

Final Report

Olive Oil Food Service Program

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Nutrition Australia

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OL16004

Project:

Olive Oil Food Service Program – OL16004

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Summary

The Olive Oil Food Service Program aims to increase awareness of Australian extra virgin olive oil (AEVOO) amongst the primary target audience of trainee chefs within their learning environment such as TAFE's and other culinary schools. The first 6-months of the project saw the completion of the "Research phase" during which a literature review, desktop research and in-depth interviews with key stakeholders were conducted. The research was used to develop key messages articulated in a communications and engagement plan that shaped the proposed education program for trainee chefs.

The subsequent 5-months saw the commencement of the project's "Development phase" where we worked with an external digital agency to create 3 educational videos featuring 3 established chefs and a technical expert talking about the benefits, attributes and properties of AEVOO. Following on from the educational videos 3 supporting factsheets were created:

- In the kitchen
- Selecting high-quality extra virgin olive oil
- The benefits of Australian extra virgin olive oil

These factsheets synthesized the key messages from the videos and expanded on technical information underpinning the health and safety messages. The resources are suitable to be used by the industry for promotion of AEVOO.

A webpage on the [Australian Extra Virgin Olive Oil](#) ('Australian everyday') consumer website was created specifically for chefs where the videos and factsheets are now hosted. This webpage is the central point for the rollout of communication strategies to the project's secondary target audience; established chefs in the foodservice industry.

From July 2018, the project's "Implementation phase" commenced and saw the rollout of planned communication activities which included:

- Engagement with TAFE colleges in Victoria and New South Wales to showcase the videos to trainee chefs and/or embed the resources within the Certificate III in Commercial Cookery
- Dissemination of videos via sponsored posts on the Australian Everyday Facebook account to trainee and established chefs

Evaluation data was collected via distribution of retrospective surveys in class to measure change in knowledge on the benefits, attributes and properties of AEVOO of trainee chefs. Phone interviews were also conducted with three TAFE teachers involved in the project to explore how the resources supported their teaching and the extent to which a shift in AEVOO awareness is likely to lead to change in practice.

The results from the evaluation showed that overall, the Olive Oil in Food Service program was successful in achieving its aim to increase awareness of the benefits, attributes and properties of AEVOO and encourage its purchase and use through three educational videos and resources disseminated to trainee chefs. In addition there was a positive shift in trainee chefs' confidence to use AEVOO in variety of different cooking methods. Teachers also found the resources were informative and a value-add, supported their teaching and were easy to implement in class and embed into their curriculum. Teachers however thought that students would also benefit from an additional practical component. A summary of recommendations are included at the conclusion of this report for the industry's consideration.

Keywords

Australian extra virgin olive oil (AEVOO), extra virgin olive oil (EVOO), food service, TAFE, chefs, trainee chefs, culinary schools

Introduction

The consumption of olive oil has grown considerably over the past 20 years and to meet this demand worldwide production of olive oil has doubled¹. Greece, Italy and Spain remain the major producers of olive oil; however there is significant growth in production in other countries including the United States and Australia.

Australian extra virgin olive oil is of the highest quality against international standards and there are over 900 extra virgin olive oil producers in Australia supplying local and export markets. There is currently a profound lack of knowledge and misconceptions in the Australian food sector about the benefits of using and consuming AEVOO over imported or alternative products. Lack of knowledge includes how the product is produced, variety of taste profiles, health benefits, storage and use in cooking and food preparation.

There is a significant opportunity to better inform stakeholders in the food service sector about the specific attributes, properties, benefits and uses of AEVOO. Nutrition Australia acknowledges this is a high priority in the Hort Innovation Olive strategic investment plan. This project aimed to increase awareness of the benefits, attributes and properties of AEVOO and encourage its purchase and use through three educational videos and resources disseminated to students, using a chef-to-chef method of communication. The educational resources were disseminated via TAFE colleges in Victoria and New South Wales.

The project objectives were:

- Gain a better insight of the current usage patterns, and the purchase and consumption drivers of the food service sector in Year 1.
- Gain a better insight of competitor products, and domestic and international food trends relevant to the food service sector in Year 1.
- Collect information on the attributes, benefits and uses of Australian EVOO and create food service specific educational material in Year 1.
- Delivery of educational information to identified priority food service stakeholders and counteracting existing misconceptions of olive oil in Year 2.
- Communication of food service sector expectations and requirements around olive oil to growers for them to align/modify their business practices in Year 2.

The overall outcomes of this project aimed to meet Hort Innovation's Strategy 2.3 a desire to ensure key information about the product is clearly and widely communicated to industry and pipeline customers through "Education of customers, especially chefs and the food service industry, about the health benefits of olive oil and how to cook with Australian extra virgin olive oil".

¹ <http://www.oliveindustrynetwork.com.au/Directory/consumer-perception-attitudes-liking-and-preferences-for-olive-oil-article-142.aspx#.WLeB7m-GOUk>

Methodology

In summary, Nutrition Australia undertook the following project methodology:

- Year 1 - Research and scope food service industry use of olive oil including barriers and drivers and commence development of educational material (videos and factsheets).
- Year 2 - Disseminate educational videos and resources to communicate messages to culinary and or hospitality students at TAFE colleges, in Victoria and New South Wales.

The table below outlines in detail the activities that were undertaken as part of the project methodology.

Table 1) The Olive Oil Food Service Program (May 2017 – May 2019) project methodology

Phase	Activity	Description
<i>Research (Year 1)</i>	Conduct stakeholder interviews	Stakeholder interviews were conducted to gain insight into usage patterns, purchase and consumption drivers of the food service industry in relation to AEVOO. Barriers and drivers for purchase and consumption of EVOO and competitor oils were identified. Nine interviews were completed with chefs (8 chefs, 1 'self-taught' cook) from various sub-sectors of food service (including: fine dining restaurants; cafes; institutional retail and catering; and pubs).
	Conduct literature review	A literature review was undertaken that included published peer-reviewed journals and grey literature from the past 17 years (2000-2017) of the evidence on benefits, properties and attributes of EVOO and AEVOO. This evidence was used to inform key messages in the education material developed for trainee chefs.
	Collate food service insights	Desktop research was utilised to gain a greater understanding about food service sector trends and competitor products to AEVOO. Publically available (free-to-access) data on food service industry trends was used. In addition, to gain insight into competitor products to AEVOO we reviewed the product lists from four large food service distribution companies to determine: (a) if AEVOO was available to the food service industry and (b) volumes of AEVOO available vs. volumes of other oils.
	Conduct SWOT analysis	Research findings from the three aforementioned activities were used to create a Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis of AEVOO within the food service sector.
<i>Planning (Year 1)</i>	Develop Communications and Engagement plan	A summary of research findings and the SWOT analysis were shared with FULLER Brand and Communications (FULLER) to assist them with the development of the Communications and Engagement Plan. This plan articulates the key messages to be incorporated into education resources (videos, fact sheets and webpage) for use by culinary training institutes and targeted at emerging (trainee) chefs.
	Develop Monitoring and Evaluation plan	A monitoring and evaluation plan for the program was developed by the project team in collaboration with an evaluation expert consultant.
<i>Development (Year 1 and 2)</i>	Create educational resources	We worked with FULLER to develop three educational videos and accompanying fact sheets. This involved the following process: <ul style="list-style-type: none"> • Design format and structure of videos • Develop a detailed storyboard of video format and content • Recruit three established chefs in the food service industry

Phase	Activity	Description
		<p>and engagement with an technical expert from the Olive industry to feature in the videos</p> <ul style="list-style-type: none"> Filming of three videos in Melbourne with FULLER team Complete post-production reviews of videos in consultation with the Project Reference Group and engaged TAFE colleges Creation of three factsheets* that summarise the key messages from the videos in consultation with the Project Reference Group. <p>*The factsheets are available to be used as standalone resources by the Olive industry.</p>
	Webpage created to house AEVOO resources	FULLER created a “Hospitality trade use” webpage on the Australian Everyday consumer website created specifically for chefs where the videos and factsheets are now hosted.
<i>Implementation (Year 2)</i>	Rollout of resources within TAFE colleges	Through a mixture of face-to-face, email and teleconference engagement, 3 TAFE colleges in Victoria and 3 TAFE colleges in New South Wales were invited to take part in the project to either embed the educational resources within their Certificate III in Commercial Cookery or showcase the resources in class to their students. TAFE teachers were given the opportunity to review the educational materials and advised the project team where they best thought the material fit within their curriculum before either embedding or showcasing.
	Dissemination to trainee and established chefs via social media	A month long Facebook social media campaign was carried out by FULLER in October 2018. Sponsored posts on the ‘Australian Everyday’ Facebook account were promoted to trainee chefs and established chefs working in foodservice.
<i>Monitoring and evaluation (Year 2)</i>	Conduct monitoring and evaluation in line with Monitoring and Evaluation plan	<p>Hard-copy retrospective surveys were sent to TAFE teachers to distribute to any students who watched the videos to complete in-class. The aim of the surveys was to measure the extent to which increased knowledge of AEVOO amongst trainee chefs was achieved. The survey included a series of statements about AEVOO in line with the key messages and for each statement the student had to rate their awareness and confidence <u>now</u> and <u>before</u> watching the videos.</p> <p>Phone interviews were also conducted with three TAFE teachers involved in the project to explore how the resources supported their teaching and the extent to which a shift in AEVOO awareness is likely to lead to change in practice. Interview duration was 10-20 minutes and a series of questions were asked that fell under the following themes:</p> <ul style="list-style-type: none"> How well the videos communicated the intended messages Improvements on videos and factsheets for future Perceptions of the support the videos and factsheets provided their teaching Perceived benefits of AEVOO knowledge on trainee chef future practice <p>Teachers were also given the opportunity to answer the questions via email if they were not available for a phone interview. A reduced number of questions were asked if this method was chosen to ensure the process was not labour intensive for the teacher.</p>

Outputs

The outputs for the project in line with each project phase have been listed below:

- 1) Research
 - Stakeholder interview report
 - Food service insights report
 - Literature review
 - SWOT analysis
- 2) Planning
 - Communications and engagement plan and key messages developed
 - Monitoring and evaluation plan
- 3) Development
 - Three videos
 - Three factsheets
 - Australian Everyday webpage and feature on Nutrition Australia's website
- 4) Implementation
 - Educational resources disseminated to TAFE colleges in Victoria and New South Wales
 - Educational resources promoted via social media
- 5) Monitoring and evaluation
 - Quantitative and qualitative evaluation data collected and analysed
 - Final report written
 - Summary report and short webinar for growers

Further details have been provided for each output.

Stakeholder interview report (Appendix 1)

Our findings highlight that whilst most chefs do use and value AEVOO, perceiving it to be of high quality, the oil is used in small amounts and for specific culinary purposes. Use of AEVOO is limited to 'finishing' (i.e. drizzling over a cooked dish) and using cold in dressings, sauces, marinades. The perception that EVOO should not be used in cooking due to it not being able to be heated at high temperatures, including shallow and deep frying, exists amongst chefs across the varying sub-sectors of the food service industry. Purchase and consumption drivers for AEVOO included: cost, taste, quality, access/availability of the oil and provenance (related to the increasing trend to promote local produce in food service). The research identified that there is significant opportunity to increase awareness about AEVOO in the food service industry, including education about quality, benefits, attributes and properties and culinary uses.

Food service insights for the Australian olive industry report (Appendix 2)

Our research revealed domestic and global food service sector trends of potential relevance to the Australian olive industry, including: increased demand for healthier food options; greater focus on food presentation; sustainability and use of local produce; greater awareness of 'healthy fats'.

In addition when looking at the product lists from four large food service distribution companies, it was found that whilst AEVOO was available for purchase from the large food service distributors, the volumes available were small (2 and 4 Litres) when compared with volumes available for canola oil, blended vegetable oils, cottonseed oil and sunflower oil (all available in 15 and 20 Litre volumes). As such, it can be assumed that the food service industry use of canola oil, blended vegetable oils,

cottonseed oil and sunflower oil is of larger volume compared to AEVOO. International EVOO was available in the same volumes as AEVOO, however, we know from stakeholder interviews (see Appendix 1) that international EVOO is a competitor product to AEVOO.

Review of the literature – attributes, benefits and properties of Australian extra virgin olive oil (Appendix 3)

The health benefits were well documented in the literature, in particular cardiovascular health benefits associated with the high concentration of phenolic compounds and antioxidants in EVOO and its fatty acid profile.

There is evidence to show that AEVOO can be of higher quality when compared with international varieties as it reaches Australian consumers much more quickly than imported EVOO making it ‘fresher’.

Flavour and diversity of AEVOO is influenced by the type of olive varietal, the soil they are grown in and harvesting time. Australia has a great variety of EVOOs due to the many growing regions, climates and soil types available. As a result, many different flavour profiles of AEVOOs are now available on the market, potentially diversifying its ability to be used in a wide range of meals and cuisines.

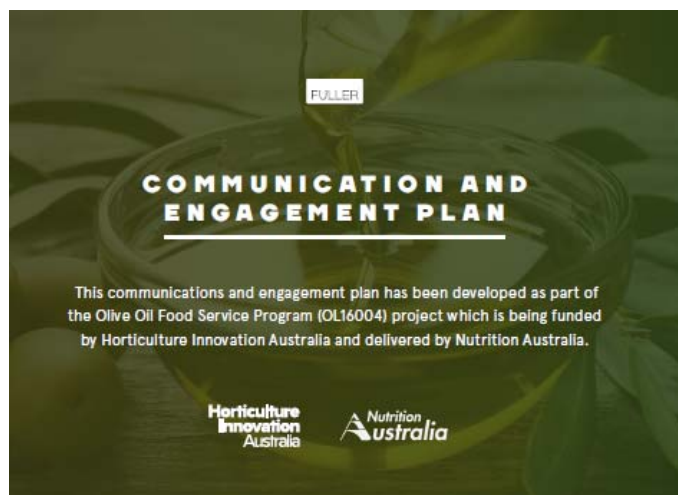
The evidence also highlights that high quality EVOO has a high smoke point (of between 200 and 215 degrees) and a high level of antioxidants ensuring it is a stable oil during cooking.

This evidence was used to inform key messages in the education material developed for trainee chefs.

SWOT analysis (Appendix 4)

Research findings from the stakeholder interviews, food service insights and literature review were used to create a Strengths, Weaknesses, Opportunities, Threats analysis of AEVOO within the food service sector. For detail see Appendix 4.

Communications and Engagement plan (Appendix 5)



This plan includes:

- Communication and engagement goal and objectives (short-term and medium-term)
- AEVOO adoption drivers and barriers within food service
- The Communications strategy
- Campaign message “Everyday in Everyway”
- Target audiences (future and current chefs)

- Key messages:
 - Versatility
 - Quality and freshness
 - Safety and health
 - Value
 - Flavour
 - Provenance
- Communication and engagement tactics and timeline

For detail see Appendix 5.

Monitoring and Evaluation plan (Appendix 6)

The Monitoring and Evaluation plan includes the program logic, overall scope that the evaluation of the project will focus on and key evaluation questions. For more detail see Appendix 6.

Three videos

The three videos promote the key messages of AEVOO as outlined in the communications and engagement plan.

The videos highlight three established chefs in the food service industry; Nicky Riemer, Ian Curley and Matt Dawson. Each chef talks about their career journey, demonstrates how to use AEVOO in two recipes and talks about why they use AEVOO in their cooking. Chief Oil making expert Leandro Ravetti discusses the technical aspects of AEVOO, thereby addressing the key messages and adding to the educational component of the videos.



The videos can be accessed and downloaded directly from Vimeo at the links below:

- 1) Nicky Riemer: <https://vimeo.com/fullervimeo/review/273420165/470e774201>
- 2) Matt Dawson: <https://vimeo.com/fullervimeo/review/273417472/6b03c9c68c>
- 3) Ian Curley: <https://vimeo.com/fullervimeo/review/273414882/cf8a42a0cf>

Three factsheets

Three factsheets have been developed which complement and summarise the key messages from each

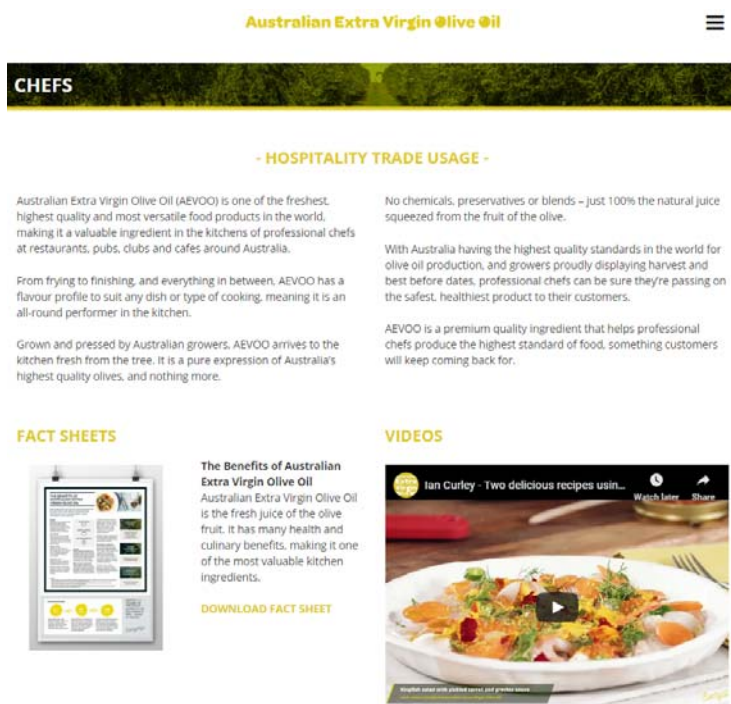
video. The title and overview of each factsheet has been listed below:

- 1) In the kitchen (Appendix 7) – summarising how to cook with AEVOO, myth busting and the truth about smoke point
- 2) Selecting high-quality EVOO (Appendix 8) – characteristics of a quality EVOO and the Australian code of practice
- 3) The benefits of AEVOO (Appendix 9) – overview of health benefits, quality, versatility and flavour



Australian Everyday webpage and feature on Nutrition Australia's website

A webpage on the [Australian Extra Virgin Olive Oil](#) ('Australian everyday') consumer website was created specifically for chefs where the videos and factsheets are now hosted. This webpage is the central point for the rollout of communication strategies to the project's secondary target audience; established chefs in the foodservice industry.



There is also a page on the Nutrition Australia [website](#) promoting the project and linking to the 'Australian everyday' website for more information.



Educational resources disseminated to TAFE colleges in Victoria and New South Wales

Throughout the lifespan of the project the team recruited and engaged with a total of six TAFE colleges to take part in the project. Table 2 below provides a summary of the TAFE colleges engaged and the associated activities.

To ensure longevity of the project we encouraged TAFE colleges to embed the resources within their curriculum so that trainee chefs would have access to them in future. Sunraysia TAFE was the only institution that did not embed the resources, with the assumption being that other competing priorities were the reason. TAFE teachers were also invited to showcase the videos within their classes.

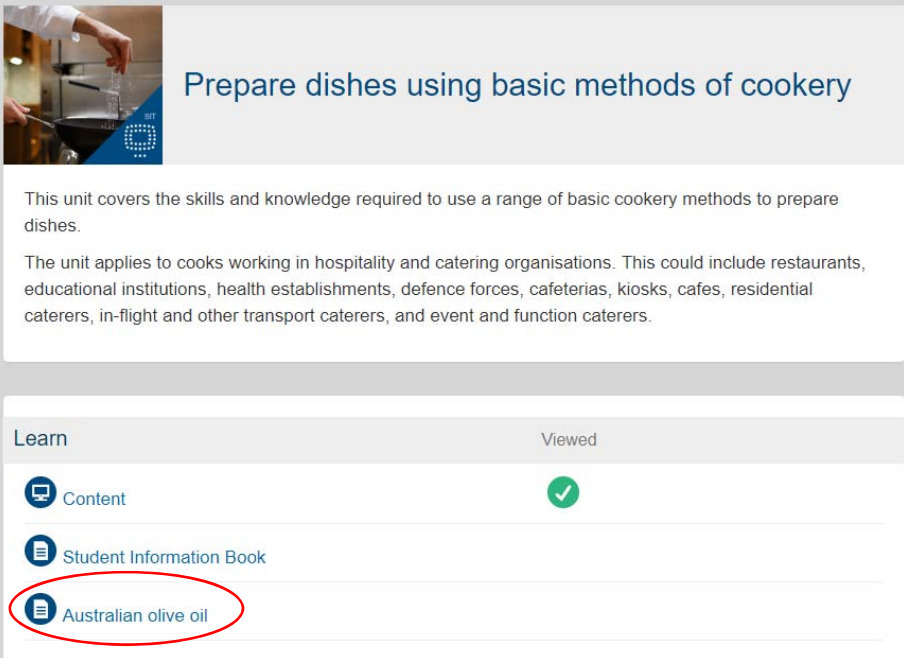
Estimated reach has been tallied for each TAFE which includes the number of trainee chefs the videos were showcased to (including those that completed evaluation surveys) and the number of trainee chefs the videos are available to now they have been embedded within the Certificate III in Commercial Cookery curriculum. The total estimated reach for trainee chefs during the lifespan of the project is 1190.

Table 2) TAFE college engagement summary

State	TAFE	Embedded resources into curriculum	Showcased videos	Units the resources were embedded within	Estimated reach
NSW	Albury TAFE NSW	✓	✓	<ul style="list-style-type: none"> Appetisers and salads Desserts Regional cuisine 	40 students
NSW	Ryde TAFE NSW	✓	✓	<ul style="list-style-type: none"> Appetisers and salads Basic methods of cookery Special dietary requirements Vegetables, fruit, egg and farinaceous dishes 	60 students
NSW	Ultimo TAFE NSW	✓		<ul style="list-style-type: none"> Appetisers and salads Basic methods of cookery Special dietary requirements 	300 students

				<ul style="list-style-type: none"> Vegetables, fruit, egg and farinaceous dishes 	
VIC	Holmesglen Institute	✓	✓	<ul style="list-style-type: none"> Appetisers and salads Basic kitchen skills Seafood 	75 students
VIC	Sunraysia TAFE		✓	n/a	15 students
VIC	William Angliss Institute	✓	✓	<ul style="list-style-type: none"> Appetisers and salads Basic methods of cookery 	700 students

An example of how the resources have been embedded within one of the units at Ryde TAFE NSW can be found below.



