals, nurses, exercise physiologists and students studying relevant disciplines such as home economists. From benchmark to year three, there was:

- a 32% increase in health professionals who agreed that onions were very important in supporting overall health (41%, up from 31%);
- a 16% increase in health professionals who agreed or strongly agreed that onions had unique health benefits and nutritional properties (79%, up from 68% at benchmark);
- a 7% increase in health professionals who recommended their patients and clients to consume onions once a week or more and a complementary decrease (-22%) in health professionals who never recommended onions to their patients and clients (44%, up from 41% at benchmark); and
- a 288% increase in health professionals who obtained resources on the health benefits and nutritional properties of onions and found them useful (31%, up from 8% at benchmark).

The final survey provided insights to inform the fourth year of the program and future health professional education programs. These included:

- confirmation that digital communications were the most effective way to reach the target audience;
- the high value of existing evidenced-based resources and support from HCPs for additional resources and updates;
- the effectiveness of the program in educating health professionals about the benefits of onions nutritional properties, in particular antioxidants, prebiotic fibre and vitamin C, with scope for future programs to place additional focus on anthocyanin, sulfoxides and quercetin;
- the effectiveness of the program in educating health professionals about the health benefits of onions, in particular anti-inflammatory, gut health and antioxidant benefits, and scope to increase educational activity about bone health, Alzheimer's disease prevention, diabetes management and fatigue reduction; and
- identification of a key referral barrier relating to gut issues, such as irritable bowel syndrome (IBS) and FODMAP diets, and scope for future programs to address best practice dietary advice specifically for gut health issues.

Two surveys were also conducted among food service professionals targeting chefs, culinary educators, product developers and large caterers. From benchmark to year three, there was:

- a 120% increase in those who reported daily use of onions in their recipes and menu items (66%, up from 30%);
- a 77% increase in food service professionals who always included onion as a key ingredient in a meal or menu item (39%, up from 22%);
- a 77% increase those who reported eating onions almost every day or more (53%, up from 30%); and
- a 148% increase in those who obtained educational resources and found them useful (57%, up from 23%).

The final survey provided insights to inform the fourth year of the program and future food service industry onion education programs. These included:

- the top three reasons food service professionals included onions in their recipes and menu items were for taste (82%), texture (46%) and nutritional benefits (37%);
- the importance of repeating relevant and simple nutrition messaging, ideally top three nutrition messages shared consistently across all communication platforms e.g., half an onion (75g) is a serve of vegetables;
- opportunity to provide education and practical solutions to address common usage and consumption barriers such as FODMAP diets, allergies and intolerances, and religious fasting;
- opportunity to continue to increase the awareness and distribution of culinary resources (36% of food service professionals were unaware of they were available);
- continuing to deliver education via the most effective and requested channels farm and/or market tours (56%), social media posts (55%) and mini recipe booklets/videos (52%); and
- continuing to produce inspirational and innovative ideas for cooks and chefs on ways to prepare and use onions as a cost effective, tasty and nutritious ingredient for recipes and menus.

### **KPI Tracking**

In addition to the audience tracking research, metrics were established at the program's outset (KPIs) and performance against them tracked. As a new program, this involved best estimates for some measures and not all KPIs were met by the end of year three. KPIs were revisited as part of the year four planning, agreed with the PRG and shared with Hort Innovation as part of Milestone 109. The only revised KPIs not met at the conclusion of the project was monthly website users, indicated in red in the table overleaf.



| VN20002: Key Performance Indicators                          | KPI  | Tracking           |                   |                   |                  |                   |                  | Updated KPI | Final Report     |                  |
|--------------------------------------------------------------|------|--------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------|------------------|------------------|
|                                                              |      | as at 5 April 2022 | as at 27 Oct 2022 | as at 22 Mar 2023 | as at 8 Nov 2023 | as at 29 Feb 2024 | as at 1 May 2024 |             | as at 6 Nov 2024 | as at 7 Feb 2025 |
| <b>EDMS &amp; Research Alerts</b>                            |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| <b>Healthcare Professionals</b>                              |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| Number disseminated (EDM & Rsh Alert)                        | 16   | 1                  | 3                 | 8                 | 13               | 15                | 16               | 20          | 18               | 20               |
| People reached over life of program                          | 40K  | 142                | 456               | 1,810             | 6,863            | 10,340            | 12,119           | 20K         | 17,436           | 22,383           |
| Open rate*                                                   | 24%  | -                  | 30%               | 37%               | 37%              | 39%               | 40%              | 30%         | 39%              | 37%              |
| CTR*                                                         | 3%   | -                  | 29%               | 18%               | 23%              | 33%               | 36%              | 10%         | 27%              | 26%              |
| <b>Food Service Professionals</b>                            |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| Number disseminated (EDM)                                    | 10   | 1                  | 2                 | 6                 | 8                | 10                | 10               | 12          | 11               | 12               |
| People reached (over life of program)                        | 20K  | 28                 | 61                | 555               | 1,655            | 2,561             | 3,404            | 5K          | 5,320            | 6,367            |
| Open rate*                                                   | 19%  | -                  | 46%               | 43%               | 38%              | 39%               | 39%              | 30%         | 40%              | 39%              |
| CTR*                                                         | 2%   | -                  | 37%               | 13%               | 33%              | 37%               | 33%              | 10%         | 29%              | 26%              |
| <b>Database</b>                                              |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| Total Database                                               | 2500 | 170                | 517               | 780               | 2,065            | 2,416             | 2,568            | 3,000       | 3,034            | 3,068            |
| - Healthcare Professional                                    | -    | -                  | -                 | 490               | 1,594            | 1,669             | 1,781            | -           | 1,963            | 2,107            |
| - Food Service                                               | -    | -                  | -                 | 290               | 517              | 879               | 916              | -           | 1,071            | 1,106            |
| People reached over life of program                          | 60K  | -                  | 687               | 2,365             | 8,518            | 12,872            | 12,872           | 25K         | 22,756           | 28,750           |
| <b>Farm Tours</b>                                            |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| Number                                                       | 4    | -                  | 1                 | 2                 | 3                | 3                 | 4                | 4           | 4                | 4                |
| Attendees (over four events)                                 | 40   | -                  | 13                | 25                | 38               | 38                | 47               | 40          | 47               | 47               |
| Individual event amplification                               |      |                    | 226,303           | 334,489           | 149,900          | 0                 | 584,602          | -           | -                | -                |
| Digital amplification (OTS over four events)                 | 30K  | -                  | 226,303           | 560,792           | 710,692          | 710,692           | 1,295,294        | 30K         | 1,295,294        | 1,295,294        |
| <b>Conferences</b>                                           |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| Number                                                       | 2    | -                  | 1                 | 2                 | 2                | 2                 | 2                | 3           | 3                | 3                |
| One-on-one engagements (total over 2 events)                 | 400  | -                  | 710               | 1510              | 1,510            | 1,510             | 1,510            | 2,000       | 2,010            | 2,010            |
| Digital amplification (impressions over 3 events)            | 15K  | -                  | 49,312            | 105,415           | 105,415          | 105,415           | 105,415          | 110K        | 225,617          | 225,617          |
| <b>Workshops</b>                                             |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| Number                                                       | 4    | -                  | 2                 | 3                 | 4                | 4                 | 4                | 6           | 6                | 6                |
| Attendees (over six events)                                  | 80   | -                  | 60                | 70                | 91               | 91                | 91               | 140         | 165              | 165              |
| Digital amplification (impressions over 6 events)            | 20K  | -                  | 45,958            | 80,958            | 162,466          | 162,466           | 162,466          | 180K        | 613,510          | 613,510          |
| <b>Onion Health Report</b>                                   |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| Impressions (2022 + 2024 report availability / key messages) | 20K  | -                  | 36,744            | 36,744            | 36,744           | 36,744            | 36,744           | 20K         | 36,744           | 49,959           |
| Downloads ^                                                  | 600  | -                  | 423               | 659               | 1,027            | 1,155             | 1,205            | 1,500       | 1,283            | 1,530            |
| <b>Website</b>                                               |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| <b>Healthcare Professionals</b>                              |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| Total sessions/month                                         | 300  | -                  | 81                | 94                | 110              | 120               | 122              | 130         | 224              | 168              |
| Total users/month                                            | 125  | -                  | 60                | 73                | 94               | 98                | 102              | 125         | 97               | 118              |
| Asset downloads (all assets) ^                               | 2000 | -                  | 1,023             | 2,177             | 5,042            | 6,344             | 6,499            | 7,200       | 7,298            | 7,446            |
| <b>Food Service Professionals</b>                            |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| Total sessions/month                                         | 150  | -                  | 16                | 24                | 31               | 46                | 46               | 50          | 104              | 58               |
| Total users/month                                            | 75   | -                  | 23                | 31                | 34               | 44                | 44               | 50          | 52               | 39               |
| Asset downloads (all assets) ^                               | 1500 | -                  | 42                | 994               | 1,213            | 1,230             | 1,242            | 1,300       | 2,200            | 2,217            |
| <b>Industry Engagement</b>                                   |      |                    |                   |                   |                  |                   |                  |             |                  |                  |
| Grower EDMs disseminated                                     | 10   | -                  | 2                 | 4                 | 6                | 8                 | 10               | 12          | 12               | 12               |
| PRG meetings                                                 | 6    | 1                  | 2                 | 3                 | 4                | 5                 | 6                | 7           | 7                | 7                |
| Aus Onions Conference                                        | 1    | -                  | -                 | 1                 | -                | -                 | 1                | 1           | -                | 1                |
| Message House                                                | 1    | -                  | -                 | 1                 | -                | -                 | 1                | 1           | -                | 1                |
| <b>Total Impressions</b>                                     |      | 170                | 359,899           | 789,445           | 1,030,090        | 1,035,792         | 1,623,183        |             | 2,203,419        | 2,222,793        |

\* above industry average

^ digital and hard copy

~ Pre July 1 2023 figure, as Google Analytics has changed the reporting method for session time.

## Summary by Activity

### Electronic Direct Emails (EDMs)

EDMs and Research Alerts were effective tools for information dissemination and audience engagement. Thirty-two EDM newsletters and research alerts (20 health professional and 12 food service) were distributed during the four-year program. Open rates of EDMs were 37% for health professionals and 39% for food service. The full quota of 32 email newsletters and research alerts was achieved. The EDMs were distributed to a growing database, which is currently sitting at 3,068 health and food service professionals combined.

### Farm Tours

The farm tours provided an inspiring first-hand learning experience, with digital amplification via influential attendees sharing their learnings on social media four times higher than anticipated (114 social media posts and stories generating +1,295,000 potential opportunities to see, well above the KPI of 30,000). Forty-seven health and food influencers attended, exceeding the original goal of 40. Anecdotal feedback from farm tour attendees was extremely positive and shared within attendees' professional networks.

The four farms visited were Mitolo, SA (twice), Qualipac, QLD and Premium Fresh, TAS. In all cases feedback from the growers was positive. Videos from the first three farm tours was developed and housed on the website at Farm tour - Health professionals and Farm tours - Food service. These were also shared via EDMs. The following health and food service influencers (i.e., influential dietitians, nutritionists, chefs and culinary educators) attended the farm tours:

| Farm Tour One: Mitolo Family Farms, South Australia – June 2022                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• <a href="#">Themis Chryssidis</a>, Sprout Cooking School</li> <li>• Brittany Marsh, University of SA</li> <li>• Amber Kelaart, Nutrition Australia</li> <li>• <a href="#">Chloe McLeod</a>, Expert Dietitian</li> <li>• Michelle Lausen, Vic Fruit and Veg Consortium</li> <li>• Huda Al Sultan, Sassi Ice-cream; MasterChef</li> <li>• Alex Dinnucio, Coles</li> </ul> | <ul style="list-style-type: none"> <li>• <a href="#">Callum Hann</a>, Sprout Cooking School</li> <li>• <a href="#">Kane Pollard</a>, The Sustainable Chef</li> <li>• <a href="#">Claire Falzon</a>, Executive Chef, Hentley Farm</li> <li>• Olivia Yu, Head Chef, Hentley farm</li> <li>• Aaron Hill, Head Chef, Maximilian's Restaurant</li> <li>• Vincent La Montagna, Head Chef, Mitolo Wines</li> <li>• <a href="#">Kevin Martel</a>, Executive Chef, The Playford Adelaide (<i>late cancellation</i>)</li> </ul> |