Prepare dishes using basic methods of cookery

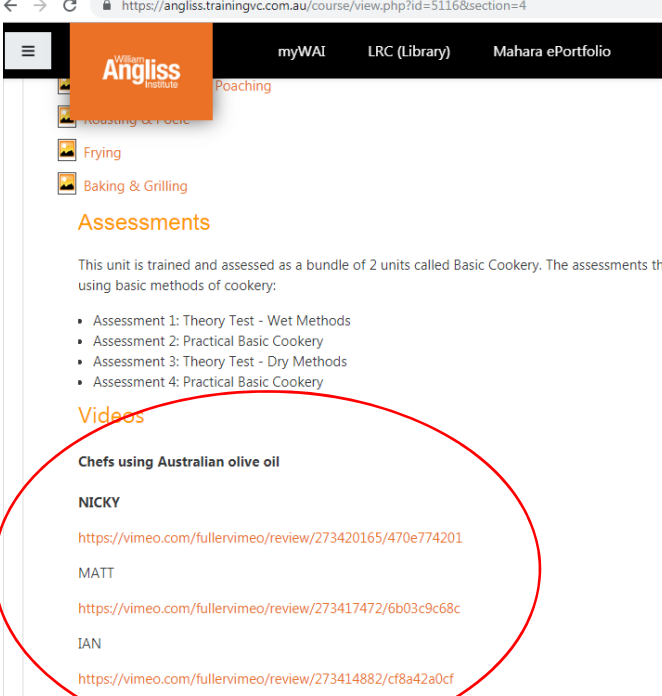
This unit covers the skills and knowledge required to use a range of basic cookery methods to prepare dishes.

The unit applies to cooks working in hospitality and catering organisations. This could include restaurants, educational institutions, health establishments, defence forces, cafeterias, kiosks, cafes, residential caterers, in-flight and other transport caterers, and event and function caterers.

Learn Viewed

- Content ✓
- Student Information Book
- Australian olive oil**

An example of how the resources have been embedded within one of the units at William Angliss Institute can also be found to the right.



← → ↻ <https://angliss.trainingvc.com.au/course/view.php?id=5116§ion=4>

myWAI LRC (Library) Mahara ePortfolio

William Angliss Institute

Poaching

Roasting & Baking

Frying

Baking & Grilling

Assessments

This unit is trained and assessed as a bundle of 2 units called Basic Cookery. The assessments that use basic methods of cookery:

- Assessment 1: Theory Test - Wet Methods
- Assessment 2: Practical Basic Cookery
- Assessment 3: Theory Test - Dry Methods
- Assessment 4: Practical Basic Cookery

Videos

Chefs using Australian olive oil

NICKY

<https://vimeo.com/fullervimeo/review/273420165/470e774201>

MATT

<https://vimeo.com/fullervimeo/review/273417472/6b03c9c68c>

IAN

<https://vimeo.com/fullervimeo/review/273414882/cf8a42a0cf>

Educational resources promoted via social media

A month long Facebook social media campaign was carried out by FULLER in October 2018. Facebook was selected as the most appropriate channel for this promotion given its broad audience reach, ability to target the appropriate audience and cost effectiveness.

FULLER's approach to Facebook distribution was to target trainee chefs (attending TAFE was also included as a targeting option) and established chefs utilising a budget of \$1500. A total of six advertisements (two per video based around the two recipes in each video) were produced and promoted as part of the campaign.

Results for the campaign were impressive:

- The campaign had total impressions of 270,537 and reached 46,528 people, of which approximately 85% (39,605) viewed the videos for at least 10 seconds. This is an outstanding result and shows that people targeted by the campaign were interested in the subject matter.
- The cost per ten-second video view was an outstanding \$0.04 per view.
- In addition, 288 clicks to the Australian Extra Virgin website occurred – a bonus given the campaign's focus was video views rather than click throughs to the website.
- The best performing advertisement featured Nicky Riemer (see screen shot below), which gained 12,153 ten-second video views and 83 website clicks.

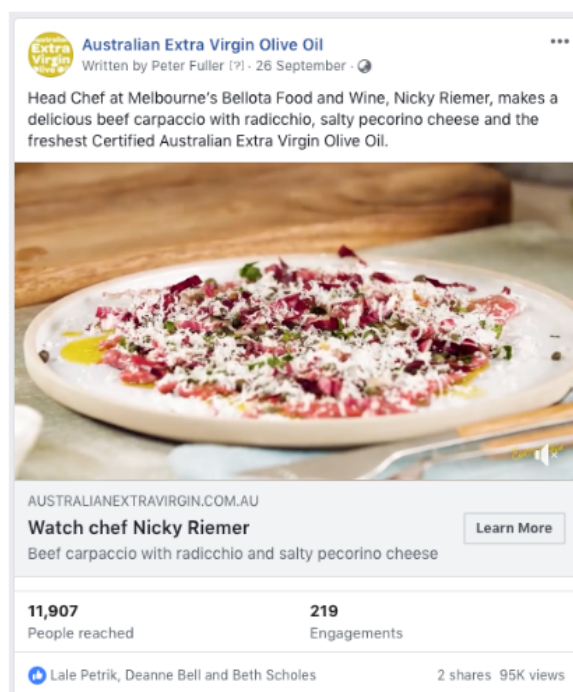
Key

Impression = one instance of a person seeing the ad

Reach = individuals who have seen the ad

Further details can be found in the full report, see Appendix 10.

Best performing Ad



Quantitative and qualitative evaluation data collected and analysed

See Monitoring and Evaluation section for further detail.

Summary report and short webinar for growers

In consultation with the Australian Olive Association CEO, a summary report and short webinar have been prepared for Olive growers to provide a high-level overview of the project activities and achievements. The main focus of the summary report and webinar is to advise the growers on how they can utilise the educational resources produced as part of this project

See Appendix 11 and Appendix 12 for further detail.

Outcomes

The main end-of-project outcome is an increased use of AEVOO amongst new cooks and chefs entering the Australian food industry. Guided by the program logic, Nutrition Australia addressed outcomes at the intermediate level. In this level two major outcomes were identified, first, improved knowledge and second, increased confidence of trainee chefs/cooks at participating institutes regarding the attributes, benefits and uses of AEVOO. The SWOT analysis also indicated the existence of misconceptions and gaps in knowledge about AEVOO within commercial cookery training courses. Strategies used to achieve the goals were:

1. Clarifying the myths/misconceptions about AEVOO in trainee chefs in selected commercial cookery courses.
2. Filling the gap in knowledge about the benefits, attributes and uses of AEVOO in food preparation in trainee chefs completing relevant commercial cookery courses.

The following assumptions underpinned the project rationale for the evaluation:

1. Greater understanding of the benefits of AEVOO will lead to greater use of AEVOO by trainee chefs and cooks in their practice.
2. From stakeholder consultation with TAFE teachers, culinary institutes have the capacity and interest in integrating resources about AEVOO into their existing curriculum.

Monitoring data was collected via the distribution of retrospective pre-test surveys to trainee chefs directly after watching the videos. Overall the survey results found that knowledge on the benefits and attributes of AEVOO of students successfully improved after watching the videos. An average of 49% of respondents reported their awareness of the benefits and attributes of AEVOO were “poor” or “fair” before watching the videos. This shifted to 92% of respondents reporting their awareness of the benefits and attributes of AEVOO were “good” or “excellent”.

When measuring the students’ confidence to use AEVOO in a variety of different ways (cooking, frying, sweet/savoury dishes, as a dressing), the survey results also showed an increase. An average of 46% of respondents reported they were “not confident at all” or “somewhat confident” to use AEVOO before watching the videos. This shifted to an average of 89% of respondents report they were “confident” or “very confident” to use AEVOO after watching the videos.

In summary, the intermediate outcome of improved knowledge and confidence of trainee chefs/cooks at participating institutes about the attributes, benefits and uses of AEVOO was successfully achieved by the Olive Oil Food Service Program.

Further detail can be found below in the Monitoring and Evaluation section below.

Monitoring and evaluation

Evaluation purpose

The aim of the evaluation was to evaluate the performance and effectiveness of the Olive Oil in Food Service program using a mixed-methods approach.

Evaluation methodology

Both quantitative and qualitative data collection methods were used for this evaluation. A self-administered survey questionnaire was used to trainee chefs in classroom after watching the videos. The survey covered questions on their knowledge change and confidence level of using EVOO. The data was then analysed using Microsoft Excel.

A total of 62 students completed the survey across three TAFE colleges in both Victoria and New South Wales (Albury TAFE NSW, Ryde TAFE NSW and William Angliss in Victoria). 78 invalid surveys were excluded from the evaluation to maintain the integrity of the data. The excluded surveys were either incomplete or were not filled out as per instructions and creating duplicates responders for one survey. The planned methodology was altered from the Monitoring and Evaluation plan mostly due to time limitations with TAFE teachers. The geographical spread of the TAFE colleges made focus group with teachers and students an unsuitable method as planned. This was modified and phone interviews with teachers were carried out.

Qualitative monitoring data was collected through phone interviews with teachers after project implementation. Verbal consent was obtained for the recording of the interviews. The recordings were then transcribed verbatim and thematically analysed.

Themes covered in the interview were:

- Clarity of the intended messages in videos
- Improvements on videos and factsheets for future
- Perceptions of the support the videos and factsheets provided their teaching
- Perceived benefits of AEVOO knowledge on trainee chef future practice

Key evaluation questions (KEQ)

Six key evaluation questions were posed in the Monitoring and Evaluation plan under the themes of effectiveness, relevance, process appropriateness and efficiency in order to measure the overall project's success. To what extent each key evaluation was achieved has been outlined below.

Effectiveness:

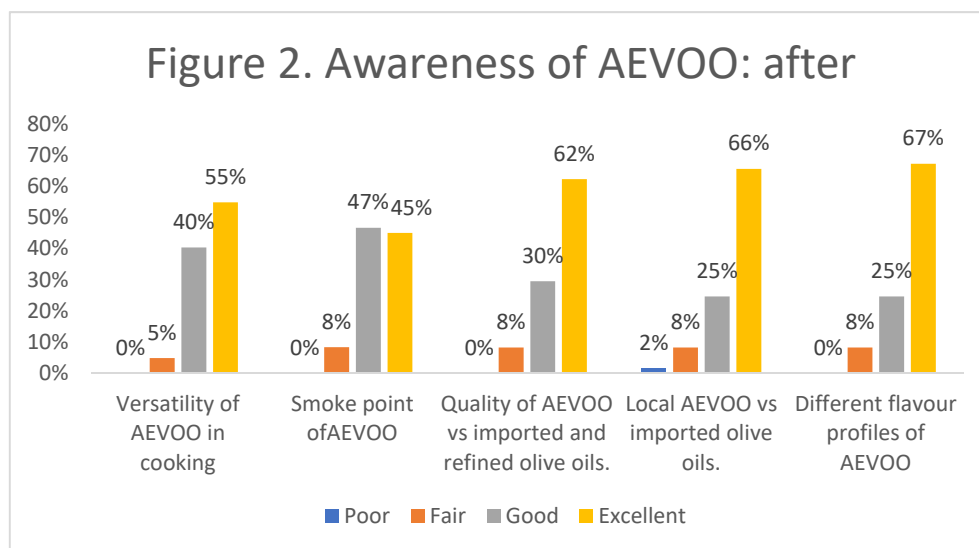
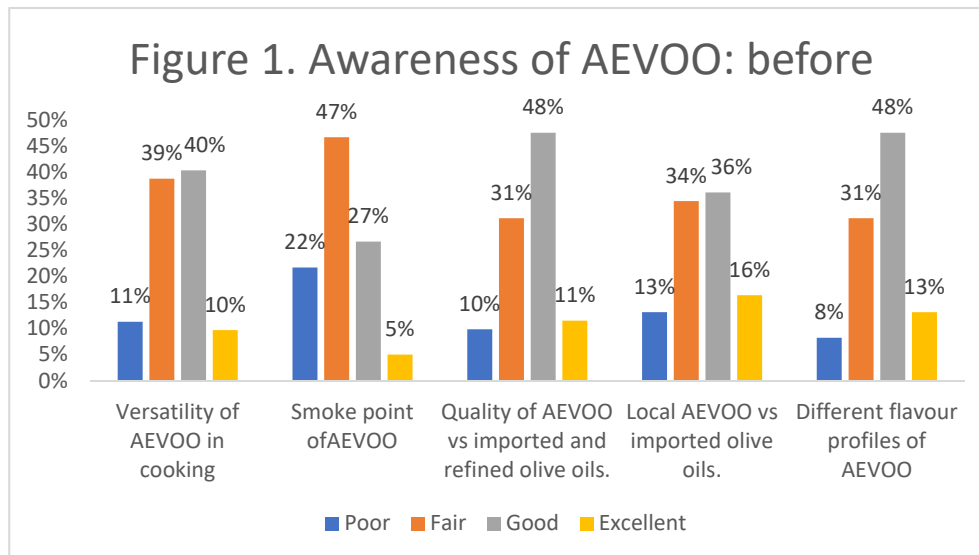
KEQ 1: Has the program achieved its intermediate outcome of increased knowledge of benefits and uses of AEVOO amongst trainee chefs engaged with the program?

Total of 62 students participated in the evaluation survey, out of which 52% spoke English as their first language. 58% of the participants grew up in a household that used EVOO regularly in meals/food. Evaluation findings show that there has been positive change in knowledge and confidence level of the trainee chefs. Change in the level of knowledge and confidence were identified as the intermediate outcomes in the program logic within the Monitoring and Evaluation plan.

Figure 1 and 2 showcase the level of awareness of AEVOO before and after watching the videos. The term "awareness" was utilized to demonstrate knowledge change. For each statement below, Figure 1 and 2 demonstrate there was a clear shift in students reporting their awareness from being "poor" or "fair" (average of 49%) to a majority being "good" or "excellent" (average of 92%):

- Versatility of AEVOO in cooking

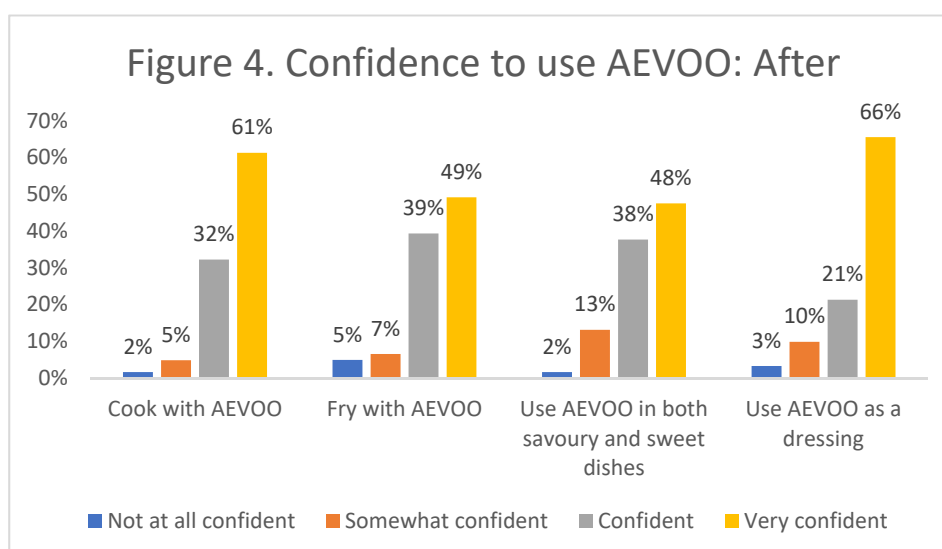
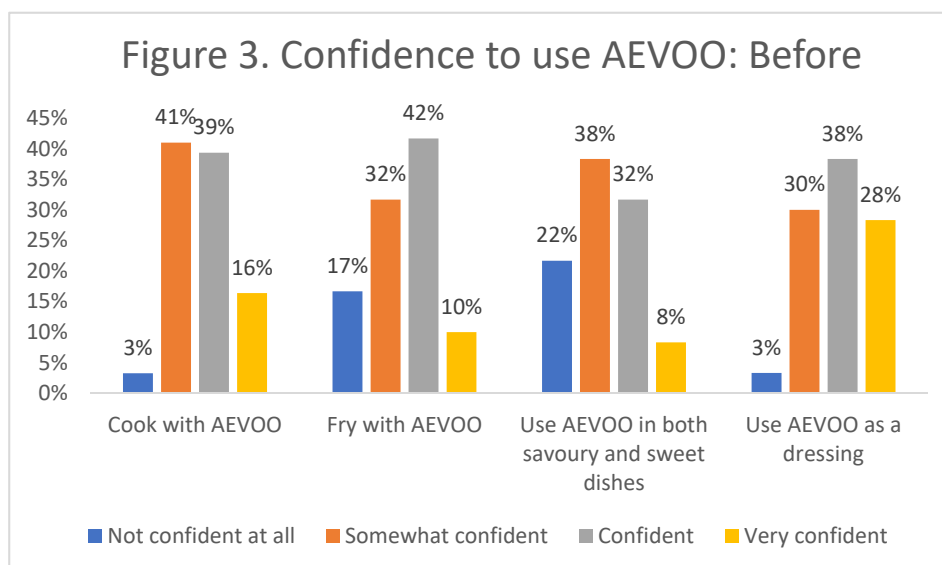
- Smoke point of AEVOO
- Quality of AEVOO vs imported and refined olive oils
- Local AEVOO vs imported olive oils
- Different flavour profiles of AEVOO



Figures 3 and 4 below showcase an improvement in trainee chef's confidence to use AEVOO by having an increased awareness of the benefits, attributes and uses of AEVOO.

For each statement below, Figure 3 and 4 demonstrate that there was a clear shift in students reporting their confidence to use AEVOO shifted from being "not confident at all" or "somewhat confident" (average of 46%) to a majority being "confident" or "very confident" (average of 89%):

- Cook with AEVOO
- Fry with AEVOO
- Use AEVOO in both savoury and sweet dishes
- Use AEVOO as a dressing



KEQ 2: Has the program resulted in a change of teacher capacity around the benefits of AEVOO?

Findings from the interviews with the teachers show that there was an impact in teacher's capacity around the benefits of AEVOO. Some of the teachers talked about their own misconceptions related to the use of EVOO. The following statement from one of the teachers demonstrates this point clearly.

"I've been guilty of that in the past as well. You know, if you spend a lot of money on EVOO then you want to be able to taste it, and therefore we put it in a dressing or marinade so we can taste it, rather than just fry something in it. So I've carried on that fallacy that has been around for years and years [not to cook with EVOO]"

(Teacher ID. no. 01)

The importance of the resources being for the teacher as well as the trainee chefs were also highlighted in the interviews. One teacher spoke of a text book that provides misinformation about EVOO, stating the author wrote *"the smoke point of EVOO is quite low, it was ~120 degrees. And he also uses it for salad dressings and not actually cooking"*. The videos however counteracted this misinformation and the teacher said *"... all the kids went away with new found knowledge that actually you can cook with EVOO"*.

(Teacher ID no. 01)

Another teacher spoke of their skepticism around deep frying with EVOO *“I’m not too sure about some of the recipes. I’m not sure about deep frying in the olive oil which a lot of the apprentices picked up on. Especially with the Asian chicken... it’s just not common practice”*. Contrary to this, the teacher went onto comment that the videos communicated the key messages around versatility, flavour, quality and freshness *“quite well”*, particularly saying *“even myself didn’t realise olive oil would be quite as versatile because we are always being taught that it can be carcinogenic when used as a cooking medium”*.

(Teacher ID no. 02)

Evaluation findings indicate that not only new and emerging chefs in food service but older chefs need to learn about how to use AEVOO in order to use it appropriately in practice.

KEQ 3: To what extent is the program able to contribute to the end-of-project outcome of a change in behaviour around use of AEVOO?

Another evaluation finding was related to the trainee chefs’ future workplace and their mentors’ attitude towards AEVOO impacting the use of EVOO by the trainee chefs. One teacher stated that *“It depends on the establishment they work at and how supportive their head chef or owner is in their development and learning and if they can see there’s a benefit to their business. You’re going to get the [apprentice chefs] that are working at a pub or a club where it’s probably not going to change anything.”*

(Teacher ID no. 01)

Teachers also mentioned that the likelihood of using AEVOO by the trainee may be minimal, as stated in the quote below:

“Honestly I don’t think it’s going to change much. They are probably a few years off actually getting into the process of ordering stuff. They might go back to their head chef and be like ‘oh I found out [AEVOO] is not as bad to cook with as I initially thought’ but coming from their apprentice, the Head Chef is more set in their ways.”

(Teacher ID no. 02)

Cost of the ingredients such as AEVOO is deemed to be the crucial determinant in the use of AEVOO in food service from the teachers’ perspective. Evaluation findings showed that the higher cost of the AEVOO and the limited influence that new or apprentice chefs could have in the menu design and ingredients used as the potential barriers in the use of AEVOO in practice.

Relevance

KEQ 4: Were the resources developed relevant to the curricula of commercial cookery courses?

Overall the teachers’ sentiment to the videos and factsheets were positive stating specifically they found the videos to be “informative”, “relevant” and “engaging”. How the trainee chefs engage with the material is really dependent on the teachers and their capacity to ensure the videos are showcased within class time and factsheets distributed. This was dictated by the University rules around the curriculum content delivery system and use of online platform aided the delivery of the resources.

Due to the videos being uploaded to Vimeo and easily downloadable or streamed online as well as the factsheets being easy to either read online or print in hard-copy, the teachers found it relatively easy to include the resources in their courses. One teacher stated about the process *“I don’t think the process was hard at all. It was fairly straightforward. There were all the facilities in that particular classroom too, so it was just a matter of putting [the videos] on.”*

(Teacher ID no. 02)

Another teacher said *“I went to my Dropbox... and just downloaded them. That was all simple. I watched them all first, to try to work out what was the best day for me to actually play it and if it works in with what we were doing. No problem downloading or actually getting the information.”*

(Teacher ID no. 01)

As the material is embedded within the curriculum of five TAFE colleges, this ensures that teachers will use the material beyond the lifespan of the project. Reinforcing this, one teacher stated *"[I would] definitely used them again. I've saved them to my server, got a little folder in there. And again this year when we do regional cuisine [the teachers] will be able to pull [the resources] out again"*.

(Teacher ID no. 01)

Process appropriateness

KEQ5: Is the program being developed in a way that will maximise Nutrition Australia's ability to meet the intermediate goals?

As part of the resource development process we engaged the Project Reference Group (of which we had a representative from William Angliss) to review the video storyboards and draft versions to ensure the content was appropriate for the trainee chefs. We also invited TAFE teachers to provide feedback on one of the video storyboards to ensure the content aligned with their curriculum.

When asked what made them decide to include the videos and factsheets in their curriculum, one teacher stated *"we were asked to provide feedback on the resources before we embedded them into our curriculum, which fit into the requirements of our training package"*.

(Teacher ID no. 03)

This was a key strength in the design of our material and project strategy to ensure relevance to the target audience as well as maximum engagement. The teacher went on to add the resources *"provided a value add to the units in which they are embedded... it also provides an added perspective from other industry professionals"*, highlighting how they supported their teaching.

There were no significant suggested changes to the videos and factsheets from the teachers however there was a consensus around supplementing the resources with some kind of practical component.

One teacher said *"If you're looking for ideas for future funding... I had a little folder from the Spanish Olive Oil trade commission with information on olive oil types, flavour profiles and where they came from. Then they tied that in with a competition."*

(Teacher ID no. 01)

Another stated *"I feel that actually having products would help... definitely a hands on approach I find works a lot better especially with chefs. Actually tasting the difference between the EVOOs would be good."*

(Teacher ID no. 02)

Efficiency

KEQ 6: Is the program being rolled out according to the project timeline?

There were some challenges with ensuring project implementation was done within the proposed timeframe and this was mostly due to the varying degrees of teacher capacity. Some teachers, who were engaged with the project from the project planning stages, were delayed in embedding and/or showcasing the resources due to their limited capacity or staff turnover. As they have a very high teaching load and often have to look after the administration component of admitting new students and providing inductions as well as teaching, their involvement in our project became a lower priority in their day-to-day workload. This however did not impact the success of the project. Instead, we learned that it is large time investment to engage with each individual TAFE college and alternative ways to ensure each TAFE has our resources should be investigated to ensure cost-effectiveness, time efficiency and reach is maximized.

Recommendations

A number of key learnings and recommendations have arisen from the delivery of the Olive Oil Food Service program. These have been outlined below.

Activities with trainee chefs

As a result of the teacher interviews, there was a consensus that a practical component to supplement the videos as factsheets would be useful for the trainee chefs as they are used to working with their hands. Suggestions included:

- Grove tours – Albury TAFE NSW already do this as part of one of their electives “Regional Cuisine”. However it may be of benefit to invest in organising for students to visit a local olive grove to help with their appreciation for local produce. A potential cost-effective method would be to offer virtual reality grove tours.
- Competitions – one teacher referenced the “Proud to be a chef” competition as a great way to mentor and engage students in a practical way. We recommend the industry investigate hosting a competition for students to create an innovative dish using AEVOO, with the winner being able to do a grove tour or be part of a Masterclass with an established chef.
- Tastings and pairings – offering tastings with information on how to pair different flavoured AEVOOs would be a valuable add-on to the project’s resources as per feedback from teachers and the Project Reference Group. This could be done by engaging with an AEVOO expert and producing a pre-recorded video of them demonstrating a tasting of different AEVOOs. This video could then be put together with a “taster packer” which included AEVOO, the video and teacher instructions on AEVOO and how to facilitate the tasting in class with their students. This would be a more cost-effective way to reach more TAFE colleges, rather than trying to send a representative to each TAFE to do an in-person tasting.

Partnership opportunities

- Resource providers – in light of our key learning that it is time intensive to engage with individual TAFE colleges to embed the resources within their curriculum. A cost-effective and time efficient alternative is to engage with resource providers (such as Australian Training Products) and in partnership embed the resources within their Certificate III in Commercial Cookery content, of which many TAFE colleges and Registered Training Organisation’s purchase the curriculum to teach at their institution.
- Restaurant and Catering Australia – we explored working with them to promote our resources for this project as they are a peak body in food service with a large member database. However there was a cost associated with any promotion or partnership which was outside our budget. It may be worthwhile considering investment in a future partnership.

Social media

The positive results for the social media campaign run as part of this project in October 2018, highlights the cost-effectiveness and return on investment in promoting the resources and Australian Everyday website through social media. We recommend that any future investment incorporates promotion via social media to trainee and established chefs and that some funds are allocated to shorten the videos, which are currently 7-9 minutes long, to around 10-15 seconds.

Other opportunities

As a result of the stakeholder interviews, some chef interviewees provided some ideas on how to increase awareness of AEVOO in the food service sector. These include:

- Marketing and promotion of AEVOO through food service distributors – to make AEVOO more prominent for chefs when ordering their ingredients through distributors
- Trade exhibitions (e.g. Foodservice Australia) – as chefs attend these to keep up to date, this may be a good avenue to increase the profile of AEVOO with established chefs
- Magazines (e.g. Gourmet Traveller and Epicure) – as some chefs stated this is where they learn about new products and food service industry trends

Refereed scientific publications

None to report

Intellectual property, commercialisation and confidentiality

No project IP, project outputs, commercialisation or confidentiality issues to report

Appendices

Report title	Attachment
Stakeholder interview report	Appendix 1
Food service insights report	Appendix 2
Literature review	Appendix 3
SWOT analysis	Appendix 4
Communications and engagement plan	Appendix 5
Monitoring and evaluation plan	Appendix 6
In the kitchen factsheet	Appendix 7
Selecting a high-quality EVOO factsheet	Appendix 8
The benefits of AEVOO factsheet	Appendix 9
FULLER social media campaign report	Appendix 10
Grower summary report	Appendix 11
Grower webinar	Appendix 12
Grower webinar slides	Appendix 13

APPENDIX 1

OL16004 Olive Oil Food Service Program

Stakeholder Interview Report

1. Executive Summary

Stakeholder interviews were conducted with the food service industry to gain insight into usage patterns and purchase and consumption drivers of Australian extra virgin olive oil (AEVOO). Nine interviews were completed with chefs from various sub-sectors of food service (including: fine dining restaurants; cafes; institutional retail and catering; and pubs). Our findings highlight that whilst most chefs do use and value AEVOO, perceiving it to be of high quality, the oil is used in small amounts and for specific culinary purposes. Use of AEVOO is limited to 'finishing' (i.e. drizzling over a cooked dish) and using cold in dressings, sauces and marinades. The perception that EVOO should not be used in cooking, including shallow and deep frying (i.e. heated to high temperatures) exists amongst chefs across the varying sub-sectors of the food service industry. Purchase and consumption drivers of AEVOO included: cost, taste, quality, access/availability of the oil and provenance (related to the increasing trend to promote local produce in food service). The research identified that there is significant opportunity to increase awareness about AEVOO in the food service industry, including education about quality, benefits, properties and culinary uses.

2. Introduction

This report outlines the findings from stakeholder interviews conducted as part of the Olive Oil in Food Service Program. The report summarises key themes from interviews with chefs (8 chefs, 1 'self-taught' cook) from various sub-sectors of the food service industry and provides insights into:

- current usage patterns of AEVOO;
- the purchase and consumption drivers of the food service sector relating to AEVOO;
- experience, attitudes and perceptions relating to use of AEVOO in food service

These insights will assist in identifying opportunities to increase the use of AEVOO in food service. The findings reported here meet objective 1 of the Olive Oil in Food Service Program: *'Gain a better insight of the current usage patterns, and the purchase and consumption drivers of the food service sector'*.

3. Background

The Olive Oil in Food Service Program, funded by Horticulture Innovation Australia (Hort Innovation), aims to increase awareness about the attributes, benefits, properties and culinary uses of AEVOO amongst trainee chefs. The project will target emerging chefs and student chefs within their learning environment, such as TAFE's and culinary schools.

Fresh extra virgin olive oil (EVOO) is regarded as one of the healthiest and best tasting oils to use in cooking and food preparation and the Australian olive industry produces some of the highest quality oils in the world¹. However, the industry has identified that there is a lack of knowledge and a number of misconceptions about olive oil in the Australian market – even in areas where

enhanced knowledge of oils might be expected, such as the food service sector. Some of the lack of knowledge and misconceptions surround the product itself (e.g. how it is produced and its varying taste profiles) and the ways EVOO can be used in cooking and food preparation¹.

As part of the research component of the Olive Oil in Food Service Program we further explore the knowledge, understanding, attitudes and cooking practices of established chefs in relation to olive oil through stakeholder interviews with chefs

4. Methodology

Interviews

- In-depth interviews were conducted over a three-month period (August – November 2017) with established chefs working in various sub-sectors of the food service industry (See Table 1)
- A total of nine interviews were conducted.
- Seven interviews were conducted face-to-face and two by telephone
- We used a mixture of purposive sampling (using existing food service contacts) and random sampling
- All those invited to partake in an interview, agreed and completed the interview.
- Eight interviewees were trained chefs, having completed a qualification (e.g. Certificate III in Commercial Cookery); one interviewee was a 'self-taught' cook.
- Two food service distributor representatives (both from large food service distribution companies) were contacted for an interview on several occasions (with messages left) however no response was received from either representative.

Table 1: Summary of food service stakeholder interviews

Food service industry sub-sector	Interviewee position/role
Pub/club (2)*	Executive chef
Restaurant (fine dining) (3)	Head chef (2) Executive chef and restaurant owner Chef
Culinary training school/fine dining experience	Cuisine lecturer/executive chef
Large institutional catering	Quality Assurance Manager/Ex-chef
Café (2)	Chef Cook (no formal qualification)

*(x) = number of stakeholders interviewed from this sector if more than 1

- Informed consent was obtained orally with agreement regarding confidentiality
- An interview protocol and interview guide (consisting of up to 25 questions) were developed (see Appendix 1)
- Interviews were recorded and transcribed

Qualitative thematic analysis

- Transcripts were reviewed and themes were identified, 'coded' and collated into a table format for each respondent along with relevant quotes and extracts from the transcripts.
- Codes were generated based on:
 - patterns/themes

- important points/features based on the research objectives
- repetitive sentences, words, responses
- surprise/new responses
- Codes were 'grouped' into broad themes (based on the research questions)

5. Findings/Results

Types of oils used in food service

Interview participants (chefs*) were asked about the types of oils they use/have used in their food service establishment(s). The most common responses were:

- Vegetable oil
- Vegetable oil blend
- Canola oil
- Extra virgin olive oil (EVOO)

The most common response for the **top three oils** used (in order of volume) was canola oil, vegetable oil blend and extra virgin olive oil.

Culinary uses of oils in foodservice

The following themes emerged with regards to food preparation and cooking methods that oils are generally used for in food service:

- Vegetable oil blend or canola oil are used for deep frying due to being cost effective (for large volumes used), flavour neutral and ability to be heated to high temperature.
- Canola oil and vegetable oil, or vegetable oil blend used mostly when pan-frying and grilling (e.g. steaks) due to being both cost effective and flavour neutral.
- EVOO used for dressings, vinaigrettes, marinades, sauces, to 'finish' a dish once cooked (for 'flavour' and 'shine'), serving with bread on the table to dip.
- EVOO is sometimes used in restaurants (middle or high-end dining) for pan-frying or shallow-frying only when the flavour of the oil is suited to the dish being cooked (e.g. a Mediterranean-type dish, such as pasta or risotto).

"...(it is) better to splash the extra virgin olive oil on afterwards (after the dish is cooked) and get that extra virgin taste" (executive chef, fine dining).

"..(I use) EVOO to finish a dish. For example, I make sardines, like pan fried sardines, but at the end I add a lot of olive oil because it's a dish that needs that flavour.....I don't cook it at all" (head chef, 'gastropub').

Extra virgin olive oil in food service

Participants were asked about their usage of EVOO and the types of cooking purposes and recipes EVOO is used for.

The following themes transpired in relation to cooking with EVOO:

* The term 'chefs' and 'interview participants' are both used (interchangeably) throughout the results to describe the interviewees.

- EVOO is mostly used cold either to 'finish' a dish (i.e. drizzle or 'splash' over the cooked dish) or in marinading, sauces, dressings, vinaigrettes, or served on the table with bread
- EVOO is sometimes used in pan-frying only if the flavour of EVOO is suited to the cuisine or type of dish – e.g. it is European or Mediterranean dish such as pasta or risotto
- EVOO would never be used in Asian cuisine/Asian recipes

The themes that arose regarding the key factors that influence the culinary uses of EVOO were:

(i) Flavour

- The flavour/taste of EVOO was described by chefs as 'strong', 'robust', 'pungent', 'fruity' and 'grassy'.
- The flavour is suited only to specific dishes, recipes or cuisine types such as European and Mediterranean cuisine where chefs want the flavour of the EVOO to be a characteristic of the dish.
- The flavour is too 'strong' for many other dishes/menu options/foods (i.e. fish, steak were mentioned).
- Chefs noted the varying flavour profiles of EVOO and that each oil has different flavour characteristics (EVOO was compared to wine); each chef has their own flavour preference when it comes to EVOO (e.g. the terms 'grassy', 'fruity', 'herb', 'peppery' and 'robust' were used).

"...(wouldn't use) really strong extra virgin olive oil taste through something that's supposed to be delicate. So for example you do garlic aioli. An extra virgin olive oil would taste too much of the oil and not enough of the garlic" (Executive chef, fine dining).

"I don't want that (EVOO) flavour in food" (head chef, café).

"You don't put good olive oil into a dressing when you want to taste the dressing" (Executive chef, fine dining).

(ii) Cost

- Cost is a factor that influences the use of EVOO in the kitchen.
- Participants commonly reported that EVOO is more expensive than other oils.
- 'You pay for what you get' when it comes to EVOO – chefs from the fine dining and 'gastropubs' reported they will pay for a high quality EVOO to ensure the quality of their menu.
- A high quality EVOO would only be used in small amounts and not 'heated' or used in cooking

(iii) Properties and attributes of the oil

- A common reason given by chefs as to why they wouldn't cook or heat EVOO was because it cannot be heated to high temperatures and that it 'breaks down' or 'gets destroyed very quickly' when heated.
- Chefs also reported that they would be wasting the special flavour characteristics of the oil if EVOO if heated.

"the whole point of extra virgin olive oil is that it is the first pressing.....so if you were going to heat it up, you're sort of wasting the special characteristics and everything of the oil" (executive chef, fine dining).

"....after a certain temperature, about 200 degrees or so, it breaks down (the extra virgin olive oil)....and then it no longer becomes extra virgin olive oil" (executive chef, fine dining).

Australian extra virgin olive oil in food service

Participants were asked about their knowledge and use of AEVOO and the types of cooking purposes and recipes they used it for.

The following themes regarding perceptions about AEVOO in the food service industry transpired:

- Australia has high quality EVOO ('as good as anywhere in the world').
- Many AEVOO producers have their own range of flavour varieties such as: 'mild', 'robust' and 'flavour-infused (e.g. lemon-infused)'.
- Overall, there is a large flavour diversity of AEVOO due to the different growing regions (e.g. flavours such as 'fruit', 'spice', 'nut characteristics' were used by chefs to describe EVOO flavour profiles).
- AEVOO is fresh (some participants said 'fresher' than imported) and described by participants as being 'first-pressed' and 'in season'.
- Comes in convenient packaging with 'pouring spout'.
- AEVOO can be showcased on the menu and highlighted to customers as a local product (important for fine dining restaurants, 'gastropubs' and regional restaurants).

"I think the olive oil that we get here (in Australia) is as good as anywhere in the world.....and I've eaten all over the world" (Executive chef, fine dining).

".....as far as flavour profiling and freshness of the product, especially (some Australian brands) they promote their first pressed and their new season olive oil" (Executive chef, pub).

"....definitely from a flavour perspective, it only makes sense that Australian oils should have a fresher, better flavour profile not having to travel as far" (Executive chef, pub).

".... I think we have a good product (Australian EVOO)...it's just the price is out of our league" (Executive chef, Institutional catering).

Barriers and drivers to using Australian extra virgin olive oil

Participants were asked about the **barriers** to using an Australian EVOO. The following common perceived barriers to using AEVOO were reported:

(i) Cost

- Cost is important in food service so would only use an Australian EVOO in small amounts (even in fine dining restaurants where cost was a priority). AEVOO not used in large institutional retail food service or typical pub due to cost

(ii) Access/Availability

- Dry goods/oil distributors often only have a chosen few international oils (e.g. Spanish, Greek, and European) that come in large volumes at cheaper prices. These are often promoted over the Australian products.
- Chefs reported they often couldn't get a bulk supply of AEVOO from their distributor (i.e. 2-3L are the largest offered) and go directly to the grower/producer to get a bulk supply of their preferred oil (i.e. 10-15L)

Participants were asked specifically about the **drivers** to using an AEVOO. There were two commonly observed drivers to using more AEVOO:

(i) Product education and marketing:

- Education provided to chefs regarding AEVOO culinary use (taste, quality, cooking method)
- Tours to olive growers for education about oil production, properties and attributes
- Chefs are open-minded and willing to use AVOO (especially if they see other chefs using it).
- Distributors could better promote and market AEVOO
- The olive industry and growers/producers could provide education/marketing about AEVOO.

(ii) Showcasing local product:

- Customers like to see 'local' products showcased on the menu (especially noted for fine dining restaurants). As such, if a local AEVOO is used this can be featured, giving the menu a story which customers like (e.g. a local food 'story' about the grower/region)

In relation to barriers to using AEVOO:

"Cost is definitely a factor..... (and) access. Dry good suppliers will have chosen a few mainly Spanish or Greek or European products that come in large quantities at cheaper prices. So they have a preference for moving these on and then the Australian products are secondary in line for them" (Executive chef, pub).

"..a lot of chefs go through certain buyers and they might only have access to certain kinds of EVOO. If they don't have a brand that chefs really like they might not get it for them.....so availability is another factor but basically it's going to be price" (Chef, fine dining/catering background).

Customer demand for oils in food service

Participants were asked about whether customers enquire in relation to oils used in food service. The common response was that there was no customer demand for any particular oils unless in relation to allergies/dietary intolerances (very occasionally)

Chef's knowledge of health benefits of EVOO

When asked about their knowledge regarding the health benefits of EVOO the common responses were:

- Not aware of health benefits but know that it is 'healthy'.
- EVOO is good for health because of the type of fats – that is has 'good' fats.

Chef's knowledge of storage of EVOO

Despite participants not being directly asked about their knowledge of how to store oils they commented on the:

- Importance of dark packaging for EVOO and storing in a cool, dark place.
- Expiry date as being important in relation to EVOO.

Food service trends in relation to fats and oils

The key theme that emerged when participants were asked about current trends relating to fats and oils was the increasing availability of flavour 'infused' oils (e.g. lemon-infused, garlic-infused EVOO).

Marketing and promotional opportunities for Australian EVOO to food service

Whilst there was no direct question regarding promotional opportunities for AEVOO for the food service industry a theme that arose from the interviews was the potential need for this to occur. Interview participants raised the following ideas in relation to increasing awareness of AEVOO in the food service sector:

- Taste education for chefs to ensure they understand the flavour of a good quality EVOO.
- Marketing and promotion of AEVOO through food service distributors
- Information and tastings at food service trade exhibitions (e.g. Foodservice Australia annual event)

Food service industry engagement

Interview participants were asked: 'where do you find out about new products, product information and food trends?' The common responses are outlined in Table 2.

Table 2: Where do chefs/cooks learn about new products and food service industry trends?

Sources of food product information and food service trends
Social media (Instagram, Facebook)
Eating at other restaurants
Magazine - Gourmet Traveller
Magazine - Epicure in The Age
Celebrity Chefs (endorsing products, demonstrating recipes)
Trade expos with tastings (e.g. 'Foodservice Australia' a yearly food service exhibition with food and food service equipment companies)
Magazine - food service

In relation to new products and food trends:

"...you go (out) eating at different restaurants.... I think that's the first thing. Or Instagram....social media is huge. You see a dish and say ah; I wanna go check this out" (Head chef, 'gastropub')

6. Summary

Our findings highlight important insights regarding the use of EVOO (including AEVOO) in food service and the factors that influence usage. In addition, we gained an understanding of attitudes, perceptions and experiences of chefs in relation to AEVOO.

Whilst EVOO is used by food service establishments, its use is limited to: adding to marinades, sauces, dressings and vinaigrettes; serving fresh on the table with bread; and to 'drizzle' on a cooked dish. There is a perception amongst chefs that the properties and attributes of EVOO limit it to these specific uses, including the perception that cooking EVOO would cause it to 'break

down' and destroy the special characteristics of the oil, including the flavour.

Our research provides important insights into the purchase and consumption drivers of the food service sector. These are:

Cost

Cost of AEVOO is a barrier for all food service sub-sectors, as it is reportedly more expensive than an imported EVOO and other oils. Despite this, most of the chefs interviewed do use an AEVOO in their kitchen, only in small amounts and for specific purposes (as described in the section on *usage patterns of EVOO and AEVOO* above). Pubs and large institutional retail food service did not use an AEVOO due to cost.

Taste/Flavour

Chefs recognised that there is flavour diversity when it comes to AEVOO and a flavour range available including 'mild', 'robust' and 'flavour-infused'. This is a driver to purchasing AEVOO. However, the flavour of AEVOO is also a barrier to its use in the kitchen, limiting it dishes and cuisines where the taste is required and is a characteristic of the cuisine, such as Mediterranean and 'European'.

Access/Availability

For some food service businesses accessing an AEVOO is a purchase barrier. Distributors often promote an imported EVOO and sell it in large volumes and at a cheaper price than AEVOO.

Some chefs reported that they were able to overcome this by purchasing AEVOO directly from a producer/grower they liked and were able to purchase the oil in large volumes. There may be an opportunity for distributors to stock larger volumes of AEVOO and promote this to the food service industry.