| Farm Tour Two: Mitolo Family Farms, South Australia – October 2023                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Emma Stirling, ACU Melbourne</li> <li>• Karissa Deutrom, Dietitians Do Media</li> <li>• Simone Austin, Healthy Life, Woolworths</li> <li>• Laura Ford, Digital Marketing Dietitian, Coles</li> <li>• Grace Field, APD, Influencer</li> <li>• Jacqui Lim, Soi38</li> <li>• Sam Cooper, Head Chef, Aurora / Light Adelaide</li> <li>• Mitch Bintely, Senior Sous Chef, Aurora / Light Adelaide</li> </ul> | <ul style="list-style-type: none"> <li>• Mohammed Bilal, Sous Chef, Aurora / Light Adelaide</li> <li>• Dan Sarafin, Head Chef, Pier Hotel</li> <li>• Cameron Tabe, Executive Chef, The Playford (Accor Hotels)</li> <li>• Paula Norris, Moving Dietitian (<i>late cancellation</i>)</li> <li>• Chris Wotton, Executive Chef, GM Hotels (<i>late cancellation</i>)</li> </ul> |

| <b>Farm Tour Three: Qualipac Produce, Queensland – November 2023</b>                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Stephanie Polson, Up Status</li> <li>• Ashleigh Jones, Lite'n'Easy</li> <li>• Michelle McCracken, Nestlé</li> <li>• Sammy Staines, Ideal Nutrition</li> <li>• Sophie Rindfleish, Healthy Body Healthy Mind</li> <li>• Tom Hitchcock, Spirit House (Australian Foodservice Professional Chef of 2023)</li> <li>• Jake Nicolson, Ghanem Group</li> </ul> | <ul style="list-style-type: none"> <li>• Zac Denholm, Boom Boom Room</li> <li>• Louis Tikaram, Stanley Restaurant (presenter on Farm to Fork, Network 10)</li> <li>• Brad Schulz, Mapleton Public House</li> <li>• Mitch Collins, L'Enclume (3 Michelin Star restaurant)</li> <li>• Karina Saavedra, Pastry Chef</li> </ul> |
| <b>Farm Tour Four: Premium Fresh, Tasmania – April 2024</b>                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• Jacqueline Alwill</li> <li>• Jemma O'Hanlon</li> <li>• Isabelle Goodwin</li> <li>• Danielle Toscan</li> <li>• Eduardo Espinel, Exec Chef, BW Events</li> </ul>                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• Phillip Stratemann, Exec Chef, Wrest Point Hobart</li> <li>• Peter Twitchett, Exec Chef, Country Club Tasmania</li> <li>• Tom Taylor, Exec Chef &amp; GM, Black Cow Bistro</li> <li>• Craig Wills, Exec Chef, Stillwater Restaurant</li> </ul>                                     |

### **Workshops**

Six workshops were delivered:

1. TAFE NSW, Ryde – June 2022
2. Fine Foods Australia, Melbourne – September 2022;
3. Marley Spoon, Sydney – March 2023;
4. Camperdown Commons – September 2023
5. Fine Foods Australia, Melbourne – September 2024; and
6. Camperdown Commons – October 2024.

The 2022 Fine Food Australia onions masterclass included a cooking challenge between five venues to hero onions. This was captured on video, which was housed on the website and shared via EDM. Attendance at the six workshops was strong, with 165 health and food influencers attending, above the original goal of 80 and revised KPI of 140. The digital amplification of the workshops also exceeded KPIs, generating 613,510 potential opportunities to see, well above the original KPI of 20,000 and the revised KPI of 180,000.

The health and food influencers (influential chefs and culinary educators) who attended the workshops were:

| <b>Workshop One: TAFE NSW, Sydney – June 2022</b>                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Belinda Foristal, TAFE NSW Teacher Commercial Cookery, TAFE NSW</li> <li>• Deborah Whitebread, TAFE NSW Head Teacher Commercial Cookery</li> <li>• Ianthe Smith, TAFE NSW Head Teacher Commercial Cookery</li> <li>• Karen Doyle, TAFE NSW / Le Cordon Bleu Program Manager / National President of Australian Culinary Federation</li> </ul> | <ul style="list-style-type: none"> <li>• Kylie Jones, Culinary Educator</li> <li>• Michael Morrison, Commercial Cookery, TAFE NSW Educator</li> <li>• Patrick Southon, TAFE NSW Head Teacher Cuisine</li> <li>• Jorge Antonio Chacon, Culinary Educator</li> <li>• Karen Kingham, ACU Senior Lecturer, Nutrition and Dietetics</li> </ul> |

### **Workshop Two: Fine Foods Australia, Melbourne – September 2022**

Sixty-six (66) food service professionals attended the Australian Onions session at the Fine Foods onions masterclass, and a large public audience also watched.

### **Workshop Three: Marley Spoon, Sydney – March 2023**

Ten (10) Marley Spoon / Dinnerly Executive team in attendance, including: Procurement & Purchasing, product development, culinary creatives and marketing.