Quality

Our research reveals that AEVOO quality is a purchase driver, the food service industry perceiving AEVOO to be of high quality that either equals, or is superior to that of international EVOO.

Provenance/local factor

Showcasing an Australian, 'local' extra virgin olive oil on the menu (especially in fine-dining restaurants and 'gastropubs') was seen as an advantage and a key driver for the food service industry purchasing an AEVOO.

Overall, there is a significant opportunity to promote and increase the awareness about AEVOO to the food service sector. Chefs were open to learning more about AEVOO through promotions such as product tastings as well as education through their distributor.

Key ways to engage with chefs include: social media, trade exhibitions, food service magazines and publications such as The Age, Epicure.

The insights gleaned from our research will be utilised to inform the development an AEVOO education program for trainee chefs.

7. Limitations

There are a number of research limitations that need to be recognised when interpreting the project findings. These include:

- Small sample size of interviewees (nine)
- A number of the interviewees were recommended through our existing contacts at Nutrition Australia Vic and may have a prior understanding about the benefits of EVOO and AEVOO which could have biased these results.

8. References

- 1) Horticulture Innovation Australia, 2017. Request for Proposal – OL16004 Understanding and educating the food service market for olive oil.

Appendix 1

OL16004 Olive Oil Food Service Program

Stakeholder Interview Guide

Interview Guide

Project background

- Introduce self and role at Nutrition Australia
- We have been funded by Horticulture Innovation Australia to deliver a 2 year project called: 'The Olive Oil Food Service Program'.
- The project aims to educate student chefs all about Australian extra virgin olive oil, including the attributes, properties, benefits and uses of the oil.
- To achieve this we will be developing educational materials (including videos and other resources) for use in culinary training courses (e.g. Certificate III in Commercial Cookery)
- To help us to develop educational materials about Australian extra virgin olive oil we need to understand more about the barriers and drivers in the foodservice industry relating to buying, using and consuming this product
- I am interviewing you today to help us to understand more about:
 - whether you use olive oil, extra virgin olive oil and even Australian extra virgin olive oil, how you currently use it (e.g. what types of recipes)
 - What you know about Australian extra virgin olive oil
 - What stops you from using Australian extra virgin olive oil
 - What would drive you to use more Australian EVOO
- I have a series of questions to ask which should take around 30 – 40 minutes of your time
- I will be writing and is it okay if I record this interview (using iPhone)
- The information you provide today is only to be used for this project and will not be identified to you (i.e. you will not be identified to each response). The information will be used to broadly describe how Australian EVOO is used by the food service industry

Table 1: Interview questions

Interview question	Response/comments
<p>1. What types of oil do you use most of in your foodservice? (e.g. canola, vegetable blend, palm oil, coconut oil, animal fat, high oleic sunflower, high oleic canola.....)</p> <p>2. For what cooking purposes do you mostly use fats/oils overall? (e.g. deep frying, shallow frying, within dishes, dressings)</p> <p>3. Out of those oils which 3 do you use most in terms of volume?</p> <p>4. What types of cooking purposes/recipes would you use these oils?</p> <p>5. What are the reasons for using these oils as your top 3 preferences?</p>	
<p>6. If they say they use olive oil above, clarify what type of olive oil they use.</p> <p>Do you use extra virgin olive oil?</p> <p>Do you use Australian EVOO?</p>	
<p>7. What cooking purposes do you use Australian EVOO?</p> <p>a) If so, where do you purchase Australian extra virgin olive oil? Can you purchase this oil in bulk? From where?</p> <p>b) If not, what are the barriers/what stops you from using Australian EVOO?</p>	
<p>8. How does the cost of AEVOO compare to other oils used in your kitchen?</p> <p>9. If it was less expensive would it be used more?</p>	

<p>10. What do you know about the health benefits of extra virgin olive oil?</p> <p>11. Are you aware of any other benefits using <u>Australian</u> EVOO?</p> <p>12. Do you think Australian EVOO and EVOO are more superior oils compared to other varieties?</p> <p>13. Are there certain cuisine types for which you would use Australian EVOO or even EVOO more often?</p> <p>14. Are there cuisine types where you would not use EVOO?</p> <p>15. Do you purchase and use other extra virgin olive oils (i.e. non-Australian) or just olive oil? E.g. international brands</p> <p>a) If so, for what cooking purposes/recipes?</p> <p>b) If not, what are the barriers/what stops you from using extra virgin olive oil/olive oil?</p> <p>16. Have you tried many Australian extra virgin olive oil brands? How would you rate the taste of Australian extra virgin olive oil compared with other olive oils?</p> <p>17. Do your customers enquire about types of oils used at your foodservice business (e.g. café/restaurant)?</p> <p>18. Do you believe there is customer demand for any particular oils? Or olive oil in general? Or extra virgin olive oil?</p> <p>19. Are you aware of any particular current trends in the foodservice industry relating to fats and oils? For example, a trend for more coconut oil. Are there any trends you are aware of that are increasing the use of any particular oil?</p> <p>20. Did you undertake culinary training to become a chef? For example, Certificate III in Commercial Cookery?</p> <p>21. Are you aware of any education through cooking schools or an industry association about using Australian extra virgin olive oil or olive oil use in general?</p> <p>22. What would drive you to use more Australian EVOO in your foodservice business?</p> <p>23. What information would your manager / board need to consider purchasing EVOO?</p> <p>24. Where do you find out about new products / information?</p> <p>25. Where do you find out about food trends?</p>	
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APPENDIX 2

OL16004 Olive Oil Food Service Program

Food Service Industry Insights Report

1. Executive summary

Desktop research was utilised to gain a greater understanding about food service sector trends and competitor products to Australian extra virgin olive oil (AEVOO). Our research of the publicly available (free-to-access) data revealed a number of food service sector trends, domestic and global, of potential relevance to the Australian olive industry. To gain insight into competitor products to AEVOO we reviewed the product lists from large food service distribution companies to determine: (a) if AEVOO is available to the food service industry through large distributors and (b) volumes of AEVOO available from distributors vs. volumes of other oils. Whilst AEVOO is available for purchase from the large food service distributors, the volumes available are typically small (2 and 4 Litres) when compared with volumes available for canola oil, blended vegetable oils, canola and virgin olive oil blend, cottonseed oil and sunflower oil (all available in 15 and 20 Litre volumes). This may indicate an increased demand by the food service industry for canola oil, blended vegetable oils, cottonseed oil and sunflower oil which suggests that these are competitor products to AEVOO. International extra virgin olive oil is available in the same volumes as AEVOO however; our food service stakeholder interviews suggest international extra virgin olive oil is a competitor product to AEVOO.

1. Introduction

This report is a component of the *OL16004 Olive Oil in Food Service Program* and outlines our insights into:

1. Food service market trends (domestic and international)
2. Competitor products to Australian extra virgin olive oil

These insights will assist in identifying potential opportunities to increase the use of Australian extra virgin olive oil in foodservice.

2. Background

Horticulture Innovation Australia's (Hort Innovation) Olive Strategic Investment Plan (2017-2012)¹ articulates the opportunity to *'provide education to the food service industry about the importance of 'fresh' Australian EVOO and its culinary attributes*. A key strategy, given high priority in this plan is: *'education of customers, especially chefs and the food-service industry, about the health benefits and how to cook with Australian EVOO'*¹. The Olive Oil Food Service Program will deliver on this strategy. The project, to be delivered over two years, aims to develop, implement and evaluate an education program for trainee chefs to increase their knowledge about AEVOO.

Given that the foodservice sector is the priority stakeholder for this project, it is essential we have a broad understanding about the sector in Australia, including overall market trends (relevant to AEVOO) and competitor products to AEVOO.

3. Methodology

Food service market trends

- Desktop research was utilised to find food service sector trends. The terms ‘foodservice sector trends’; ‘foodservice market trends’; ‘foodservice industry trends’ were entered into Google.
- Findings on trend predictions were collated and documented.
- Our searches indicated that food service sector trend data can be purchased (including data specific to oils in the food service industry) from Australian and International market intelligence companies such as Euromonitor, Mintel, IBISWorld and Food Industry Foresight.
- We sought advice from our Project Reference Group regarding purchasing trend data and direction was given to not purchase this (expensive) data for the purposes of this project.
- We contacted Restaurant and Catering Australia regarding food service sector trends, but did not receive a response

Competitor products to AEVOO

- Data on the usage of fats and oils in foodservice (i.e. industry sales data) was not available for this project (as above, can only be purchased) to provide accurate insights on competitor products to AEVOO in the food service industry
- In the absence of this data, we collected information on the competitor products via:
 - Stakeholder interviews with chefs from different sub-sectors of the foodservice industry (refer to *OL16004 Stakeholder Interview Report*)
 - Reviewing product lists of large distributors to the food service industry, including the types of oils available and the volumes available for purchase
- Data on ‘food service distributors’ was collected using searches in Google
- Data on oil products available from each distributor was collected using the product lists available on each distributor website. If a product list was unavailable on the website the distribution company was not included in the comparison

4. Findings

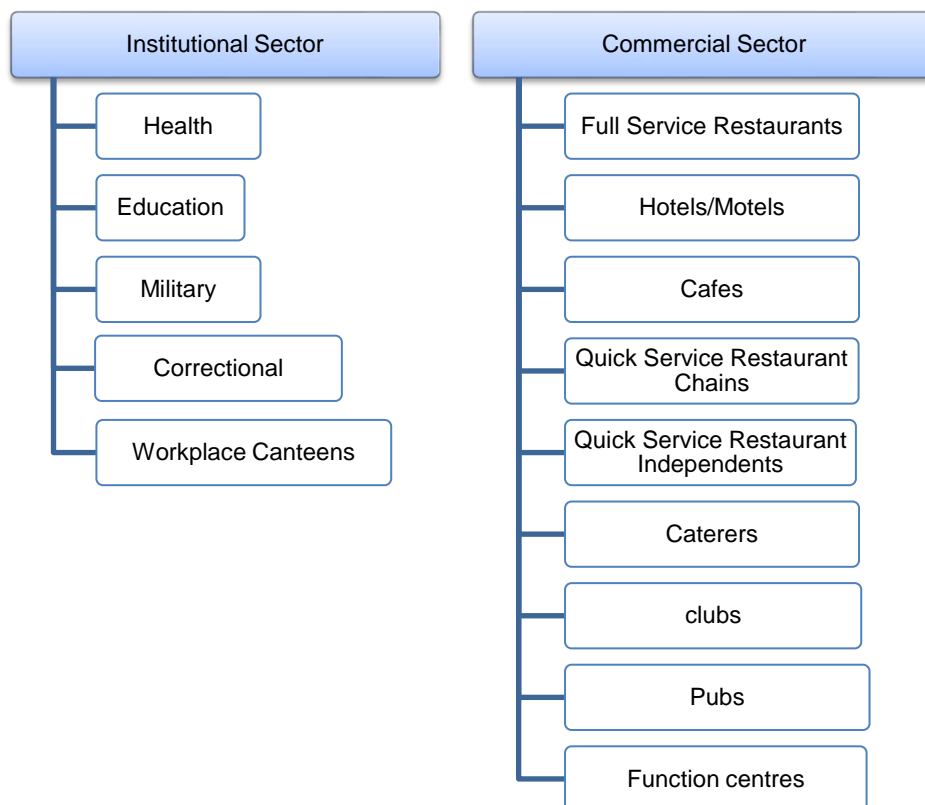
Foodservice trends: domestic and international

The Australian Foodservice Market

The foodservice industry defines those businesses, institutions, and companies responsible for any meal prepared outside the home. This includes restaurants, school and hospital cafeterias, catering operations, and many other formats (see **Figure 2** below).

The following table highlights the foodservice market channels in Australia:

Figure 2: Foodservice Market Channels Australia²



There are 52,521 cafes, restaurants, catering and takeaway businesses in Australia and 93% of these are small businesses³. Restaurant and Catering Australia is the national industry association representing the interests of restaurants, cafes and catering businesses across Australia.

Market Trends

Desktop research was undertaken to identify broad food trends, domestic and international, relevant to food service.

The following table highlights broad food trends identified by our desktop, internet research.

Table 1: Domestic and international food service trends

Trend	Details	Source
Increased demand for healthier options, better quality and 'natural' <i>(domestic)</i>	<ul style="list-style-type: none"> Customers are demanding more options when eating out, including healthier options, better quality food and foods that comply with specific dietary requirements. This has encouraged foodservice operators to invest in menu innovation and to extend the range of food options available to consumers⁴ 	Euromonitor – Consumer Foodservice in Australia insights ⁴
Independent food service resonates with Australian customers <i>(domestic)</i>	<ul style="list-style-type: none"> Global companies (e.g. McDonald's Corp, Domino's Pizza Inc) lead foodservice in Australia (in 2016), comprising the top five largest companies in terms of value share. Although chain foodservice operators grew faster than independent ones in 2016, independent foodservice retained a large value share within foodservice in Australia Independent foodservice operators resonate with Australian consumers who prefer a more unique and exclusive offering and experience when eating out (compared with other developed foodservice markets globally). 	Euromonitor – Consumer Foodservice in Australia insights ⁴
Sustainability <i>(international)</i>	<ul style="list-style-type: none"> Sustainability is one of the biggest international foodservice trends. This trend is driven by consumers and includes greater focus on water and energy conservation; waste management and food sourcing. 	Fryett Consulting Group, Trends Affecting the Food Service Industry ⁵
Specific dietary requirements <i>(international)</i>	<ul style="list-style-type: none"> Meat, dairy and gluten alternatives will appeal more to the average consumer. 	Mintel Research Group ⁶
'Beautiful food' <i>(international)</i>	<ul style="list-style-type: none"> Increased focus on beautiful and modern food styling which aligns with the increasing use of social media and food. The visual presentation of food is increasingly important and is now just as important as taste. 	Mintel Research Group ⁶
'Fat is our friend' <i>(international)</i>	<ul style="list-style-type: none"> The 'fear' surrounding fat will lessen with a better awareness of the benefits of some types of 'good' fat. 	Mintel Research Group ⁶

Competitor products

Food service distributors

Food service distributors are companies that provide food and non-food products to restaurants, cafeterias, industrial caterers, hospitals and nursing homes. Using desktop research, we identified some of the large food service distributors that supply oils to the food service industry. These companies included:

- PFD Foodservice
- Bidvest (note: products unavailable)
- Peerless Foodservice
- Complete Food Services (note: products unavailable)
- Bruno Fine Foods
- Hudson Pacific Food Service

Food service industry distributors list fats and oils under the following categories:

1. Frying oils – liquids
2. Frying oils – solids
3. Culinary and general purpose oils
4. Catering spreads

Competitor products to AEVOO fall into the categories of ‘liquid frying oils’ and ‘culinary and general purpose oils’. We have not considered ‘frying oils – solids’ or ‘catering spreads’ as competitor products to AEVOO given they are used for vastly different culinary purposes (i.e. deep frying and baking/spreading, respectively) to what EVOO is typically used for in food service (i.e. dressings, marinades, shallow-frying). Table 2 (below) shows the oils stocked by food service distributors under each category (excluding catering spreads).

Table 2: Fats and oils used in food service

Frying oils – liquids	Culinary/general purpose oils
Cottonseed oil	Canola oil
High-oleic sunflower oil	Blended oil (canola and virgin olive oil)
Sunflower oil	High-oleic sunflower oil
Canola oil	Extra virgin olive oil
High-oleic canola oil	Coconut oil
Vegan-flavoured peanut oil	Soybean oil
Vegetable oil blends	Rice bran oil
	Nut oils (specialty)
	Truffle oil (specialty)
	Avocado oil

Liquid and ‘culinary/general’ purpose oils available from distributors

To understand AEVOO competitor products, product lists were reviewed from four distributors (PFD Food Service, Peerless Food Service, Bruno Fine Foods and Hudson Pacific Food Service) to identify the ‘frying oils – liquids’ and ‘culinary and general purpose oils’ and the volumes of these oils available to order. It has been assumed that where large volumes (i.e. 20L) are available to purchase that there is demand for the volume size by the food service industry and is therefore

used in large volumes. Coconut oil is reported to be competitor oil to AEVOO; however, none of the four distributors we reviewed supplied coconut oil. This may indicate that coconut oil is not a competitor product in the food service setting.

Table 4: Liquid frying oils and ‘culinary/general purpose oils’ available from food service distributors

Oil type	Volume(s) available
Cottonseed oil	15L, 20L
Vegetable oil - high oleic sunflower oil	20L
Peanut flavoured vegetable oil	20L
Vegetable oil blends	20L
Canola oil	15L, 20L
High oleic canola oil	20L
Canola and virgin olive oil blend	20L
Canola oil	2L, 15L, 20L
Vegetable oil - high oleic sunflower oil	20L
Rice bran oil	20L
White truffle oil	250mL
Pure sesame oil	2L
Peanut oil	1.8L
Blended vegetable oil	4L, 15L, 20L
Grapeseed oil	5L
Canola oil sprays	450gm
Extra virgin olive oil (imported/international brand)	250ml, 500ml, 2L, 4L
Australian extra virgin olive oil	250mL, 500mL, 2L, 4L, 5L (one distributor has 20L available)
Pure olive oil	4L
Pomace olive oil	4L

5. References

- 1) Horticulture Innovation Australia, 2016. Olive Strategic Investment Plan 2017-2021.
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APPENDIX 3

OL16004 Olive Oil Food Service Program

Literature review

Properties, attributes and benefits of Australian Extra Virgin Olive Oil

1. Executive Summary

This review collates the evidence on the benefits, properties and attributes of Australian extra virgin olive oil (AEVOO) from published literature over the past 17 years (2000-2017).

The health benefits of extra virgin olive oil (EVOO) are well documented and are mainly due to its high concentration of phenolic compounds and antioxidants and its fatty acid profile. Regular consumption of EVOO has been associated with decreased risk of heart disease, type 2 diabetes and cancer. In relation to culinary benefits, the high monounsaturated and low polyunsaturated fatty acid concentrations found in EVOO are beneficial for the oxidative stability of the oil, giving it a relatively long 'deep frying shelf life' when compared with other oils for repeated frying.

There is some evidence to suggest that AEVOO, purchased and consumed in Australia, is of higher quality when compared with international varieties. There are a number of reasons for this: including efficient and innovative production methods; high quality standards and that local, Australian produced EVOO can reach Australian consumers more quickly. Australia also has a great variety of EVOO flavour profiles due to the many growing regions, climates and soil types available.

This review will inform the development of educational materials targeted to the food service industry to clear up current misconceptions in relation to the quality and freshness of AEVOO and suitability for use in a variety of cooking methods.

2. Introduction

This report reviews the literature on the attributes, properties and benefits of AEVOO. The report forms part of the research component of the Olive Oil Food Service Program, a two-year project (May 2017 – May 2019) funded by Horticulture Innovation Australia Limited that aims to educate trainee chefs about AEVOO.

The collected evidence will be used to inform key messages for the Nutrition Australia Vic AEVOO education program for trainee chefs.

3. Background

Fresh EVOO is the highest grade of olive oil and is the natural juice that comes from the olive fruit¹. It is regarded as one of the healthiest and best tasting oils to use in cooking and food preparation². Around 3 million tonnes of olive oil is produced globally each year with the largest producers being Spain (1.1 million tonnes per annum), Italy (623,000 tonnes per annum) and Greece (261,000 tonnes per annum)³. In Australia, olive production has expanded rapidly over the last two decades and now

produces approximately 20,000 tonnes of olive oil annually (compared with 2,500 tonnes in 2004)³. The Australian olive industry comprises approximately 900 growers with the vast majority of growers considered boutique (operating on a small scale). The majority of production is from a single large producer in Victoria³. The Australian olive industry produces some of the highest quality olive oil in the world due to innovative and efficient agriculture and production techniques and a quality-driven industry³.

The health benefits of EVOO are well documented in the literature, particularly as an important component of a Mediterranean diet where EVOO is the main source of fat. It is now widely known to be associated with reduced risk of chronic disease, including cardiovascular disease and cancer¹.

Despite the known health benefits and freshness of AEVOO, there is reportedly a lack of knowledge and a number of misconceptions about EVOO in the Australian market, even in areas where enhanced knowledge is expected, such as the food service sector². Some of the misconceptions surround the properties and benefits (for both health and cooking), and attributes (i.e. taste profiles) of the oil and this has resulted in a misunderstanding of the oil's use and suitability in cooking and food preparation².

This literature review aims to summarise the evidence on the benefits of EVOO (including the properties of the oil associated with these benefits) and specific attributes and properties of AEVOO.

4. Methodology

- We included literature published in the past seventeen years (2000-2017)
- We included reviews or original research, including meta-analyses, randomized controlled trials, review articles and grey literature, including formal reports from relevant associations such as the Australian Olive Association.
- Search terms included: 'extra virgin olive oil' and 'Australian extra virgin olive oil' combined with terms describing individual attributes and properties such as: 'phenolic content'; 'Australian olive cultivars'; 'soil composition', 'cooking attributes'; 'quality'; 'smoke point', 'cooking stability', 'cooking versatility', 'taste'; 'environmental factors'; 'climate'.

5. Findings

Health benefits of EVOO

EVOO has been investigated extensively in the past few decades due to its biological ability to provide health benefits in a wide range of therapeutic and culinary uses⁴. Many chronic diseases are associated with increased oxidative stress resulting from either an over production of free radicals or a weakened antioxidant defense system⁵. The potent antioxidant activity in food sources rich in polyphenols (such as EVOO) have shown to limit oxidative stress associated with aging and diseases^{5, 6}. This section of the literature review will discuss the health benefits and attributes of EVOO as well as the specific properties of AEVOO that allow its diverse therapeutic and culinary uses.

Health benefits associated with phenolic and antioxidant content

The phenolic content and presence of antioxidants are believed to be responsible for EVOO's biological activity and significant health benefits including improved lipid profile, blood pressure, glucose metabolism, oxidative stress and thrombotic profiles^{6, 7}.

EVOOs with higher levels of phenolic compounds are more effective in lowering blood pressure⁸, improving lipoprotein profile^{9, 10} and reducing risk of mortality¹¹. EVOO can also increase levels of high density lipoprotein (HDL) cholesterol ('good' cholesterol), improve HDL function in the body and reduce low density lipoprotein (LDL) cholesterol ('bad' cholesterol)^{7, 10}. Improvements in blood pressure and lipid profile can reduce risk of cardiovascular diseases such as coronary heart disease^{8, 9, 10}.

EVOO has also been shown to prevent DNA oxidation¹² and inhibit cell growth providing antitumor effects⁶. In studies comparing oxidative DNA damage between high phenol EVOO and low phenol EVOO, consumption of high phenol EVOO saw reduced oxidative DNA damage when compared to low phenol EVOO¹². Reducing DNA oxidative damage contributes to cancer prevention as DNA damage may contribute to somatic cell mutation, leading to cancerous cell transformation¹². Oleuropein is another phenol in EVOO found to provide antitumor effects^{6, 13}. As an antioxidant, it may protect cells from genetic damage leading towards cancerous cell transformation¹³.

Apart from the cardio protective and anti-aging effects of polyphenols in EVOO, oleocanthal is a phenolic antioxidant responsible for anti-inflammatory properties. It has the same anti-inflammatory action as ibuprofen¹⁴.

Factors that affect phenolic and antioxidant content

Though all olive oils are polyphenolic substances, EVOO has a higher phenolic content than refined virgin olive oil. It can be affected by a range of factors such as cultivar, environmental characteristics, ripeness of the fruit, time and type of milling process^{6, 12}. The harvest time of olives affects mostly the phenolic content of the oil due to the oxidizing nature of antioxidants over time¹⁵. Oxidation and the production of peroxides may occur during the extraction of oil and prior to bottling, but the rate that oxidation occurs inside the bottle will be reduced¹⁵.

EVOOs with higher phenolic content have been reported to have a more robust flavor, pungency and some bitterness¹⁶. The phenolic content also helps to increase absorption of lycopene, the main carotenoid in tomatoes, when cooking¹⁷. Lycopene is responsible for reducing risk of some cancers and heart disease¹⁷.

Health benefits associated with monounsaturated fats in EVOO

EVOO is known as a healthy fat largely due to its high monounsaturated fat (MUFA) and low polyunsaturated fat (PUFA) profile⁶. The fatty acid compositions of EVOO predominantly include oleic acid (MUFA), linolenic acid (PUFA), linoleic acid (PUFA) and a small amount of other saturated fatty acids such as palmitic acid^{6, 15}. A diet comprised of monounsaturated fatty acids has benefits towards insulin resistance, overweight, cardiovascular disease, cognitive decline and inflammation.

The consumption of meals containing MUFA from olive oil has shown to improve cardiovascular risk factors¹⁸. Positive effects on the modification of metabolic biomarkers after following a Mediterranean diet compared to a low fat diet have also been seen¹⁹. A Mediterranean diet that heavily involves olive oil (often EVOO) can also lead to better weight loss outcomes¹⁹ and is significantly associated with lower waist circumference²⁰. This may be attributed to an increased sense of satiety when consuming EVOO, as oleic acid is similar to the action of a satiety hormone (anandamide)²¹.

High MUFA intake is also positively associated with age related cognitive performance and protection against Alzheimer's disease. Recent studies have shown an olive oil rich diet supports healthy aging and increased longevity factors¹⁸.

Oleic acid shows cardio protective effects including the increased oxidative stability of LDLs and inhibiting formation of blood clots²¹. In addition to oleocanthal that promotes anti-inflammatory properties discussed earlier; oleic acid can also inhibit synthesis of pro-inflammatory mediators²². This result was found in rheumatoid arthritis patients receiving omega 3 fish oil supplement and 9.6ml of olive oil for 24 weeks²². The combined effect of oleic acid and omega 3 fish oil demonstrated improvement in joint tenderness and painful joints²².

Health benefits associated with squalene

Squalene has a major role in the biosynthesis of cholesterol⁶. While other food and oils have some levels of squalene (0.002-0.03mg/g), EVOO has the highest concentration (0.7mg/g)⁶. The majority of squalene is transported to the skin; the sebum and minimum amount are deposited in adipose tissues⁶. Dietary squalene in animal studies has shown to inhibit production of cholesterol^{6, 23}. Squalene is also believed to be responsible for the low rates of skin cancer in populations that adhere to the Mediterranean diet as it can decrease UV induced DNA damage in cells^{6, 24}.

Health benefits associated with vitamin E

Vitamin E exists as a phenolic compound in EVOO and has shown to reduce risk of atherosclerosis and many inflammatory processes as an antioxidant by preventing lipoprotein oxidation and protecting cells from free radical damage²⁴. It also protects against oxidative stress associated with aging, degenerative diseases and cancer²⁴. In addition, the phenolic content, particularly hydroxytyrosol, was found to have an equivalent role to that of vitamin E in protection against LDL oxidation²⁵.

Alpha tocopherol (a-TOH) represents more than 90% of the vitamin E found in EVOO²⁴. In an animal study, a-TOH was found to inhibit allergic reactions in early life and development²⁶. Dietary vitamin E may also influence the risk of mild cognitive impairment and Alzheimer's disease²⁶.

Factors affecting the vitamin E content

Vitamin E or tocopherol is a strong antioxidant and has shown to decrease significantly as olive fruit mature¹⁵. In a study that compared 430 samples of EVOO, the range of tocopherol contained varied between 23 and 751 mg/kg⁴. Tocopherol in EVOO from Italian olive cultivars is also found more concentrated when grown in higher altitude²⁷.

Specific attributes of AEVOO

Climate and altitude appears to influence fatty acid profiles. Australian cultivars have shown to have oleic acid levels within the International Olive Council (COI) standards of 55-83% of total fatty acids, with olive oils produced in cooler regions of Australia, such as Central and Southern Victoria, being on the higher end¹⁵. When comparing to cultivars grown in Europe, there is a higher concentration of linolenic acid (PUFA) in all Australian olive cultivars regardless of region¹⁵. Australian olive oil also has a lower palmitic acid concentration which improves oil stability at higher temperatures¹⁵.

Time of harvest has been shown to have an effect on the stability of EVOO due to variations in levels of some fatty acids. The time of harvest of Australian cultivars affects the concentration of linoleic acid with the later harvests having a higher amount, resulting in less stable oil thus increasing the rate of oxidation¹⁵. No consistency was really seen with oleic acid concentration and time of harvest however generally early harvested fruit seemed to result in slightly lower oleic acid concentration; however this variation was seen to be very minimal¹⁵. Both linolenic and palmitic acid did not show clear or significant variations between early and late harvest¹⁵.

Harvesting the olive fruit at peak ripeness is important in order to preserve the presence of antioxidants such as Vitamin E. Vitamin E (α -TOH) content has shown to decrease significantly as olive fruit mature¹⁵. The type of cultivars grown in Australia may also affect the concentration, for example Leccino and Pendolino contain higher levels of Vitamin E than Manzanillo¹⁵.

Quality of AEVOO in relation to cooking versatility

The Australian Standard for Olive Oils and Olive Pomace Oils was developed by Standards Australia in conjunction with the Australian Government, the olive industry and other key stakeholders to protect the integrity of the industry and supply chain in Australia. It outlines the different grades of oil available, including a definition of what constitutes EVOO, provides guidelines on 'best before' claims, labelling requirements, testing methods and acknowledges variations in countries/regions and varieties²⁸. Adherence to this standard, however, is voluntary and there are no legal implications for not following it. Testing carried out by the Australia Olive Association (AOA) found that compliance with the Standard is more of a problem with imported oils than oils produced in Australia²⁹. The AOA is currently working to have the standard mandated.

AEVOO purchased and consumed in Australia, has been shown to be of higher quality when compared with international varieties as Australian produced EVOO was fresher and reached Australian consumers much more quickly³⁰.

The high MUFA and low PUFA concentrations found in EVOO are beneficial for the oxidative stability of the oil. Olive oil has a relatively long "deep frying shelf life" and is more stable when compared to other oils for repeated frying due to its high MUFA content⁶. For instance, frying fish increases EVOO instability as the oil becomes enriched with PUFA⁶. The antioxidants present in olive oil limit the formation of carcinogenic heterocyclic amines that can potentially be produced when frying foods with high protein levels such as meat and eggs⁶. The smoke point of EVOO is 180-210°C which is well above the ideal temperature for cooking via pan frying (120°C), deep frying (160-180°C) or oven baking (below 200°C). Once oil reaches its smoke point, it is possible that toxic compounds are

produced such as polycyclic aromatic hydrocarbons³⁴. New research has also shown that smoke point of oils is a poor predictor of an oil's performance and stability³⁵. Percent measurement of the presence of negative polar compounds (that link to cancer and neurodegenerative diseases) in oil when heated to 240°C over 15 minutes saw EVOO performing the best over other oils³⁵.

Flavour and diversity of AEVOO is affected by the type of olive varietal, the soil they are grown in and harvesting time^{31, 32}. The bitterness profile is commonly used to describe the flavour of AEVOO and has been viewed as a detriment to AEVOO's versatility in cooking. However, Australia has a great variety of EVOOs due to the many growing regions, climates and soil types available³³. As a result, many different flavoured AEVOOs are now available on the market, diversifying its ability to be used in a wide range of meals and cuisines.

As labels do not reveal the phenolic content, which are a good indicator of a quality EVOO, and phenols diminish with time, a high percentage of EVOO that is sold is not fresh³⁵. It is recommended that labels on EVOO packaging should provide the harvest date of the olives (so customers can select oils with a harvest date from the most recent season) and should also provide storage instructions (i.e. store with minimal exposure to sunlight)³⁶.

6. Conclusion

This review summarised the health benefits of consuming EVOO in relation to major chronic diseases. There is sufficient evidence supporting the health benefits associated with adherence to an EVOO enriched diet such as the Mediterranean diet. The combined effects of phenolic contents, antioxidants, high monounsaturated fats and other chemical compounds are reported to provide powerful health promoting effects against inflammatory and age dependent conditions such as cancer, CHD, overweight and neurodegenerative diseases^{5, 24}.

This review also explored the uniqueness of AEVOO in regard to the climate, altitude of growth, time of harvest and cultivars of olives in relation to the therapeutic and culinary uses of EVOO. Variability in some phenolic compounds were seen in Australian cultivars when compared with International standards¹⁵. Flavour and diversity of AEVOO was shown to be affected by the olive varietal, the soil they are grown in and harvesting time^{31, 32}. Overall Australian producers of EVOO are able to get their product to consumers quicker than international varieties guaranteeing a fresher and more stable product³⁰.

There was limited research comparing Australian and European EVOO in regard to its consumption and nutritional benefits. The duration of study designs was varied across studies reviewed, ranging from 3 weeks to 24 months. As EVOO was reported to be beneficial to age related diseases, study design would need to be more extensive by involving different age groups, for populations that are not regularly exposed to EVOO and for longer duration to investigate its health effects in humans.

This review is useful for informing the development of educational materials targeted to the food service industry to clear up current misconceptions in relation to the quality and freshness of AEVOO and suitability for using in a variety of cooking methods. More specifically the misconceptions around the stability of AEVOO when used at high cooking temperatures and its diverse flavour profile could be key messages to promote to the food service industry, particularly trainee chefs. Whilst the health

benefits are well known for AEVOO, it is acknowledged that this may not be a driver for chefs to choose AEVOO over other oils. Education about differences in types of olive oil, the Australian Standard for Olive Oil and Olive Pomace Oils, taste profiles and labelling would also be important for trainee chefs and the food service industry.

7. References

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APPENDIX 6

OL16004 Olive Oil Food Service Project

SWOT analysis

Australian extra virgin olive oil in the foodservice sector	
Strengths	<ul style="list-style-type: none"> Can showcase Australian extra virgin olive oil (AEVOO) provenance on menu – ‘local’ appeals to customers Flavour and the different flavour varieties of AEVOO available (i.e. robust, mild, classic, infused) Freshness of AEVOO Versatility – can be cooked in different ways (e.g. frying, baking/roasting, sweet baking and more) Myriad of health benefits which meets customer demand/trend for ‘healthier’ foods Safety of cooking with AEVOO vs. refined olive oil (blend) and other oils (e.g. can cook to high temperatures and doesn’t produce ‘toxic’ compounds) Australian certification for AEVOO offers assurance of a high quality) and fresh product Target audience (culinary training institutes) open to partnership and embedding education program/resources – see value in evidence-based program that enhances their teaching material
Weaknesses	<ul style="list-style-type: none"> Cost – more expensive to purchase AEVOO vs. international EVOO (~\$13.50/L for imported vs. ~\$20/L for Australian¹) and AEVOO more expensive than other oils (including refined olive oil blends) Distributor/supplier promotions for AEVOO seem to be minimal (from stakeholder interview reports) Perception that EVOO and AEVOO have limited culinary use (e.g. cannot be cooked & only used cold/fresh to ‘finish’ a dish) (due to oil properties, such as smoke point.) Robust flavour EVOO and AEVOO limits culinary use¹ Not suitable for all cuisine types (e.g. Asian, Middle-Eastern) Generally, in foodservice there is no customer demand for AEVOO (or any particular oils) May be limited capacity of established chefs/foodservice industry to make a significant change to switch to AEVOO (impact on time, budget, change of supplier etc.) Certification process of AEVOO is not widely known in the foodservice sector Lack of knowledge of what is EVOO vs. other olive oils and ‘blends’ (including knowledge about production methods/processing) Level of commitment required by culinary institutes (target audience) to integrate new material into their curriculum could be perceived as cumbersome
Opportunities	<ul style="list-style-type: none"> Highlighting quality of AEVOO to foodservice industry including promotion of the Code of Practice and the Australian Standard for olive oil (Australian Standard for Olive Oils (AS5264 -2011)) Increase knowledge about EVOO vs. olive oils and blends - definition, production methods etc. Address misconceptions in relation to cooking with AEVOO (e.g. safety of heating, smoke point, cooking versatility) – strong opportunity for education Educating foodservice industry about ‘value for money’ when it comes to purchasing AEVOO over international EVOO) Educating foodservice industry about ‘value for money’ when it comes to purchasing EVOO vs. other oils Promoting freshness of AEVOO Versatility – highlighting cooking versatility of AEVOO with different flavour profiles (e.g. robust, mild), including use of AEVOO for different cuisines, dishes and cooking methods.

¹ Australian Olive Association LTD and Hort Innovation. McFarlane, P. AOA 2017 Market Survey of olive products labelled as EVOO (Presented at Australian Olive Association conference, 11th October 2017)

	<ul style="list-style-type: none"> • Promote AEVOO as a local product on menus (enticing to customers) • Promotion of 'back to basics' for customers 'tired of fad diets and foods' • Promote health benefits (may be a driver for some) • Supplier/distributor education on AEVOO (note: beyond scope of this project – for future consideration)
Threats	<ul style="list-style-type: none"> • Marketing programs of other oils (e.g. oil blends available in large volumes and regularly promoted/marketed) • Partnerships between culinary training schools (target audience) and distributorse.g. TAFEs have distributor relationships to supply oils/ olive oil blends which could impact on inclusion of our education program in curriculum • Foodservice and distributor/supplier existing relationships/loyalty (may receive discounts on certain oils) • Recent improvement in international EVOO quality (documented in evidence¹) • Mislabelled oils • Other oils (e.g. canola oil) available in large volumes, promoted heavily and have a more flavour neutral profile • International EVOO cheaper, can be available in higher volumes (but potentially of inferior quality) • Complexity of online teaching platforms (of culinary training schools) impacting ability to embed education material therefore impacting project timelines • Customer demand/trend for 'healthier' oils i.e – coconut or avocado oil



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COMMUNICATION AND ENGAGEMENT PLAN

This communications and engagement plan has been developed as part of the Olive Oil Food Service Program (OL16004) project which is being funded by Horticulture Innovation Australia and delivered by Nutrition Australia.

**Horticulture
Innovation
Australia**

**Nutrition
Australia**

COMMUNICATION AND ENGAGEMENT GOAL

Increase usage of Australian extra virgin olive oil across the food service industry

Educating current and future chefs/
cooks (cafes, restaurants, pubs/clubs,
institutional) on the versatility, quality,
and value of Australian Extra Virgin Olive
Oil (AEVOO) will lead to increased usage
across the food service industry.

COMMUNICATION AND ENGAGEMENT OBJECTIVES

Increase usage of AEVOO across the food service industry

Short-term

Increase awareness of the versatility, quality and value of AEVOO in the culinary training institutes

Measurement

- Pre- and post-program survey (trainers and students) to measure changes in knowledge and perceptions of EVOO and AEVOO
- Focus groups with trainers and students to evaluate program engagement

Medium-term

Increase demand for AEVOO in the food service industry*

Measurement

- Increase in sales of AEVOO in the food service industry

*Disclaimer: We acknowledge that medium term increases in demand are outside the scope of this project but provide a potential future direction.

ADOPTION DRIVERS AND BARRIERS

Extensive research was conducted to understand the current perceptions about AEVOO.

The main drivers and barriers to adoption identified during this process are outlined on the following pages.

DRIVERS FOR AEVOO ADOPTION

Taste/Flavour

The 'robust' taste of AEVOO and 'flavour range' that is available through AEVOO compared to international olive oil.

Provenance

The opportunity to showcase the provenance of AEVOO on the their menus, with the promotion of local produce a growing trend in food service.

Education

Understanding more about the product, including through suppliers/distributors, will lead to greater adoption.

BARRIERS TO AEVOO ADOPTION

Cost

The significantly higher cost of AEVOO means many chefs will not use it for large volume cooking.

Availability and promotion

Large food service suppliers/distributors promote cheaper oil blends and international EVOO.

Flavour

Due to flavour perceptions, chefs see AEVOO as being specific to cuisine and cooking purpose, rather than a versatile oil.

BARRIERS TO AEVOO ADOPTION

Limited versatility

Chefs view AEVOO's usage as being limited to purposes such as dressings, marinades, finishing a dish, dipping bread etc as opposed to using in volume cooking (shallow frying, deep frying).

Safety

Perceptions on low smoke point means chefs limit its usage to dressings/marinades as opposed to shallow/deep frying.

A chef in a white hat and dark uniform is standing in a professional kitchen, looking down at a small object in his hands. The kitchen has stainless steel surfaces, large pots, and a range hood. The image is overlaid with a semi-transparent green filter.

STRATEGY

The key advantage that AEVOO offers the food service industry is its versatility – it is superior in quality/ taste/flavour to other oils at every price point and is suitable for a wider range of cooking applications than is generally understood in the food service industry.

This is a result of a fresher product and higher standards of Australian olive oil production.

Provenance is a key driver, as both chefs and consumers seek to promote/consume and value local products.

Currently, the versatility of AEVOO isn't being utilised to its full potential in the food service industry due to a significant amount of misinformation about the product. Cost is also a barrier.



STRATEGY

Education of chefs (and potentially food service distributors/suppliers) is needed to dispel 'cooking myths' and promote the versatility of AEVOO. This will have the biggest impact on the adoption of AEVOO across the food service industry.

If education can lead to increased demand because of AEVOO's versatility, cost will become a lower consideration for the food service industry.

In the longer term increased demand may lead to increased supply of lower cost products for higher volume applications (such as frying) reinforcing the versatility reputation.



STRATEGY

To highlight the versatility of AEVOO in the kitchen, current and future chefs need to understand the full range of uses of the product – its versatility.

There is an opportunity build on the 'EVERYDAY' consumer campaign already being used by the AOA by aligning the messaging.

The campaign message for the food service industry communication and engagement campaign will become:

EVERYDAY IN EVERYWAY

CAMPAIGN MESSAGE

EVERYDAY IN EVERYWAY

Australian Extra Virgin Olive Oil is the freshest, highest quality and most versatile oil you can use in your kitchen. From frying to finishing, and everything in between, Australian Extra Virgin Olive Oil brings freshness and flavour to every dish.

TARGET AUDIENCES

Future and current chefs

Educating future and current chefs about the benefits of Australian Extra Virgin Olive Oil is likely to have the biggest impact on increasing demand.

1. Primary audience – Student/trainee (future) chefs

This group is less likely to have preconceived perceptions of AEVOO, so may be more likely to buy into the messaging and utilise AEVOO in a broader range of ways. This is a long-term strategy, as this audience may not be able to influence buying decisions in a commercial kitchen for many years.

A background image of a kitchen with various items like a pot, a glass, and a knife. A semi-transparent green rectangle is overlaid in the center, containing white text. The text is centered and includes a title, a subtitle, and a list item.

TARGET AUDIENCES

Future and current chefs

1. Primary audience – Student/trainee (future) chefs

Students/trainee chefs at TAFE/culinary
schools in NSW and Victoria

TARGET AUDIENCES

Secondary Audiences

2. Secondary audience – Established (current) chefs

This group remains an important audience to educate with AEVOO's versatility and value proposition, however, overcoming preconceived thinking about the product will be more challenging.

KEY MESSAGING

Versatility

AEVOO is the versatile oil. With flavour profiles to suit any cuisine or dish – sweet or savoury – it is truly the only multi-purpose oil in the kitchen.

From frying and sautee to dressings, marinades and dipping, AEVOO is the all-round performer you can use everyday, in every way.



KEY MESSAGING

Quality and Freshness

Grown and pressed by Australian growers, AEVOO arrives to your kitchen fresh from the tree. Our growers proudly display harvest date and best before dates on their bottles so you can trust that AEVOO is fresh.

With Australia's highest quality standards in the world for olive oil production, you can be sure you're passing onto your customers the safest, healthiest product.

AEVOO is the pure expression of Australia's highest quality olives, and nothing more. No chemicals, preservatives or blends, it is the trusted kitchen companion that brings out the best in your cooking.

KEY MESSAGING

Quality and Freshness

Utilising the highest quality ingredients means you'll deliver the highest quality product to your customers – there's no fresher or higher quality oil than AEVOO.

With consumers demanding higher quality ingredients and increasingly wanting to understand the origins of the food they eat, AEVOO is the oil you can proudly stand behind.

KEY MESSAGING

Safety and Health

Time and again, research has shown that EVOO is one of the safest and healthiest oils in the world to cook with, both in commercial and home kitchens.