### **Workshop Four: Camperdown Commons, Sydney – September 2023**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Ajoy Joshi, Nilgiris</li><li>• James (Head Chef) Bloodwood</li><li>• Deanne Paramxidis, Bloodwood</li><li>• Bonnie Y, Izy.aki</li><li>• Minhee Lee, Izy.aki</li><li>• Min Chai, Tokyo Lamington</li><li>• Fernando Sanchez, Opera Bar / Sofitel</li><li>• Jessica Pedemont, Chocolate Artisan</li><li>• Scott Kim The Chophouse, Matt Moran Group</li><li>• Naomi Lowry</li><li>• R.J Lines, One Penny Red</li><li>• Ruben Martinez, One Penny Red</li><li>• Simon Leong, Simon Food Favourites</li></ul> | <ul style="list-style-type: none"><li>• Simon Marnie, ABC Radio Sydney</li><li>• Tommy Prosser, Mr &amp; Mrs Prosser</li><li>• Wanitha Tanasingam, Wanitha Inc</li><li>• Jimmy Wong, Jimmy Wong Eats</li><li>• Darren O'Rourke, Chef</li><li>• Christopher The, Hearthe by Christopher</li><li>• John Tselkidis, Mitolo Family Farms</li><li>• Holly Davis, Food by Holy Davis</li><li>• Kathy Apostolidis, Camperdown Commons</li><li>• Arin Ellis, Camperdown Commons</li><li>• Lorenzo Pagano, Camperdown Commons</li><li>• Eddie Stewart, Tokyo Lamington</li></ul> |
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### **Workshop Five: Fine Foods Australia, Melbourne – September 2024**

Forty-eight food service professionals attended the Australian Onions session at the Fine Foods onions masterclass, which could also be watched by the public audience.

### **Workshop Six: Camperdown Commons, Sydney – October 2024**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <ul style="list-style-type: none"><li>• Claire van Vuuren, Bloodwood</li><li>• Deanne Parmaxidis, Bloodwood</li><li>• Eddie Stewart, Lamington Tokyo</li><li>• Min Chai, Lamington Tokyo</li><li>• Mishy Powell, Mishy's Sydney</li><li>• Jo Ward, Mishy's Sydney</li><li>• Karen Doyle, TAFE / Le Cordon Bleu / Australian Culinary Federation</li><li>• Elena Duggan, Culinary educator / MasterChef winner 2016</li><li>• Nick Smith, Rising Sun Workshop</li><li>• Laura Box, Hospitality Magazine</li><li>• Hugh Kelly, ONA Coffee Sydney</li><li>• Laurence Pagano, CMNL Group</li></ul> | <ul style="list-style-type: none"><li>• Elke Travers, Nestle</li><li>• Brad Bennett, Le Culinaire</li><li>• Julie Halkidis, Le Culinaire</li><li>• Sean Cunningham, UNOX</li><li>• RJ Lines, Exec Chef Consultant</li><li>• Ashraf Saleh, Coya</li><li>• Kit Saleh, Coya</li><li>• Martin Farrell, New Sunrise</li><li>• Andrew Ballard, Unilever Food Solutions</li><li>• Tim Browne, Moffat Group</li><li>• Danny Russo, Russolini Group</li><li>• Michael Lewis, Sala Dining</li><li>• Leisa Colin, Brilliant Food</li></ul> |
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As added value to the program, two additional opportunities were secured by Straight To The Source:

1. inclusion in two educational sessions with the Marriott Group for a total of 40 executive chefs, in August 2024; and
2. distribution of Australian Onions food service culinary resources (120) to Orchard Early Learning Centre kitchen staff to support them in their meal planning.

### ***Health Professional Conference Trade Exhibitions***

Interactive trade exhibits were held at three health professional conferences for dietitians and GPs. The one-on-one engagement exceeded the original KPI of 400, and revised KPI of 2,000, with a total of 2,010 health professionals reached. Resources were distributed to delegates with tertiary education representatives from the University of Canberra and University of the Sunshine Coast taking additional resources to share with students. The KPI for social amplification of the key messages was also exceeded with 225,617 opportunities to see generated by the three events.

### ***The Onion Health and Nutrition Report***

*Australian Onions: A Health and Nutrition Overview*, originally delivered under VN18002, was updated twice with new research. The 2022 update included a PubMed search to identify new research, the review and distillation of more than 40 published scientific papers including a systematic review of uses of onion for health conditions, as well as research on the impacts of onion in cancer therapy, Alzheimer's disease and obesity. The 2024 update followed the same process and included new scientific research on onions high levels of phytochemicals including quercetin, sulfoxides and anthocyanins. It also provided nutrition information by onion variety (white, red and brown) for both cooked and raw. Both reports were redesigned, and the updated documents were housed on the digital hub. *The Onion Health and Nutrition Report, 2022* and *The Onion Report 2024* formed the basis of health messaging for the program. They were disseminated via EDM, as part of social lead generation campaigns and at conferences. A total of 1,530 copies were either downloaded or distributed as hard copies. The reports also delivered in 36,960 opportunities to see on social media.

### ***Digital Hub***

A digital hub for health professionals and food service was created as part of the Australian Onions website at [australianonions.com.au](http://australianonions.com.au). The digital hub was central to our digital ecosystem, generating sign-ups to the EDM, providing a home for the digital suite of assets, and a key location for the publication of scientific literature reviews and research updates, recipes and other resources for health and food service professionals, dietitians, GPs, fitness professionals and their patients and clients as well chefs and culinary educators.

Asset dissemination (website downloads and handouts) worked well, with strong downloads from health professionals (7,446 vs original 2,000 KPI and updated 7,200 KPI). Food service downloads gained momentum across the program with total downloads exceeding expectations (2,217 vs the original KPI of 1,500 KPI and updated KPI of 1,300).

Website KPIs were revised at the end of year three, based on program learnings. Total sessions a month met the revised KPIs, however, monthly users remained slightly below the revised KPI.