Australian olive oil has a high smoke point (between 180 – 210 degrees for EVOO and even higher for AEVOO) meaning it can be heated to very high temperatures without chemical changes occurring.

It is a very stable oil for deep frying and has a longer shelf life..

Consumers are demanding healthier food options
– AEVOO is associated with a wide range of health benefits, from heart health to weight control.

KEY MESSAGING

Value

AEVOO is a premium quality ingredient. To produce high quality food that tastes great, you need to work with the best ingredients.

Every chef strives to make the best quality food. The oil you use is a key ingredient in your cooking, so why would you use an old, blended or second-rate oil. It will only detract from the standard of your cooking.

While you may pay slightly more for AEVOO than lower quality oils, there is a world of difference in the quality oil, and the standard of food it will enable you to deliver.

KEY MESSAGING

Flavour

AEVOO comes in a range of flavour profiles to suit any cuisine or dish – sweet or savoury. Robust styles are best suited to full-flavour dishes, while milder styles of AEVOO can be used when you are seeking a more subtle flavour.

KEY MESSAGING

Provenance

Consumers are demanding the freshest ingredients and seeking to understand the origins of their food. With AEVOO, your consumers are assured of its freshness, quality and that it has been sourced locally.

COMMUNICATION AND ENGAGEMENT TACTICS

Video series

A series of three videos which outline the key benefits of AEVOO and dispel common myths.

The proposed video structure is to feature three current chefs (one per video), representing the spectrum of the food service industry.

1 Pub/club chef

2 Café/bistro chef

3 Fine dining restaurant chef

COMMUNICATION AND ENGAGEMENT TACTICS

Video series

The concept for the video is to have each chef demonstrating different ways of incorporating AEVOO into their kitchen. They would produce different kinds of dishes (both sweet and savoury) utilising AEVOO, demonstrating its versatility but also dispelling myths at the same time. For example, in a pub/club, the chef may demonstrate three dishes – a shallow fried dish, a marinated dish and a dressed dish – each with AEVOO as a primary ingredient. They will provide commentary that will highlight how versatile and healthy the product is and dispel misinformation.

The background image shows a busy kitchen environment. Several chefs in white uniforms are visible, some working at a counter and others standing. The scene is dimly lit, with a greenish tint, and the focus is on the text overlay in the center.

COMMUNICATION AND ENGAGEMENT TACTICS

Video series

Distribution

The primary audience (students/trainee chefs) will be engaged by embedding the videos in the culinary school/TAFE curriculum and screening the videos during training. Facebook will provide message reinforcement.

The secondary audience (current chefs) will be engaged via paid Facebook distribution which enables precise targeting and measurement.

COMMUNICATION AND ENGAGEMENT TACTICS

Video series

Distribution

AEVOO Everyday Facebook account will be used as a distribution channel

- There are more than 250,000 Australians using Facebook on a daily basis, who identify themselves as working in the food and hospitality sector. Stakeholder research indicates the hospitality sector is highly engaged in online content about food trends and products.
- This sector will be directly targeted using sponsored posts and digital advertising
- High engagement via mobile – appropriate for a mobile service sector

COMMUNICATION AND ENGAGEMENT TACTICS

Website landing page

A landing page (housed on the AEVOO website) will be developed for the food services campaign where campaign messages and content can be curated. The videos produced will be available at this website for educators to download.

This site may also play a role in promoting events, competitions and capturing contact details of trainee chefs.

COMMUNICATION AND ENGAGEMENT TACTICS

Training fact sheets

To accompany the videos during training, fact sheets will be produced highlighting in written or infographic format the key benefits of AEVOO and dispelling myths.

These fact sheets will be embedded in the culinary school/TAFE curriculum and provided to students/trainee chefs during training.

These fact sheets could also be produced as a poster/wallchart for display in commercial kitchens, targeting established chefs. Posters/wallcharts will also be provided to culinary institutes to reinforce messaging.



COMMUNICATION AND ENGAGEMENT TACTICS

AVEOO exclusive event series (future option)

Stakeholder research found that chefs are attracted to events such as master-classes, tastings and cooking demonstrations for professional development and peer-to-peer engagement.

While this is out of the current project scope and budget, FULLER recommends HIA consider how to fund/manage its own AEVOO events (eg tastings in high profile restaurants with winemakers and other chefs) or partner with existing events eg Foodservice Australia, Melbourne Food and Wine, Tasting Australia.

Benefits are face-to-face engagement and the development and maintenance of an industry database for ongoing communication.

A background image of a chef in a kitchen, smiling and holding a small dish. The image is overlaid with a semi-transparent green rectangle containing text.

COMMUNICATION AND ENGAGEMENT TACTICS

AEVOO exclusive event series

This could be held during the Australian Olive Oil Association's proposed harvest festival in June.

It could also be utilised as a networking event to connect students/trainee chefs to established chefs.

During the event, messages/promotion of AEVOO would be incorporated.



COMMUNICATION AND ENGAGEMENT TACTICS

AEVOO exclusive event series

For the first event, promotion to student/trainee chefs would occur through culinary schools and potentially Facebook paid advertising.

Student/trainee chefs and established chefs would be encouraged to register for the first event, after which time, their details would be recorded and they would receive invites to future events.

COMMUNICATION AND ENGAGEMENT TACTICS

Olive harvest competition (future option)

While this is again out of the current budget scope FULLER recommends future funding to link the hospitality sector to growers (paddock to plate) – a popular engagement technique with other beverage and food commodities.

For example each year in the lead-up to olive harvest, a competition could be conducted and promoted through TAFE/culinary institutes for four to five students to win an exclusive olive oil harvest experience eg participate in harvest with a grower, get involved in the oil crush and quality tasting, prepare an end of vintage lunch. This could also be an opportunity to capture video content.

The Australian Olive Oil Association is planning an annual national Harvest Festival (starting June 2018) and this could provide a future collaborative opportunity.



COMMUNICATION AND ENGAGEMENT TACTICS

Olive harvest competition

This competition also gives the industry the opportunity to develop and maintain a database of their target audience – influential chefs.

This experience provides an opportunity to promote the freshness/quality message to students and established chefs.



COMMUNICATION AND ENGAGEMENT TACTICS

Olive harvest competition

The competition could be promoted to students/trainee chefs during their training.

A second opportunity could also be provided to established chefs, with promotion of the competition via paid Facebook distribution.

COMMUNICATION & ENGAGEMENT TACTICS SUMMARY

Activity	Timing	Distribution
3-video education series	Pilot video (test target audience) March/April 2018 2nd & 3rd video September 2018	Via culinary schools for trainee chefs Via paid Facebook for established chefs
Website landing page	Launched September 2018	Landing page made live
Fact-sheet (for training and potentially commercial kitchen)	Ready for pilot video distribution in March/April 2018	Via culinary school for trainee chefs Potentially distributed to kitchens of established chefs
Event series (to develop and maintain engagement with database)	First event implemented in early 2019	Via culinary schools for trainee chefs Via paid Facebook for established chefs
Olive harvest competition (to develop and maintain engagement with database)	Promoted from February 2019 in readiness for harvest week 2019	Via culinary schools for trainee chefs Via paid Facebook for established chefs

APPENDIX 5

Nutrition Australia (Vic) Olive Oil Food Service Program

Evaluation Plan

Acronyms used in this plan

AEVOO	Australian extra-virgin olive oil
EVOO	Extra-virgin olive oil
Nutrition Australia	Nutrition Australia Vic Division
SIP	Strategic investment plan
SWOT	Strengths, weaknesses, opportunities and threats

Overview

This document outlines an evaluation plan for the OL16004 Olive Oil Food Service Program, delivered by Nutrition Australia Vic Division (Nutrition Australia) with funding from Horticulture Innovation Australia (Hort Innovation). The program aims to increase the knowledge about Australian Extra Virgin Olive Oil (AEVOO) with trainee chefs in Victoria and New South Wales.

A key objective is to develop educational material about extra virgin olive oil (EVOO) and AEVOO that can be embedded within Certificate III commercial cookery courses offered at various tertiary culinary training institutes in Australia. It will involve the development of three educational videos along with fact sheets and other supporting resources. A webpage based on these education materials will also be developed. This will serve as a general resource for chefs/cooks in the Australian food service industry. It is expected that the program will be rolled out to commercial cookery courses in Victoria and New South Wales.

Horticulture Innovation Australia has identified that there is a lack of knowledge and a number of misconceptions about olive oil in the Australian market – even in areas where enhanced knowledge of oils might be expected, such as the food service sector. Some of the lack of knowledge and misconceptions surround the product itself (e.g. how it is produced and its varying taste profiles) and the ways EVOO can be used in cooking and food preparation¹. There is a clear opportunity to educate new and emerging chefs about AEVOO. A secondary outcome of the project will be increased capacity of culinary teachers to communicate accurate, scientifically-based messages about AEVOO. The resources produced will support teachers in communicating these messages through their curriculum.

Evaluation will be both formative and summative, while regular monitoring and communication with the participating culinary institutes will ensure that the program's educational material is being presented as agreed upon. Formative evaluation will involve gaining feedback from a small sample of the target populations on the development of the educational videos. This data collection, along with the SWOT analysis, will inform the production of the three videos. Summative evaluation will occur in two ways. First, through a

pre-program survey to gain a quantitative assessment of the target populations' baseline knowledge and perceptions about EVOO and AEVOO use prior to the roll-out of the program, followed by a post-program survey to capture changes in knowledge and perceptions of trainee chefs, as well as teachers. This will provide a quantifiable assessment of the extent to which the intermediate outcome of increasing knowledge of trainees has been achieved. It also will provide an assessment of the extent to which the program has also met its secondary aim of improved knowledge of teachers about the benefits and uses of AEVOO. Second, focus group discussions with both trainees and teachers on completion of the program will evaluate how participants have engaged with the program. These focus group discussions will explore how participants perceive their understanding to have changed, and to explore their perceptions of associated changes or likely changes in their practice. This will explore the possible contribution toward or unanticipated barriers to, Hort Innovation's Strategic Investment Plan's (SIP) outcome of increasing demand for AEVOO in Australia.

Program Logic

Hort Innovation's project logic level hierarchy is represented in the program logic model provided in Fig. 1 (pg. 4), with the dotted lines representing a 'line of accountability'¹. The outcome 'above the line' relates to the outcome in Hort Innovation's strategic investment plan that this project is expected to contribute to. The outcomes represented 'below the line' indicate the specific outcomes that Nutrition Australia will be responsible for.

Above-the-line outcome

The Olive Oil Food Service program falls under outcome 2 of Hort Innovation's Strategic Investment Plan (SIP) which is a greater demand for AEVOO in Australia and overseas. Specifically, the program sits under strategy 2.3 of disseminating scientifically accurate messages about AEVOO to potential customers. This strategy has the associated high-priority deliverable of providing education to the Australian food industry about the benefits and uses of AEVOO. The rationale underpinning the provision of education as a way of boosting demand for AEVOO is based on the assumption that chefs and cooks who are knowledgeable of AEVOO's benefits and uses will use greater quantities of it in their cooking.

Below-the-line outcomes

The main **end-of-project outcome**² that Nutrition Australia's program aims to make a contribution toward is an increased use of AEVOO amongst new cooks and chefs entering the Australian food industry. To achieve this overall goal, Nutrition Australia aims to address the specific **intermediate outcome** of improved knowledge (and capacity) of trainee chefs/cooks at participating institutes about the attributes, benefits and uses of AEVOO. This will be achieved by:

1. Correcting misconceptions about AEVOO that persist in cookery training courses.
2. Filling the gap in knowledge about the benefits and uses of AEVOO in food preparation.

¹ Hort Innovation Project Monitoring & Evaluation Planning – template and guide, p. 11

² Words in bold indicate the key program logic categories represented in Hort Innovation's program logic model template. A program logic model for the Olive Oil Food Service program based on this template appears in Fig. 1.

These strategies are based on findings from Nutrition Australia's SWOT analysis that indicate the existence of misconceptions and gaps in knowledge about AEVOO within commercial cookery training courses. The program specifically targets trainee chefs in selected commercial cookery courses.

The assumptions of the program that underpin the project rationale are the following:

1. Greater understanding of the benefits of AEVOO will lead to greater use of AEVOO by trainee chefs and cooks, and thus increased use of AEVOO amongst new chefs and cooks entering the Australian food industry.
2. From a stakeholder consultation carried out by Nutrition Australia's, culinary institutes have the capacity and interest in integrating a Nutrition Australia's education module about AEVOO into their existing curriculum.
3. If successful, the Olive Oil Food Service program will have a demonstrable change in student knowledge about AEVOO.

While the primary target is trainee cooks and chefs at the selected culinary institutes in NSW and VIC, the program is expected to also contribute to increased knowledge and capacity of teachers at these institutes to convey accurate information about the benefits of AEVOO.

Activities and outputs

The **foundational activities** that Nutrition Australia has carried out include the following:

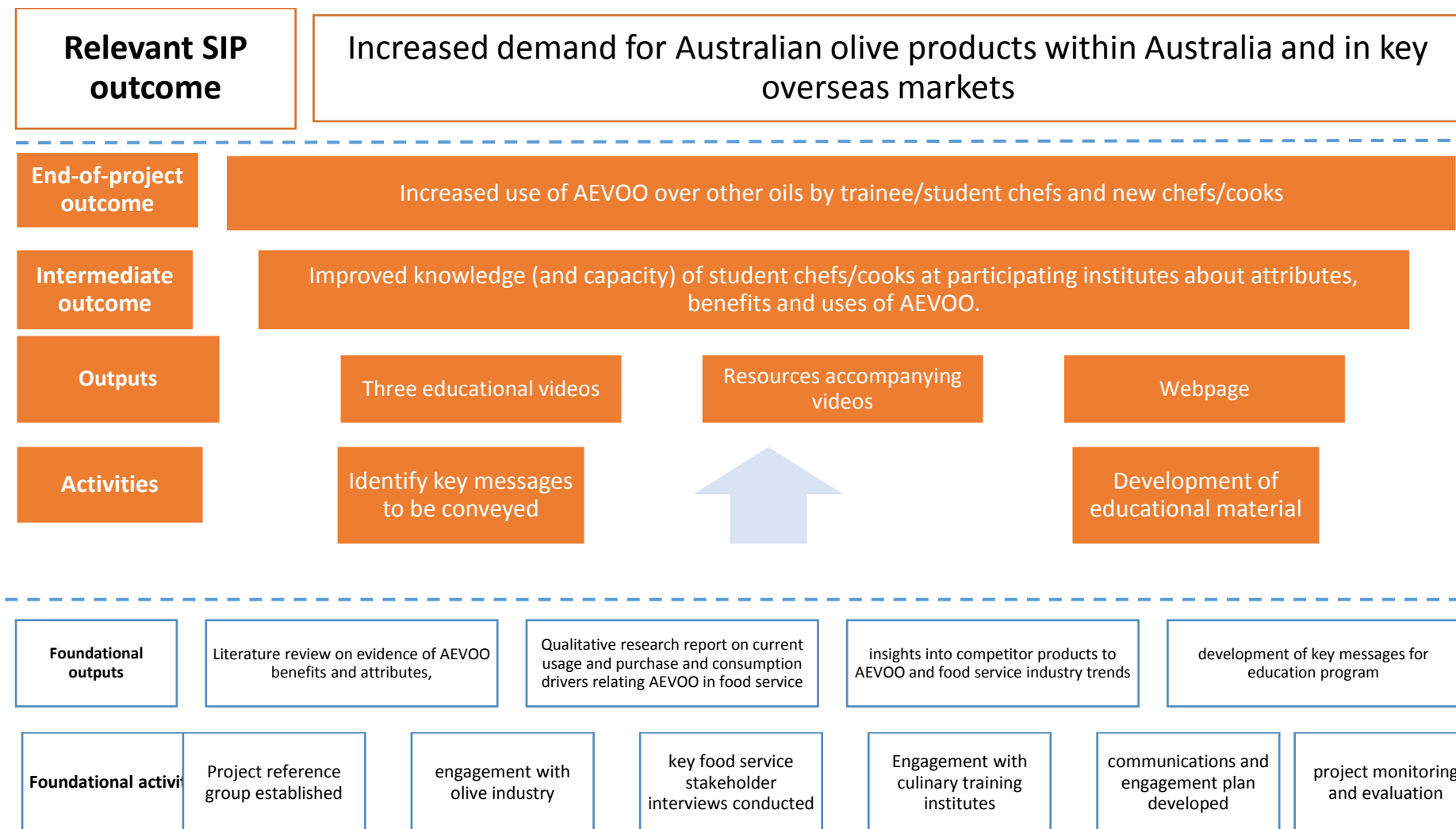
1. A literature review of evidence for the attributes, properties and benefits of AEVOO
2. Stakeholder interviews with established chefs to gain insight into current usage patterns of AEVOO in food service and purchase and consumption drivers
3. Research into food service industry trends and competitor products to AEVOO
4. Scoping culinary educational programs in NSW and VIC to assess the possibilities for the program's educational materials to be disseminated to students.
5. SWOT analysis identifying relevant opportunities for program.

These foundational activities inform the program's planning and development **activities** that include:

1. The identification of key messages and planning of the educational material.
2. The development and dissemination of the material.
3. The development of a monitoring evaluation plan.
4. The monitoring and evaluation to the project.

The tangible outputs of the program will include three educational videos with supporting resources such as information sheets, as well as a webpage on Nutrition Australia's website. Nutrition Australia will deliver a final report evaluating the Olive Oil Food Service program.

Figure 1. Program logic model



Project monitoring and evaluation scope

The evaluation of the project will focus on:

1. **Ensuring that the development of education material maximises the chance of attaining the intermediate goal (increased knowledge of AEVOO among trainee chefs).**

METHOD: Presentation of video storyboards to a focus group of teachers and culinary training representatives. As professionals in designing and conveying course material to trainee chefs, teachers and culinary institute representatives will provide important feedback on the suitability of the educational material.

2. **Measuring the extent to which:**
 - a. **the intermediate goal of increased knowledge of AEVOO amongst trainee chefs has been achieved.**
 - b. **there has also been an increase in capacity of teachers around the benefits of AEVOO.**

METHOD: Pre-program survey measuring baseline knowledge, and post-program survey measuring changes in levels of knowledge.

3. **Exploring the extent to which a shift in knowledge and perceptions is likely to lead to change in practice.**

METHOD: Trainee and teacher focus group discussions.

4. **Exploring the way in which students and teachers have engaged with the program, and how education material may be improved to better meet intermediate and end-of-project goals.**

METHOD: trainee and teacher focus groups.

Audience

TABLE 1 M&E AUDIENCE AND THEIR INFORMATION NEEDS

Audience	Information needed
PRIMARY	
Nutrition Australia project team (point of difference)	<ul style="list-style-type: none">• Whether the planned educational videos are relevant and accessible to teachers and students.• Whether the educational material is being used as agreed upon in discussions with institutes.• Whether the intermediate outcome of increased knowledge of AEVOO benefits and uses amongst trainee chefs exposed to the program has been met.
Hort Innovation	<ul style="list-style-type: none">• The viability of an educational program embedded within existing curriculum structures at culinary institutes.• The extent to which the program's educational

	<p>material has led to an increase in knowledge about AEVOO amongst trainee chefs exposed to the program, as well as capacity for teachers to communicate accurate info about AEVOO.</p> <ul style="list-style-type: none"> The extent to which a shift in perception and understanding is likely to result in the end-of-project outcome of behaviour change.
SECONDARY	
Established chefs working in food service in Australia	<ul style="list-style-type: none"> Whether established chefs have been exposed to the program, including videos, resources and website

Key evaluation questions

TABLE 2 PROJECT KEY EVALUATION QUESTIONS

Key evaluation questions	Relevant?	Project-specific questions
Effectiveness	✓	
Has the program achieved its intermediate outcome of increased knowledge of the benefits and uses of AEVOO amongst trainee chefs engaged with the program?		<p>Has there been a reduction in the misconceptions held by trainees, and if so, to what extent?</p> <p>Has trainee chef knowledge of the benefits of AEVOO increased, and if so, to what extent?</p>
Has the program resulted in a change of teacher capacity around the benefits of AEVOO?		<p>Has there been a reduction in the misconceptions held by teachers, and if so, to what extent?</p> <p>Has teacher knowledge of the benefits of AEVOO increased, and if so, to what extent?</p>
To what extent is the program able to contribute to the end-of-project outcome of a change in behaviour around use of AEVOO?		<p>How do teachers and trainees perceive the program has affected their use of AEVOO, or their likelihood to use it in their future work?</p> <p>What barriers remain to increased AEVOO usage amongst newly qualified chefs and cooks entering the Australian food industry?</p>
Relevance	✓	
Were the resources developed relevant to the curricula of commercial cookery courses?		<p>Relevance to teachers:</p> <p>Were teachers able to make use of the resources as intended?</p> <p>What obstacles, if any, did teachers face in including the educational material in their courses?</p> <p>How do teachers perceive that the program has changed what they are likely to communicate about AEVOO in the future?</p> <p>Are teachers likely to use the material beyond the duration of the project?</p>

		<p>Relevance to trainee chefs:</p> <p>Did trainees engage with the material as intended? (e.g. What resources were accessed, for what purpose and when?)</p>
Process appropriateness	✓	
Is the program being developed in a way that will maximise Nutrition Australia's ability to meet the intermediate goals?		<p>Are the planned educational videos relevant to trainees?</p> <p>Are the planned videos likely to engage trainees?</p> <p>How might the planned videos be improved to increase relevance and engagement?</p>
Efficiency	✓	
Is the program being rolled out according to the project timeline?		<p>Are the teachers presenting the material according to the agreed timelines?</p> <p>What additional support do teachers require to be able to present the program material within a reasonable time frame?</p>
Other (if any)		

Performance expectations, data collection and analysis

Methods

The main modes of data collection will be online questionnaires and focus group discussions.

Questionnaires

A standard multiple-choice and short-answer survey will allow Nutrition Australia to quantify changes in level of knowledge among trainees and teachers. This will provide an assessment of the extent to which the program has been able to meet the intermediate aim of increasing trainee chef knowledge of AEVOO. It will also allow changes in capacity of teachers to be measured. The survey will be conducted prior to the start of the program with the cohort of teachers and trainee chefs who will be exposed to the program. A follow-up survey will then be conducted on completion of the program. The surveys will be administered online using a survey platform such as Survey Monkey, and will be disseminated to all participants in the program. The sample size will be determined depending on the size of the populations (both teachers and trainee chefs) and recruitment will aim for a response rate of 30-40% in each instance. Pre- and post-program responses will be compared and analysed descriptively.

Focus group discussions

Focus group discussions will be conducted during the development of the educational videos, and once the project is complete. Focus group discussions are a cost- and time-effective way of gathering a breadth of information about the shared attitudes and perceptions of a group. One focus group of 4-8³ teachers and culinary institute representatives will be conducted in Melbourne during the development of the educational videos. Depending on what is possible, this sample may be drawn from one, or all, of the participating institutes in Victoria. The focus group discussion will explore whether the videos are communicating the intended messages in a way that is engaging and relevant to trainee chefs. This focus group will seek to gain feedback on the way in which the videos can be improved to maximise the program's ability to achieve the intermediate outcome of increased knowledge amongst trainees.

Focus groups will be conducted with trainees, as well as teachers, once the project is complete. Separate teacher and trainee focus group discussions will be conducted in both NSW and VIC. Ideally the sample will be drawn from all participating institutes⁴. Up to twelve participants will be recruited for each trainee chef focus group, aiming for a spread of trainees from participating institutes. Teacher focus groups will be smaller and will depend on the size of the population. The size of the focus groups will depend on the number of institutes recruited to the program in either state, and on where they are located, since this will affect whether or not combined focus groups can be held.

These post-program focus group discussions will explore in greater depth than the online surveys the ways in which participants engaged with the program content. Both trainee and teacher focus groups will explore the impact of increased awareness of the benefits of AEVOO on practice or anticipated practice in the future (for trainee cooks), and the barriers

³ A focus will ideally comprise at least six people, however, this will depend on the number of teachers and representatives involved in the project, and the size of the focus group will largely depend on what is feasible.

⁴ We aim to recruit a minimum of 3 culinary institutes to the program in both NSW and VIC.

to increased use of AEVOO, if these exist. Teacher focus groups will also explore participants' perceptions of how the program has or has not supported their teaching.

The focus group discussions will be audio-recorded and transcribed verbatim. The discussions will be analysed thematically. This will involve reading through the transcripts in full, and developing a coding framework into which the data can be sorted. The transcripts will then be coded according to this framework. Codes will be read, and further sub-codes will be developed to fully explain the data. The results will then be written up in an evaluation report.

Ethics

Formal ethics approval will be sought from all participating institutes according to the processes of each institution. If it is feasible for participants from both NSW and VIC, and from all institutions, to be recruited, this will involve the preparation of separate ethics applications, as well as addressing potential amendments to data collection as required by the individual institutions. However, as the nature of this project is likely to fall within a low-risk category in terms of ethics-committee decision-making, it is not anticipated that this will be a complicated process.

Data collection, storage, analysis and dissemination will be conducted in accordance with the National Health and Medical Research Council's (NHMRC) guidelines for human research⁵. Participants will be fully informed about the uses to which the information they will provide will be put. Consent for participation in the online surveys will be assumed by submission of the survey, while signed consent forms will be used in the case of focus groups. Student and teacher participation will be voluntary, anonymous and confidential. Data will be deidentified and, along with the consent forms, will be stored in a secure location.

⁵ NHMRC, 2015. *National statement on ethical conduct in human research*. Available online: https://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/e72_national_statement_may_2015_150514_a.pdf

Logic level	What to monitor	Performance expectation (KPIs) and /or monitoring questions	Data collection method and source	Timing of, and responsibility for, data collection
Foundational activities: Literature review, stakeholder interviews, scoping, SWOT analysis.				
Activities: identification of key messages, development of educational material, Monitoring & Evaluation planning, Monitoring & Evaluation outputs: educational videos, other resources and webpage.	Development of educational material	Are planned videos relevant to trainee chefs and do they engage them?	One focus group discussion with 4-8 teachers and culinary institute representatives in Melbourne..	
	Roll-out of education program	Are teachers presenting the material according to the timeframes agreed upon?	Contact with culinary institutes to ensure timely presentation of educational material.	
Intermediate outcome: increased knowledge of benefits and uses AEVOO amongst trainee chefs.	Change in knowledge and attitudes of primary target population (trainees).	Trainees are expected to have a greater level of knowledge of the benefits and uses of AEVOO after exposure to the program material.	Pre- and post- program survey measuring knowledge and attitudes towards AEVOO.	
End-of-project outcome: greater use of AEVOO among new chefs and cooks entering the Australian food industry.	Monitoring this outcome is beyond the scope of the Olive Oil Food Program.	Exposure to accurate information about the benefits and uses of AEVOO is expected to lead to an increase in use of AEVOO above other oil products by new chefs and cooks entering the Australian food industry.	N/A	
Others: Contribution to end-of-project outcome, engagement with program, relevance of program for commercial cookery curricula.	Possible impact beyond intermediate outcome; additional exploration of effectiveness of program.	Are participants more likely to use AEVOO in their cooking? How is the program likely to influence teacher communication about AEVOO in the future?	Focus groups with trainees and teachers in in both NSW and VIC.	

Reference

ⁱ Horticulture Innovation Australia, 2017. Request for Proposal – OL16004 Understanding and educating the food service market for olive oil

Australian
**Extra
Virgin**
Olive Oil
Everyday

FACT SHEET

IN THE KITCHEN

With countless health benefits and a range of flavour profiles to suit any type of cooking, Australian Extra Virgin Olive Oil is your perfect kitchen companion.

IN THE KITCHEN

Australian Extra Virgin Olive Oil is high in good (monounsaturated) fats and antioxidants, and 100% natural, making it a great tasting ingredient that's also healthy.

Australian Extra Virgin Olive Oil (AEVOO) is a truly multi-purpose oil in the kitchen. Use it to slosh, bake, fry, slurp and drizzle on any dish.

Cooking with AEVOO

Research has shown that Extra Virgin Olive Oil is one of the safest and healthiest oils for any type of cooking because:

- ✓ It is not **refined**
- ✓ It has **healthy**, stable fats
- ✓ It is naturally high in **antioxidants**

Mythbusting

Myth: You can't cook with EVOO
EVOO is one of the safest and healthiest oils for cooking at any temperature.

Myth: EVOO has no expiry date
EVOO is the fresh juice of the olive fruit and does degrade over time, meaning it's best to use fresh. Look for the harvest date on the bottle and be sure to select and use a AEVOO within 12 months of this date.

Myth: You can't use EVOO in non-stick pans
There is no evidence to support this. The healthy fats in EVOO make it very stable, preventing the oil from breaking down in the pan.

The Truth About Smoke Point

You may have heard the myth that extra virgin olive oil has a low smoke point and should not be cooked with. Here are some facts about smoke point:

- ✓ Smoke point is the temperature at which an oil starts to smoke constantly when heated.
- ✓ Quality AEVOO has a high smoke point, well above standard cooking temperatures.
- ✓ However, smoke point is not a good measure of how stable an oil is to cook with. It's the balance of healthy fats and natural antioxidants that makes AEVOO very stable and suitable for all cooking methods, including high temperature cooking.



EXTRA VIRGIN OLIVE OIL

The highest grade and healthiest cooking oil.
No chemicals, preservatives or blends.

OLIVE OIL

(Also known as Extra Light Olive Oil)

A refined oil that is subject to chemical processing.

REFINED OILS

(Many vegetable oils such as sunflower and canola)

Oils that are refined using chemical processes.

Why is AEVOO great value?



AEVOO is a premium quality ingredient. To produce high quality food, you need to work with the best.



While you may pay slightly more for AEVOO over lower quality oils, you will produce a standard of food you can charge more for.



Consumers are demanding the freshest ingredients and seek to understand the origins of their food. AEVOO is a fresh, quality and locally sourced ingredient.

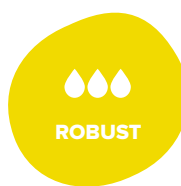
THE FLAVOUR MAKER



With a lighter taste, mild AEVOO is delicate, subtle and versatile – allowing other flavours to take centre stage. Perfect for uses such as stir-frying, baking and sautéing.



Classic AEVOO is brimming with fresh fruity aromas and pungent flavours, making it a good choice when you want a bit more flavour. Great for uses such as grilling, dressing salads, dipping or roasting vegetables.



For those who relish the delicious full flavour of olive oil, Robust AEVOO is the way to go! Perfect for roast meats and vegetables, or for generously drizzling on salads, and a welcome addition to stews, casseroles and marinades.

The Flavour Maker

AEVOO comes in a range of flavour profiles to suit any cuisine or dish. Robust styles are best suited to full-flavour dishes, while milder styles of AEVOO can be used when you are seeking a more subtle flavour.

Everyday

Australian
**Extra
Virgin**
Olive Oil
Everyday

FACT SHEET

SELECTING **HIGH- QUALITY** EXTRA VIRGIN OLIVE OIL

Not all extra virgin olive oils are created equal. Look for these characteristics in order to select high-quality Australian Extra Virgin Olive Oil.

SELECTING HIGH-QUALITY EXTRA VIRGIN OLIVE OIL

Extra Virgin Olive Oil shares some similarities with wine in the diverse range of flavours and styles available.

Like wine, the quality and taste of Extra Virgin Olive Oils are influenced by geographical factors, timing of the harvest and care of the growers and producers.

Unlike wine, Extra Virgin Olive Oil (EVOO) is best when it's fresh (within the first 12 months of harvest), meaning that minimising the time from the tree to table is vital.

The characteristics of quality Extra Virgin Olive Oil

Aroma

High quality and fresh EVOO should smell fresh like cut grass, salad leaves, tropical fruit or vegetables.

Colour

Colour varies greatly with EVOO based on the variety of olive and time of harvest, so has very little to do with the freshness and quality of the oil.

Flavour and Texture

A quality Extra Virgin Olive Oil should feel fresh and clean in the mouth. If it leaves an unpleasant, fatty coating on the tongue or mouth, it is old or rancid EVOO. Fresh EVOO may have nutty, fruity, peppery, bitter, rich, strong, butter or grassy notes.

The mark of quality

Given the high production standards and superior quality and freshness of Australian Extra Virgin Olive Oil (AEVOO), the Australian Olive Industry has developed a code of practice symbol to make it easy for chefs and consumers to identify AEVOO.

When you see the code of practice symbol, it indicates that a producer is the signatory to the Australian code of practice, now known as OliveCare®, meaning:

- ✓ The oil is high quality, clean and fresh
- ✓ The product is tested each year to ensure it meets a premium standard
- ✓ The producer has good grove management processes
- ✓ The producer undergoes chemical testing on a regular basis and must also pass an organoleptic (taste and smell) test



Why choose Australian?

Of all the mainstream edible oils, EVOO is the only oil that is not chemically or physically refined and rectified, meaning it is 100% the natural juice squeezed from the fruit of the olive.

Being such a fresh and natural product, it does deteriorate with age. Therefore, carefully selecting EVOO is vital in order to realise all the flavour and health benefits.

The Australian Standards for EVOO production are some of the toughest in the world, and certified producers must comply with a broad range of requirements, including:

- ✓ Labelling clearly outlines whether the oil is natural

or refined, and minimises consumer confusion

- ✓ The producer complies with the most current and effective testing methods for quality and authenticity
- ✓ The producer provides a technical basis for 'best before claims'
- ✓ Misleading terms such as pure, light, extra light and lite are not used
- ✓ Describes country or region of origin
- ✓ Processing methods are substantiated

Choosing certified AEVOO ensures you're purchasing the highest quality EVOO.

CHECK THE DATE

Certified Australian Extra Virgin Olive Oils proudly display harvest date and best before dates on their bottles so you can trust that AEVOO is fresh.



Everyday

THE **BENEFITS** OF AUSTRALIAN EXTRA VIRGIN OLIVE OIL

Australian Extra Virgin Olive Oil is the fresh juice of the olive fruit. It has many health and culinary benefits, making it one of the most valuable kitchen ingredients.

THE BENEFITS OF AUSTRALIAN EXTRA VIRGIN OLIVE OIL

Extra Virgin Olive Oil is the fresh juice squeezed from the olive fruit. It's not refined or extracted using chemical processes, making it high in natural antioxidants and healthy fats.

Health*

Australian Extra Virgin Olive Oil (AEVOO) is high in good (monounsaturated) fats and antioxidants, and 100% natural, making it a great tasting ingredient that's also healthy.

Heart Health

Research has shown the high levels of antioxidants in Extra Virgin Olive Oil can help prevent and reduce diseases associated with the heart.

Weight Control

Evidence shows that when Extra Virgin Olive Oil is used as part of a Mediterranean diet, it is associated with lower body weight.

Anti-inflammatory

AEVOO contains a substance called oleocanthal, which has anti-inflammatory properties.

AEVOO is high in antioxidants, adding to its flavour, versatility, health benefits and cooking stability.



Quality

Modern production methods in the Australian industry means Australian Extra Virgin Olive Oils are among the best in the world, and there is an abundance of high-quality Extra Virgin Olive Oils available.

With consumers demanding higher quality ingredients and increasingly wanting to understand the origins of the food they eat, AEVOO is a fresh, quality and local ingredient you can stand behind.



Certified Australian growers display harvest date and best before dates. In most cases, AEVOO goes from the tree to table within months. This freshness means you'll be cooking with a premium quality ingredient.

AEVOO is the pure expression of Australia's highest quality olives, and nothing more. No chemicals, preservatives or blends.

Versatility and Flavour

The modern Australian olive industry has hand-selected a wide range of high-quality olive varieties from around the world, providing Australian chefs and consumers with an unparalleled range of flavours and styles suitable for a range of different purposes.

Common olive varieties planted in Australia include Arbequina, Barnea, Coratina, Corregiola, Frantoio, Koroneiki, Leccino and Picual.

EXTRA VIRGIN OLIVE OIL

The highest grade and healthiest cooking oil. No chemicals, preservatives or blends.

OLIVE OIL
(Also known as Extra Light Olive Oil)

A refined oil that is subject to chemical processing.

REFINED OILS
(Many vegetable oils such as sunflower and canola)

Oils that are refined using chemical processes.

* NOTES:

- Dinu M, Pagliai G, Casini A et al. Mediterranean diet and multiple health outcomes: an umbrella review of meta-analyses of observational studies and randomised trials. Eur J Clin Nutr. 2017;27(1):doi:10.1038/ejcn.2017.58.
- Sofi F, Abbate R, Gensini G et al. Accruing evidence on benefits of adherence to the Mediterranean diet on health: an updated systematic review and meta-analysis. Am J Clin Nutr. 2010;92(5):1189-96.
- Estruch R, Ros E, Sala-Salvao J, et al. Primary prevention of cardiovascular disease with a Mediterranean diet supplemented with Extra Virgin Olive Oil or Nuts. N Engl J Med. 2018;378(25):e34(1-14).

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For those who relish the delicious full flavour of olive oil, Robust AEVOO is the way to go! Perfect for roast meats and vegetables, or for generously drizzling on salads, and a welcome addition to stews, casseroles and marinades.

AEVOO is a versatile oil with flavour profiles to suit any cuisine or dish – sweet or savoury.

Everyday

While the primary method of education for these audiences was via modules (including the videos produced as part of the project) delivered through TAFE/culinary school curriculum, a secondary method of awareness and education was through targeting these audiences through mainstream media channels.

FULLER's approach to Facebook distribution was to target trainee chefs (attending TAFE was also included as a targeting option) and established chefs utilising a budget of \$1500. A total of six advertisements (two per video based around the two recipes in each video) were produced and promoted as part of the campaign.

The campaign was optimised for the lowest possible cost per video view.

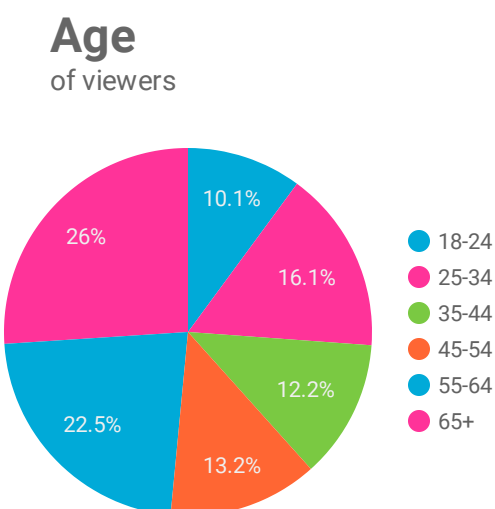
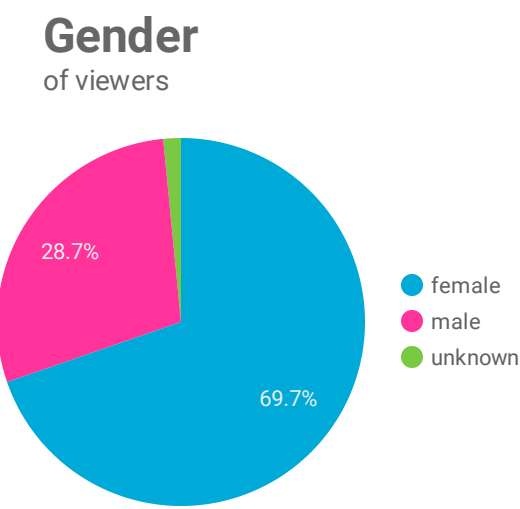
Results for the campaign were impressive:

- The campaign had total impressions of 270,537 and reached 46,528 people, of which approximately 85% (39,605) viewed the videos for at least 10 seconds. This is an outstanding result and shows that people targeted by the campaign were interested in the subject matter.
- The cost per ten-second video view was an outstanding \$0.04 per view.
- In addition, 288 clicks to the Australian Extra Virgin website occurred – a bonus given the campaign wasn't configured for website visits.
- The best performing advertisement was one featuring Nicky Riemer, which gained 12,153 ten-second video views and 83 website clicks.

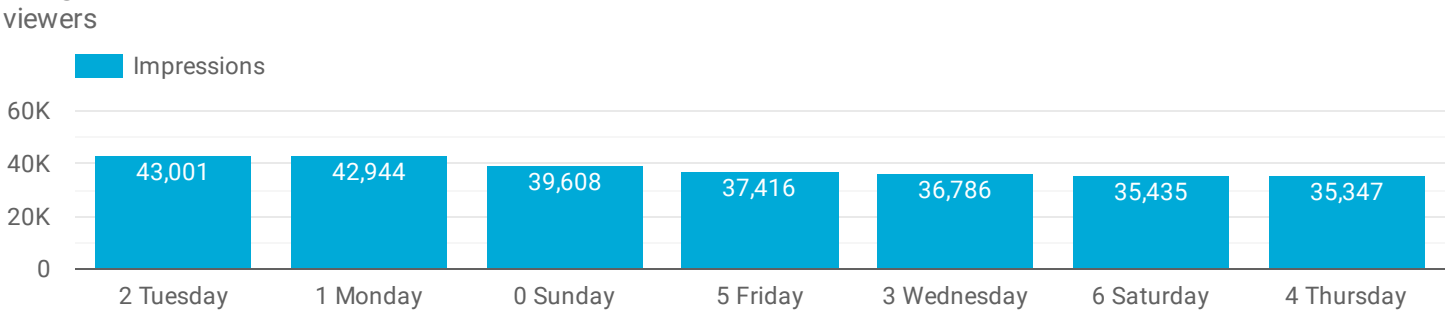
Further details on campaign performance are outlined in the graphs, tables and visuals below.