## Outputs

Table 1. Output summary

| Outputs                                                                 | Description                                                                                                                                                                                                                                                         | Detail                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Benchmark and Year Three Research</b>                                | Online surveys with each target audience. Conducted at beginning of the program to establish benchmarks and inform program development. Conducted at the end of year three to measure the impact of the program and inform both year four and future programs.      | Online audience surveys (benchmark survey November 2021 and three-year survey February 24) conducted among both health professionals and food service professionals. The four surveys in total were conducted via survey monkey, results were analysed and reported to PRG, and detailed results reports delivered to Hort Innovation (January 2022 and May 2024).                             |
| <b>Brand Guidelines and Digital Hub</b>                                 | Build onions nutrition digital hub as a subdomain on current Australian Onions site. Hub houses a library of local/international research, health and culinary professional resources, reports, and a bank of shareable content and link to Good Mood Food website. | The <a href="#">Australian Onions Health Professional</a> and <a href="#">Australian Onions Food Service</a> hubs built and developed. Brand guidelines created to differentiate the section from the consumer site. Content interactive, accessible, and based on credible science, along with key educational tools and resources addressing therapeutic diets with the inclusion of onions. |
| <b>Database Acquisition and CRM</b>                                     | CRM database created and active subscribers.                                                                                                                                                                                                                        | A CRM database of 3,068 health and food service professionals.                                                                                                                                                                                                                                                                                                                                 |
| <b>Fact Sheets</b>                                                      | Onion health professional and culinary resources written, designed, and uploaded to digital hub for downloading and hard copies available.                                                                                                                          | <a href="#">Patient resources</a> (9)<br><a href="#">Culinary resources</a> (4)                                                                                                                                                                                                                                                                                                                |
| <b>Onion Health and Nutrition Report 2022 and The Onion Report 2024</b> | Updated latest science supporting health benefits of onions, designed report uploaded to website in both 2022 and 2024 for downloading and shared at conferences, workshops & farm tours and health influencers.                                                    | <a href="#">Australian Onions Health and Nutrition Report, 2022 and The Onion Report 2024</a> .<br><br>A total of 1,530 copies were either downloaded or distributed at conferences. Downloads tracked via Google analytics and incorporated into dashboard reporting.                                                                                                                         |
| <b>Quarterly EDMs and Research Alerts</b>                               | Thirteen EDMs for health professionals/ 12 EDMs for food service professionals created and distributed. Seven research alerts distributed to health professionals (note, due to a lack of new published papers, one research alert was reallocated as an HCP EDM).  | EDMs health professionals (April 22, July 22, Oct 22, Dec 22, Feb 23, May 23, Aug 23, Nov 23, Feb 24, April 24, Aug 24, Dec 24, Jan 25).<br><br>EDMs food serve professionals (April 22, Aug 22, Oct 22, Dec 22, Feb 23, May 23, Aug 23, Nov 23, Jan 24, April 24, Aug 24, Jan 25).<br><br>Research Alerts (May 22, Nov 22, Feb 23, June 23, Oct 23, Feb 24, Aug 24).                          |
| <b>Research Updates</b>                                                 | Research updates posted to the Digital Hub.                                                                                                                                                                                                                         | There are 13 <a href="#">research updates</a> on the digital hub. Reporting / tracking via PRG.                                                                                                                                                                                                                                                                                                |
| <b>Onion Farm Tours</b>                                                 | Four farm tours:                                                                                                                                                                                                                                                    | Four farm tours delivered and supporting videos                                                                                                                                                                                                                                                                                                                                                |

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|                                                                                                 | <ol style="list-style-type: none"> <li>1. Mitolo SA, June 22</li> <li>2. Mitolo SA, Oct 23</li> <li>3. Qualipac QLD, Nov 23</li> <li>4. Premium Fresh Tas, April 24</li> </ol>                                                                                                                | <p>disseminated via EDM to amplify impact - <u>Farm tour - Health professionals</u> and <u>Farm tours - Food service</u>. Metrics reported for farm tours in PRG #3, #5, and #6, as well as all four farm tour reports delivered.</p>                                                                                                                                                                                                                                                                                                    |
| <b>Professional Conference Program</b>                                                          | <p>Three conferences completed:</p> <ol style="list-style-type: none"> <li>1. DA: 14-16 Aug 22</li> <li>2. GPCE: 19-21 May 23</li> <li>3. DA: 18-20 August</li> </ol>                                                                                                                         | <p>Three conferences completed – <i>Dietitians Australia, August 2022; GPCE, May 202; and Dietitians Australia, August 2024</i>. Metrics reported at PRG #3, #5, #7 along with attendance reports.</p>                                                                                                                                                                                                                                                                                                                                   |
| <b>Workshops</b>                                                                                | <p>Six workshops completed:</p> <ol style="list-style-type: none"> <li>1. TAFE Ryde, June 22</li> <li>2. Fine Food Aust, Sept 22</li> <li>3. Marley Spoon, March 23</li> <li>4. Common Commons, Sept 23</li> <li>5. Fine Food Aust, Sept 24</li> <li>6. Camperdown Commons, Oct 24</li> </ol> | <p>Six workshops delivered. Supporting video disseminated via EDM to amplify impact - Food service workshop <u>Fine Foods Australia</u>. Metrics reported in PRG #3, #4, # 5, #6, and #7 as well as workshop reports delivered. Additionally for this audience, an editorial piece was included in Hospitality Magazine Feb 2024 (Hard &amp; Digital) with feature on Australian brown onions (Audited Average Net Distribution 11,506). This editorial piece was also share on LinkedIn by STTS and shared by Hospitality Magazine.</p> |
| <b>Industry Grower Communication</b>                                                            | <p>Contribute to industry grower communications.</p>                                                                                                                                                                                                                                          | <p>Contributed to 13 publications and attending one conference. This includes Onions Australia e-newsletter (March 22, June 22, March 23), Onions Australia magazine (Oct 22, Nov 23), AusVeg Vegetables Aus (Autumn 23), AusVeg Australian Grower (Summer 23/24, Autumn 24, Winter 24, Spring 24, Summer 24/25), AUSVEG e-News (Nov 23, May 24) and presented at Australian Onions Conference (14 Oct 22). Nutrition video produced.</p>                                                                                                |
| <b>Global Research Centre Collaboration</b>                                                     | <p>Collaboration and engagement with international organisations (NOA).</p>                                                                                                                                                                                                                   | <p>Ongoing collaboration and sharing of resources underway with Teri Lichtenstein via Zoom meetings/email with NOA Director of Public and Industry Relations Renee Hardwick (Sept 21, Oct 22, Nov 22, Jan 23, April 23 and Feb 24). Sharing of NOA newsletter. Have tried unsuccessfully to contact Produce for Better Health (Facebook message June 21, Nov 22, email to marketing manager Feb 24). Dialogue shared with PRG#6 about becoming an NOA international member.</p>                                                          |
| <b>Messaging House</b>                                                                          | <p>Key messaging house for onion industry set-up (password protected = AOIP).</p>                                                                                                                                                                                                             | <p>Summary report loaded on <u>Industry Portal</u> and shared with members.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Six Monthly Milestone Reports and PRG Meetings</b>                                           | <p>Detailed reports submitted every six months, along with PRG meetings, slide deck and minutes shared with members.</p>                                                                                                                                                                      | <p>Six milestone reports delivered and approved and six PRG meetings held, and minutes shared. PRG meetings held on 27 Jan 22, 12 April 22, 8 Nov 22, 14 April 23, 23 Nov 23, 9 April 24, and 19 Nov 24.</p>                                                                                                                                                                                                                                                                                                                             |
| <b>Program Logic, Monitoring and Evaluation Plan, Risks Register and Issues Management Plan</b> | <p>Program logic, monitoring and evaluation plan, risks register and issues management plan.</p>                                                                                                                                                                                              | <p>All reports/ plans agreed on and reported and reviewed annually.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Year Three Report</b>                                                                        | <p>Evaluation across all aspects of the three-year program with impact across each target audience.</p>                                                                                                                                                                                       | <p>Delivered detailed report at year three and final survey report.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Final Report</b>                                                                             | <p>Evaluation across all aspects of the three-year program with impact</p>                                                                                                                                                                                                                    | <p>Delivered detailed report at the end of the program.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|  | across each target audience. |  |
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## Outcomes

Table 2. Outcome summary

| Outcome          | Alignment to fund outcome, strategy and KPI                                                                                                            | Description                                                                                                                                                                                                                                                              | Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Knowledge</b> | <b>Provided health and food service professionals the most up-to-date information on the nutrition health benefits of onions</b>                       | A suite of health and food service professional tools were created, based on the most up-to-date science on the health and nutrition benefits of onions. This included 33 new assets covering a new health report, fact sheets, meal plans, research updates and videos. | Educational assets downloaded from the website hub 9,663 times. The audience surveys showed a 288% increase in health professionals who found the Australian Onions nutrition resources useful or very useful (31%, up from 8% at benchmark). For food service professionals, more than half (57%) obtained resources on culinary tips and nutritional properties of onions and found them useful (a 148% increase, up from 23% at benchmark).                                                     |
| <b>Attitude</b>  | <b>Demonstrated understanding of and support for the benefits of recommending or including more onions among health and food service professionals</b> | Health and food service professionals were educated throughout the program both and engaging digital program (EDMs and digital advertising) as well as face-to-face at conferences, workshops, farm tours.                                                               | The audience surveys found a 22% increase in health professionals who could correctly identify nutrients associated with onions (44%, up from 36% at benchmark) and a 20% increase those who could correctly identify health benefits associated with onions (36%, up from 30% at benchmark). It also asked food service professionals why they were included more onions in their recipes or menu items (see findings below), and more than one third (37%) said it was for nutritional benefits. |
| <b>Behaviour</b> | <b>Demonstrated increase in usage and likelihood to recommend onions among health and food service professionals</b>                                   | The face-to-face program elements provided hands on demonstrations of ways to include more onions while reinforcing the reasons to include more from a health and nutrition perspective.                                                                                 | The audience surveys found 44% of healthcare professionals reported recommending their patients and clients consume onions once a week or more (a 7% increase, up from 41% at benchmark).<br><br>It also found a 77% increase in food service professionals who reported always including onion as a key ingredient in a meal or menu item (39%, up from 22% at benchmark), and a 120% increase those who reported daily use of onions (66%, up from 30% at benchmark).                            |

## Monitoring and evaluation

Table 3. Key Evaluation Questions

| Key Evaluation Question                                                                                                                                                                                                                      | Project performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Continuous improvement opportunities                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>To what extent has the project increased knowledge, awareness and advocacy of Australian onions via healthcare and food service industry professionals regarding the health and nutrition benefits and wider culinary uses of onions?</i> | <p><b>Knowledge:</b> Consistent and notable increase acknowledging that onions were very important in supporting overall health within a balanced diet, rising in healthcare professionals from 31% at benchmark to 41% in year three – a 32% increase.</p> <p><b>Attitude:</b> Nine out of 10 food service professionals (93%) agreed onions were very important, important or somewhat important in supporting overall health, within a healthy diet. More healthcare professionals (44%) are recommending their patients and clients consume onions once a week or more – a 7% increase from benchmark (44%, up from 41%).</p> <p><b>Advocacy:</b> 44% of healthcare professionals reported recommending their patients and clients consume onions once a week or more (a 7% increase, up from 41% at benchmark).</p> | <p>Continue to build, invest, and raise awareness in the future of Onions HCPs program. In a competitive environment, program consistency and longevity will ensure continued knowledge, awareness and advocacy.</p> <p><i>*Full report please refer to VN20002 Education health and food service professionals Year Three Research Report.</i></p> |
| <i>To what extent has the project improved the position of onions in nutrition eating messages for consumers and highlighted the importance of onions for good health and disease prevention?</i>                                            | <p>The health report and nutrition messages were leveraged in VN23620 through its social and earned media programs. In addition, there has been a notable pickup of the language around elevating onions to be the hero of the dish within the food service sector which is translating to consumer contexts. An example of this was seen in a 2024 season of MasterChef where onions were the star ingredient in a cooking challenge and the language ‘humble to hero’ was used.</p>                                                                                                                                                                                                                                                                                                                                    | <p>Strengthen ways to capture consumer pick up of nutrition messages in future programs.</p>                                                                                                                                                                                                                                                        |
| <i>Has the project provided sufficient and effective health information on the digital hub to amplify key health messages and influence behaviour change?</i>                                                                                | <p>A suite of health and food service professional tools were created, based on the most up-to-date science on the health and nutrition benefits of onions. This included 33 new assets covering two new health reports, fact sheets, meal plans, research updates and videos. The audience surveys showed a 288% increase in health professionals who found the nutrition resources useful or very useful (31%, up from 8% at benchmark). More than half of food service respondents (57%) who had obtained resources on the culinary tips and nutritional properties of onions and found them useful (a 148% increase, up from 23% at benchmark).</p>                                                                                                                                                                  | <p>Continue to develop and promote new assets to maintain a vibrant digital hub for health and food service professionals. Continue database acquisition to maximise reach of assets and drive stronger return on investment.</p>                                                                                                                   |
| <i>Are the outcomes of this project consistent with the need to</i>                                                                                                                                                                          | <p>There has been an increase in the recommendation of onions with 44% of</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>This result is a strong indicator of the value of consistent and</p>                                                                                                                                                                                                                                                                             |

|                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                         |
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| <p><i>educate healthcare and food service professionals on the specific health benefits of onions - by providing credible, evidence-based information and resources - thereby increasing recommendation and culinary use of onions?</i></p>                                                                 | <p>healthcare professionals recommending their patients and clients consume onions once a week or more (a 7% increase on benchmark). There has also been an increase in the use of onions in recipes and menus, with 66% of food service professionals including onions daily in a recipe or menu item (a 120% increase, up from 30% at benchmark).<br/>*Full report please refer to VN2000s Educating health professionals on the nutrition and health benefits of onions Year Three Survey: Summary Report.</p>                                                                                               | <p>ongoing education to keep the nutrition and health benefits of onions top-of-mind.</p>                                                                                                                                                                                                                               |
| <p><i>Has the project made information and resources on the health and nutrition benefits of onions more readily available to healthcare and food service professionals to educate their patients and utilise in meal and menu preparation?</i></p>                                                         | <p>A suite of health and food service professional tools were created, based on the most up-to-date science on the health and nutrition benefits of onions. This included 33 new assets covering two new health reports, fact sheets, meal plans, research updates and videos. These were shared with our audiences via EDMs and at conferences, workshops and farm tours. Health professional resources were the most useful resources (25%), followed by research alerts/updates (24%), and social media posts (23%). Anecdotal feedback praised the quality, design and attractiveness of the resources.</p> | <p>Maintain quality outputs and build in further personalisation where possible.</p>                                                                                                                                                                                                                                    |
| <p><i>Has the project kept the PRG, and industry levy payers informed on activities, resources and communication activities developed to promote the onions to Australian healthcare and food service professionals?</i></p>                                                                                | <p>Regular PRG meetings (7) were held along with 13 articles in industry publications and attendance at the Onions Australia conference. Further, an industry portal was established to house a summary of nutrition claims for growers so they could utilise the information throughout their networks.</p>                                                                                                                                                                                                                                                                                                    | <p>Continue PRG and maintain relationship with AusVeg to supply ongoing articles for industry channels.</p>                                                                                                                                                                                                             |
| <p><i>Have the project's target engagement levels for healthcare and food service professionals been achieved (as measured by the surveys at commencement for benchmarking, and at project conclusion, in addition to other measures including EDM engagement stats and website portal statistics)?</i></p> | <p>A total of 3,068 people have subscribed to the EDM database and a total of 9,663 educational assets have been downloaded from the website or handed out at conferences and events. Growing momentum of the digital program has seen website activity increase in the final year of the program, peaking at 224 web sessions/month for health professionals and 104 website sessions/month for food service professionals, in November 2024.</p>                                                                                                                                                              | <p>Continue to build the database and amplify existing assets wherever possible to maximise investment and maintain momentum. Food service professionals are less likely to visit the website, which reinforces the need to maintain the workshops, culinary conferences and farm tours as part of the program mix.</p> |
| <p><i>Have industry levy industry payers and stakeholders been effectively engaged throughout the project and enabled to receive updates and provide feedback?</i></p>                                                                                                                                      | <p>Regular engagement via the PRGs has effectively engaged industry levy payers along with direct industry communications.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Continue to identify opportunities to share the program outputs and outcomes with growers. Secure stronger industry representation on future PRGs.</p>                                                                                                                                                               |
| <p><i>To what extent has the project educated healthcare and culinary professionals on the nutritional and health benefits of onions?</i></p>                                                                                                                                                               | <p>The project has seen a significant lift in understanding of the nutrition and health benefits of onions among health and food service professionals. Specifically, a 22% increase in health professionals who could correctly identify nutrients associated with onions (44%, up from 36% at benchmark) and</p>                                                                                                                                                                                                                                                                                              | <p>Audience tracking is critical to measure the program impact. While the extension program did not allow for another round of audience research, through KPI tracking it has captured a total download of educational assets of 9,663 and +2.2 million potential</p>                                                   |

|                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                     |
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|                                                                                                                                                                                                   | a 20% increase those who could correctly identify health benefits associated with onions (36%, up from 30% at benchmark). When asked why they were including more onions in their recipes or menu items, and more than one third (37%) of food service professionals said it was for nutritional benefits.                                                                                                                                                                                                     | opportunities for health and food service professionals to see the program messages.                                |
| <i>Were the interest and engagement levels of the beneficiaries from the project's activities - including farm tours, conferences and workshops – sufficient to achieve the desired outcomes?</i> | Feedback from activations was very positive across farm tours, conferences and workshops. Farm tour hosts were also very accommodating of the tours and appreciative of the supplied visual resources and video content.                                                                                                                                                                                                                                                                                       | Consider more face-to-face events in cities rather than on farms to connect with more people more cost efficiently. |
| <i>Did the audience benchmark research adequately identify the barriers and drivers to recommending and utilising onions?</i>                                                                     | The benchmark survey identified barriers and drivers, including existing knowledge levels, assets of value and preferred communication methods. The program was structured to address them.                                                                                                                                                                                                                                                                                                                    | Implement future programs in line with this understanding.                                                          |
| <i>How appropriate were the project's communication channels to deliver evidence-based information about Australian onions to healthcare and food service professionals?</i>                      | The Health and Food Service Professionals Nutrition Digital Hub provided a dynamic platform with a comprehensive database of evidence, reports and resources to support the health and nutrition benefits of onions. Face-to-face communications, including farm tours, workshops and health professional conferences provided an effective tool to reinforce this information and connect the target audience directly to the industry. The audience surveys confirmed that these platforms were appropriate. | The audience surveys show a notable shift towards digital platforms.                                                |
| <i>How easily accessible and relevant were regular project updates, KPI reporting and other communication activities to industry levy payers and stakeholders?</i>                                | Regular engagement was maintained via project reporting, PRG six-monthly meetings, milestone status reports and regular industry communications and updates. Our understanding from the PRG is that these were easily accessible and relevant.                                                                                                                                                                                                                                                                 | Continue reporting via PRGs and industry updates via grower communication channels.                                 |
| <i>How did project team ensure the project was delivered on time and within budget?</i>                                                                                                           | A three-year project plan was developed at the outset to ensure workflow and deliverables were clear for the core team and subcontractors. This was updated in line with the extension. WIP meetings were held fortnightly and PRG meetings every six months. The budget was tracked monthly.                                                                                                                                                                                                                  | Continue best-practice governance with oversight provided by PRG.                                                   |

## Recommendations

Health and food service professionals are key influencers of consumer behaviour. VN20002 drove changes in knowledge, attitude and behaviour among these two audiences through the combination of dynamic digital and face-to-face education activities to keep onions and their benefits top-of-mind. Specifically:

- a 22% increase in health professionals who could correctly identify nutrients associated with onions (44%, up from 36% at benchmark) a 20% increase those who could correctly identify health benefits associated with onions (36%, up from 30% at benchmark);
- a 77% increase in food service professionals reported always including onion as a key ingredient in a meal or menu item (39%, up from 22% at benchmark);
- a 120% increase those who reported daily use of onions (66%, up from 30% at benchmark); and
- when asked why they were including more onions in their recipes or menu items, more than one third (37%) said it was for nutritional benefits.

The multi-channel program delivered more than 2.2 million opportunities to learn more about the nutritional and culinary benefits of onions and reached time poor audiences by catering to different learning styles, interests and preferences.

Interactive education at three health professional conferences, four farm tours, and six food service workshops provided high impact, one-on-one engagements with 2,175 health and food service professionals. This was underpinned by a steady stream of digital communications, including 32 EDMs and research alerts, six automated email journeys and social media amplification of events and resources. EDM open rates were 54% higher than industry benchmarks and click through rates were 760% higher, demonstrating strong engagement and value of content and resources (9,660 resources distributed print and online).

With 3,068 health and food service professionals now on the database, there is significant scope to build on the momentum and investment by continuing to provide health and food service professionals with evidence-based information and tools to educate patients and inspire the use of onions in food service settings.

### Scientific reports and resources

Scientific research on onions and its specific nutrient components is undertaken at academic institutions around the world, consistently building the evidence base for nutrition and health related claims. Between 2021 and 2024, there were 22 relevant new scientific studies.

By monitoring and reviewing this research, we can share high impact studies with health and food service professionals to maintain their knowledge and keep onion nutrition and health benefits top-of-mind. We can also identify opportunities for future research investment for the industry that have the potential to drive consumer demand. For example, the most recent scientific review The Onion Report 2024 found emerging research on onion antioxidants and their benefits to gut health.

**Recommendation:** *Maintain research monitoring and dissemination.*

### Digital hub, database and direct communications

The VN20002 investment in building a direct communications channel created an engaged database of 3,068 health and food service professionals. The program saw increased momentum across digital communications, driven by effective customer relationship management, including automated journeys triggered when people engage with the site, and regular EDMs.

**Recommendation:** *Capitalise on the investment in the digital infrastructure by continuing to deliver credible and relevant information to keep onions top-of-mind for these engaged audiences. Leverage the latest findings on unique onion antioxidants and gut health benefits for new content that health professionals can share via their channels to influence consumer behaviour. Consider new ways – for instance a Dietitian Connection partnership for Gut Health Month – to tell the unique onion gut health story.*

### Farm tours, conferences, workshops

The face-to-face events delivered through VN20002 were pivotal for engaging target audiences and challenging perceptions about onions. Integrating culinary experiences at health professional conferences and nutrition presentations

at food service events and workshops served as a key differentiator and drawcard, genuinely delivering on elevating onions from humble to hero. Farm tours provided in-depth education opportunities and created onion advocates who amplified their learnings through their networks, although they were high-cost-per-contact activities. For food service professionals, the workshops and presence at key events like Fine Foods were highly effective at engaging high quality chefs and purchase decision makers.

***Recommendations:** Maintain the focus on culinary nutrition at health conferences but consider including city-based educational experiences as an alternative to farm tours e.g. market tour to reduce the cost per contact. Continue food service engagement through workshops, events and social media to continue to challenge perceptions of ways to hero onions on food service menus.*

## Overall

The VN20002 program delivered strong results that ultimately impacted recommendation and usage behaviour. There are significant opportunities to build on this momentum and maintain a culinary nutrition program that continues to influence consumers through health and food service professionals.

***Recommendations:** To maximise impact, embed closer linkages with marketing to ensure the programs are cross-leveraging knowledge. Future programs could also explore opportunities to reduce duplication and increase cost efficiencies across Hort Innovation education programs by integrating health professional database management and CRM systems, while still delivering unique Australian onions communications.*

## References

- Australian Onions Nutrition Digital Hub: [Australian Onions Health Professional](#) and [Australian Onions Food Service](#)
- Onion Health and Nutrition Report [Australian Onions Health & Nutrition Report, 2022](#)
- [The Onion Report 2024](#)

## Intellectual Property

No project IP or commercialisation to report.

## Acknowledgements

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