Key:
Impression = one instance of a person seeing the ad
Reach = individuals who have seen the ad

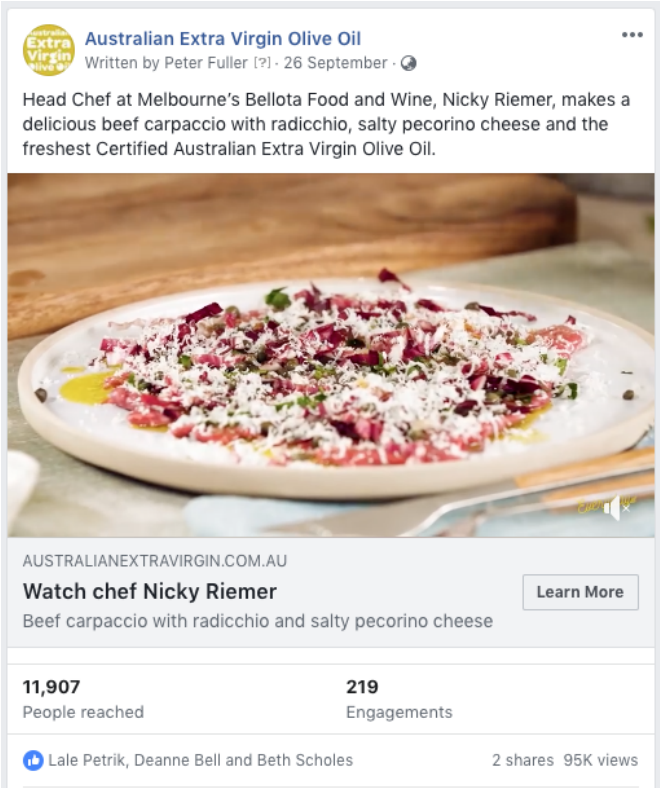
Facebook Campaign Performance



Day of the week



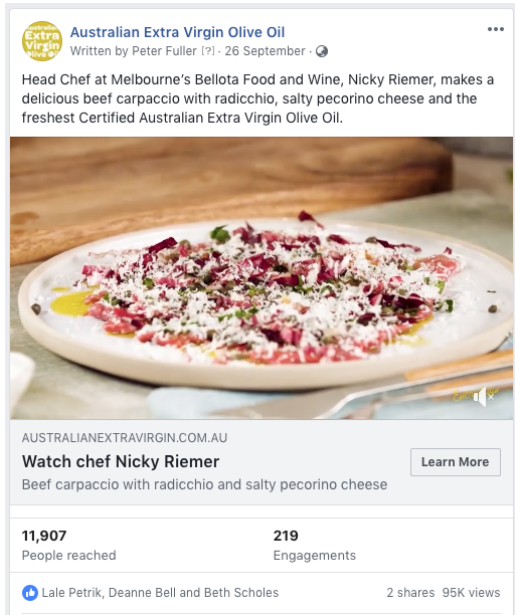
Best performing Ad



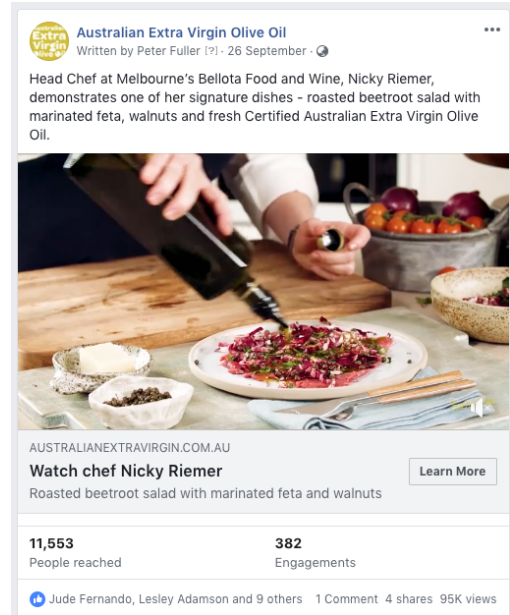
Individual ad performance

[illegible]

Nicky Riemer Advert 1



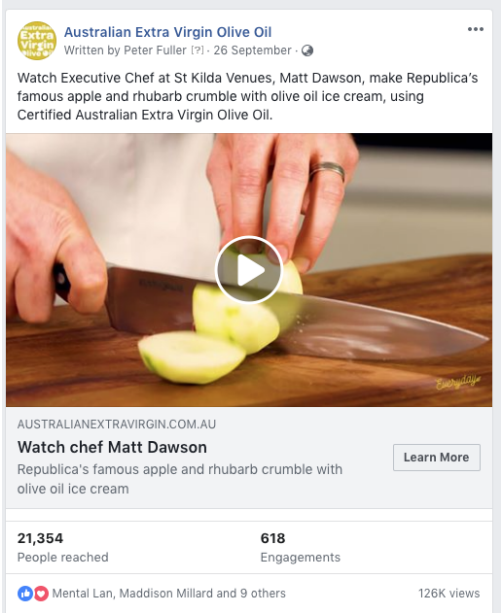
Nicky Riemer Advert 2



Matt Dawson Advert 1



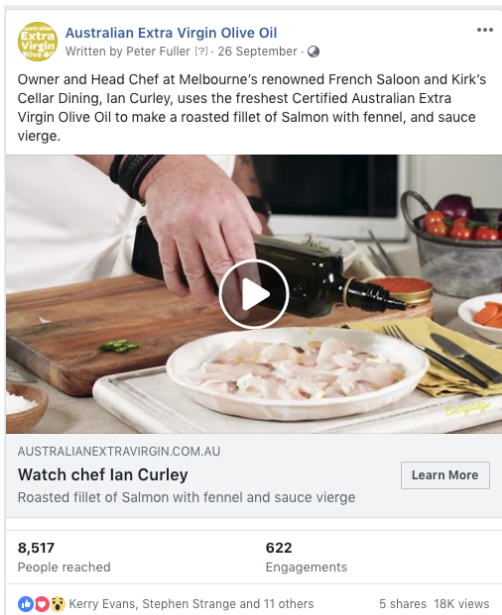
Matt Dawson Advert 2



Ian Curley Advert 1



Ian Curley Advert 2



OLIVE OIL FOOD SERVICE PROGRAM SUMMARY REPORT

OL16004

BACKGROUND

A significant opportunity was identified by Hort Innovation to better inform stakeholders in the food service sector about the specific attributes, properties, benefits and uses of Australian extra virgin olive oil (AEVOO). This is due to a profound lack of knowledge and misconceptions in the Australian food sector about the benefits of using and consuming AEVOO over imported or alternative products. Lack of knowledge includes how the product is produced, variety of taste profiles, health benefits, storage and use in cooking and food preparation.

The overall outcomes of this project aimed to meet Hort Innovation's Strategy 2.3 a desire to ensure key information about the product is clearly and widely communicated to industry and pipeline customers through "Education of customers, especially chefs and the food service industry, about the health benefits of olive oil and how to cook with Australian extra virgin olive oil".

AIM

- To educate and increase the knowledge of AEVOO with student chefs in Victoria and New South Wales (NSW).

TIMELINE

- 2 year project (May 2017 - May 2019)

TARGET GROUP

- Student chefs within their learning environment (i.e. TAFE colleges)
- Established chefs working in food service

METHODOLOGY

Nutrition Australia undertook the following project methodology:

- Year 1 - Research and scope food service industry use of olive oil including barriers and drivers plus development of educational resources (videos and factsheets).
- Year 2 - Disseminate educational resources to communicate messages to culinary and or hospitality students at TAFE colleges, in Victoria and NSW. Conduct monitoring and evaluation to measure project performance and effectiveness.

KEY ACHIEVEMENTS

RESEARCH

A variety of research methods were used including conducting a literature review, desktop research and in-depth interviews with key stakeholders. The research findings were summarised into three reports:

- 1) Stakeholder interview report – insight into usage patterns plus purchase and consumption drivers of the food service industry in relation to AEVOO.
- 2) Foodservice insights report – summary of food service sector trends and AEVOO competitor products.
- 3) Literature review – summary of the evidence on benefits, properties and attributes of EVOO and AEVOO.

This research was used to inform a SWOT analysis and subsequent development of key messages articulated in a detailed communications and engagement plan outlining the proposed education program for trainee chefs. The key messages promoted AEVOO and its versatility, quality, freshness, safety, health, value, flavour and provenance.

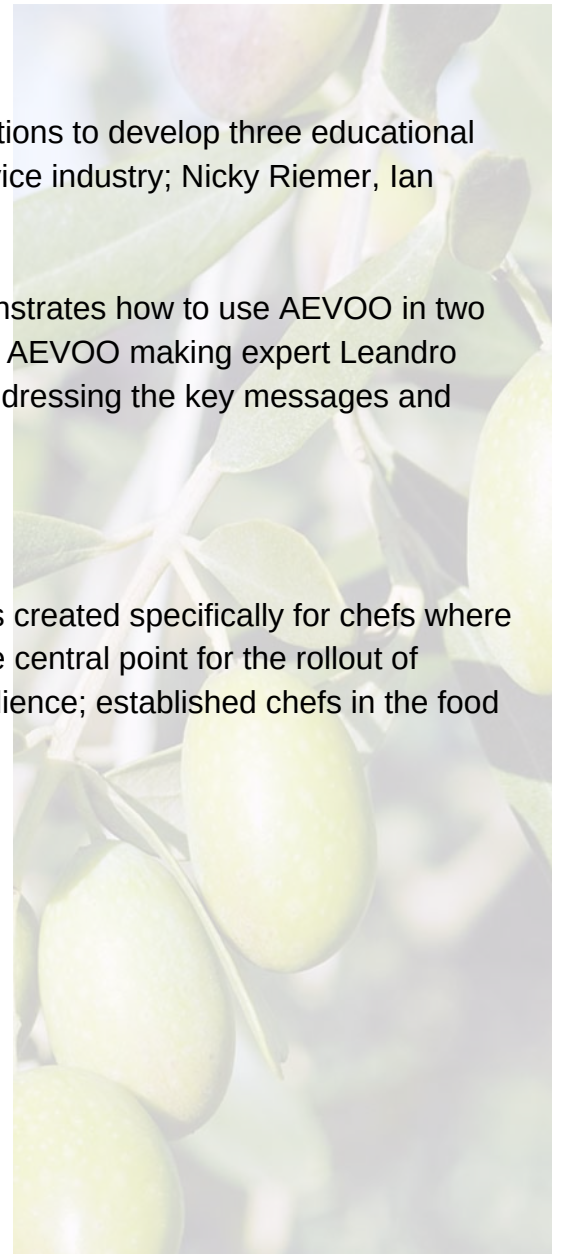
EDUCATION RESOURCES

Nutrition Australia contracted FULLER Brand and Communications to develop three educational videos that highlighted three established chefs in the food service industry; Nicky Riemer, Ian Curley and Matt Dawson.

In the videos each chef talks about their career journey, demonstrates how to use AEVOO in two recipes and talks about why they use AEVOO in their cooking. AEVOO making expert Leandro Ravetti discusses the technical aspects of AEVOO, thereby addressing the key messages and adding to the educational component of the videos.

WEBSITE

A webpage on the *Australian everyday* consumer website was created specifically for chefs where the videos and factsheets are now hosted. This webpage is the central point for the rollout of communication strategies to the project's secondary target audience; established chefs in the food service industry.



KEY ACHIEVEMENTS CONTINUED

Three factsheets were also developed which complement and summarise the key messages from each video:

- 1) In the kitchen – summarising how to cook with AEVOO, myth busting and the truth about smoke point.
- 2) Selecting high-quality EVOO – characteristics of a quality EVOO and the Australian Olive industry's code of practice, OliveCare®.
- 3) AEVOO benefits – overview of health benefits, quality, versatility and flavour.



ROLLOUT IN TAFE COLLEGES

Throughout the lifespan of the project the team recruited and engaged with a total of six TAFE colleges to take part in the project:

VIC - Holmesglen Institute, Sunraysia TAFE and William Angliss Institute

NSW - Albury TAFE, Ryde TAFE and Ultimo TAFE

To ensure longevity of the project we encouraged TAFE colleges to embed the resources within their curriculum so that trainee chefs would have access to them in future. TAFE teachers were also invited to showcase the videos within their classes.

SOCIAL MEDIA PROMOTION

A month long Facebook social media campaign was carried out by FULLER Brand and Communications in October 2018. Results for the campaign were impressive and reached 46,528 people. In addition 288 clicks to the *Australian Everyday* website occurred.

EVALUATION

Monitoring data was collected via the distribution of pre-test surveys to trainee chefs directly after watching the videos in class. The survey results found that an average of 49% of respondents reported their awareness of the benefits and attributes of AEVOO were “poor” or “fair” before watching the videos. This shifted to 92% of respondents reporting their awareness of the benefits and attributes of AEVOO were “good” or “excellent” after watching the videos.

When measuring the students’ confidence to use AEVOO in a variety of ways (cooking, frying, sweet/savoury dishes, dressings), the survey results found an average of 46% of respondents reported they were “not confident at all” or “somewhat confident” to use AEVOO before watching the videos. This shifted to an average of 89% of respondents report they were “confident” or “very confident” to use AEVOO after watching the videos.

The intermediate outcome of improved knowledge and confidence of trainee chefs/cooks at participating institutes about the attributes, benefits and uses of AEVOO was successfully achieved.

RECOMMENDATIONS

Nutrition Australia's recommendations for future industry investment include:

- 1) Supplement the educational resources with practical activities for trainee chefs including grove tours, tastings in class and running competitions.
- 2) Explore partnership opportunities with resource providers (e.g. Australian Training Products) and the food service industry (e.g. Restaurant and Catering Australia).
- 3) More social media promotion and creating shorter versions of the videos.
- 4) Marketing and promotion of AEVOO through food service distributors.
- 5) Promotion of AEVOO at food service trade exhibitions (e.g. Food Service Australia).
- 6) Include content in food service magazines (Gourmet Traveller and Epicure).

USING THE EDUCATION RESOURCES IN YOUR BUSINESS

Whilst primarily targeted at trainee chefs, upon request of the Olive industry we modified the education resources, particularly the factsheets, to be used by the industry for business development. The factsheets are a useful marketing tool for industry when engaging with new customers or clients to promote the benefits, attributes and uses of AEVOO in a visual and succinct way.

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Olive Oil Food Service Program

Presented by: Aranya Changkaoprom

BFoodSc&Nutr, GCertHumNutr, RNutr.

Project Coordinator

Nutrition Australia Vic Division



Nutrition Australia



- Website: 2.5 million hits per year
- Facebook: 22,500 followers
- Twitter: 11,400 Twitter fans
- Reach: 4.2 million Australians



**THE TRUSTED
NATIONAL LEADER
IN NUTRITION EDUCATION**

Overview

- About the project
- Key achievements
- Education resources
- TAFE engagement
- Evaluation findings
- Future recommendations



Olive Oil Food Service Program

- 2 year project
(May 2017 – May 2019)
- **Aim:** Increase awareness of the benefits, attributes and uses of Australian extra virgin olive oil among trainee chefs at culinary institutions



Objectives: Year 1

Research & development

- Food service industry research:
 - Literature review - benefits of Australian EVOO
 - Desktop research – usage patterns and competitor products
 - Stakeholder interviews – barriers and drivers
- Key messages developed
- Communications and engagement plan
- Education program:
 - Videos and factsheets



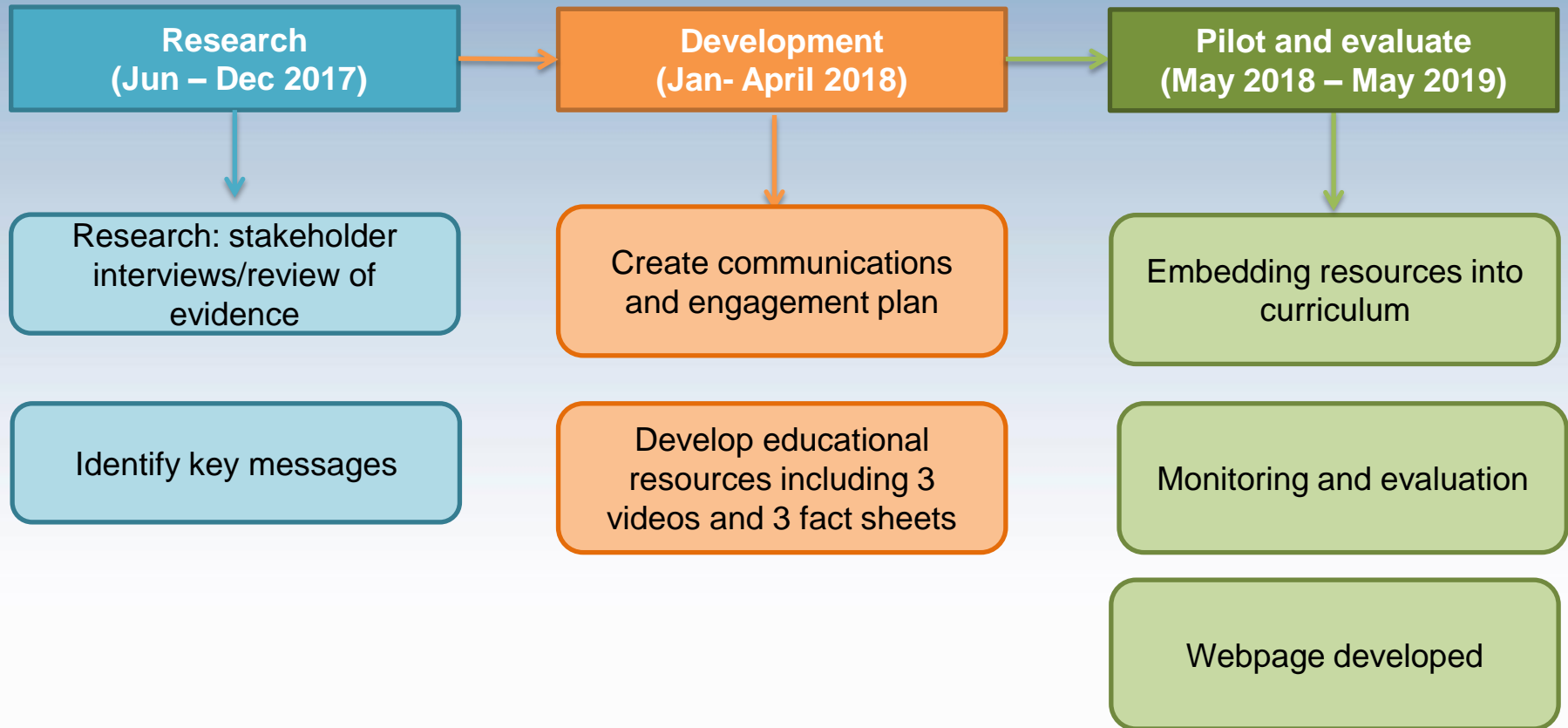
Objectives: Year 2

Implementation & evaluation

- Implement and evaluate education program for trainee chefs
- Summary report and webinar for growers



Project timeline



← Engagement with culinary training institutes →

Key achievements

Research

Chef interview findings:

- Chefs value and use Australian EVOO
- Predominantly use cold to '*finish a dish*', add flavour at the end, and in dressings, sauces, marinades
- Rarely used in cooking
- Perception that shouldn't be heated/cooked
- Cost a barrier
- Availability and promotion through suppliers a barrier
- Flavour (may limit versatility)
- Chefs value provenance (a driver to use Australian EVOO)
- Chefs welcome education about Australian EVOO

Education resources

Key messages:

- Versatility
- Quality and freshness
- Safety and health
- Value
- Flavour
- Provenance



Engaged with FULLER Brand and Communications
for resource development

Videos



Factsheets



THE CHEN

With countless health benefits and a range of flavour profiles to suit any type of cooking, Australian Extra Virgin Olive Oil is your perfect kitchen companion.

CHECK THE DATE
Certified Australian Extra Virgin Olive Oils proudly display harvest date and best before dates on their bottles so you can trust that AEVOO is fresh.



Webpage

Australian Extra Virgin Olive Oil

CHEFS

- HOSPITALITY TRADE USAGE -

Australian Extra Virgin Olive Oil (AEVOO) is one of the freshest, highest quality and most versatile food products in the world, making it a valuable ingredient in the kitchens of professional chefs at restaurants, pubs, clubs and cafes around Australia.

From frying to finishing, and everything in between, AEVOO has a flavour profile to suit any dish or type of cooking, meaning it is an all-round performer in the kitchen.


Grown and pressed by Australian growers, AEVOO arrives to the kitchen fresh from the tree. It is a pure expression of Australia's highest quality olives, and nothing more.

No chemicals, preservatives or blends – just 100% the natural juice squeezed from the fruit of the olive.

With Australia having the highest quality standards in the world for olive oil production, and growers proudly displaying harvest and best before dates, professional chefs can be sure they're passing on the safest, healthiest product to their customers.

AEVOO is a premium quality ingredient that helps professional chefs produce the highest standard of food, something customers will keep coming back for.


FACT SHEETS



The Benefits of Australian Extra Virgin Olive Oil
Australian Extra Virgin Olive Oil is the fresh juice of the olive fruit. It has many health and culinary benefits, making it one of the most valuable kitchen ingredients.

DOWNLOAD FACT SHEET

VIDEOS



Access the videos and factsheets on the *Australian Everyday* website:
www.australianextravirgin.com.au/chefs/

Using the resources in your business

- Useful for business development
- Marketing and sales tool
- Provide in-depth information for current, new and future clients/customers

SELECTING HIGH-QUALITY EXTRA VIRGIN OLIVE OIL

Extra Virgin Olive Oil shares some similarities with wine in the diverse range of flavours and styles available.

Like wine, the quality and taste of Extra Virgin Olive Oil are influenced by geographical factors, timing of the harvest and care of the growers and producers.

Unlike wine, Extra Virgin Olive Oil (EVOO) is best when it's fresh—within the first 12 months of harvest, meaning that minimising the time from the tree to table is vital.

The characteristics of quality Extra Virgin Olive Oil

Aroma
High quality and fresh EVOO should smell fresh like cut grass, salad leaves, tropical fruit or vegetables.

Colour
Colour varies greatly with EVOO based on the variety of olive and time of harvest, so has very little to do with the freshness and quality of the oil.

Flavour and texture
A quality Extra Virgin Olive Oil should feel fresh and clean in the mouth. If it leaves an unpleasant, fatty coating on the tongue or mouth, it is old or rancid EVOO. Fresh EVOO may have nutty, fruity, peppery, bitter, rich, strong, buttery or grassy notes.

The mark of quality
Given the high production standards and superior quality and freshness of Australian Extra Virgin Olive Oil (AEVOO), the Australian Olive Industry has developed a code of practice symbol to make it easy for chefs and consumers to identify AEVOO.

When you see the code of practice symbol, it indicates that a producer is the signatory to the Australian code of practice, now known as OliveCare®, meaning:

- The oil is high quality, clean and fresh
- The product is tested each year to ensure it meets a premium standard
- The producer has good grower management practices
- The producer undergoes chemical testing on a regular basis and must also pass an organoleptic (taste and smell) test

Why choose Australian?
Of all the mainstream edible oils, EVOO is the only oil that is not chemically or physically refined and rectified, meaning it is 100% the natural juice squeezed from the fruit of the olive.

Being such a fresh and natural product, it does deteriorate with age. Therefore, carefully selecting EVOO is vital in order to realise all the flavour and health benefits.

The Australian Standards for EVOO production are some of the toughest in the world, and certified producers must comply with a broad range of requirements, including:

- Labeling clearly outlines whether the oil is natural or refined, and minimises consumer confusion
- The producer complies with the most current and effective testing methods for quality and authenticity
- The producer provides a technical basis for 'best before' claims
- Misleading terms such as pure, light, extra light and etc are not used
- Describes country or region of origin
- Processing methods are substantiated

Choosing certified AEVOO ensures you're purchasing the highest quality EVOO.

AS 5264 - 2011*



Implementation

State	TAFE college	Dissemination	
		Embedded resources	Showcased videos
VIC	Holmesglen	✓	✓
VIC	Sunraysia TAFE		✓
VIC	William Angliss	✓	✓
NSW	Albury TAFE	✓	✓
NSW	Ryde TAFE	✓	✓
NSW	Ultimo TAFE	✓	

Units the resources are embedded within

- Basic methods of cookery
- Appetisers and salads
- Seafood
- Desserts
- Vegetables, fruit, egg and farinaceous dishes
- Special dietary requirements
- Regional cuisine



Evaluation

Purpose: The aim of the evaluation was to evaluate the performance and effectiveness of the Olive Oil Food Service program using a mixed-methods approach.

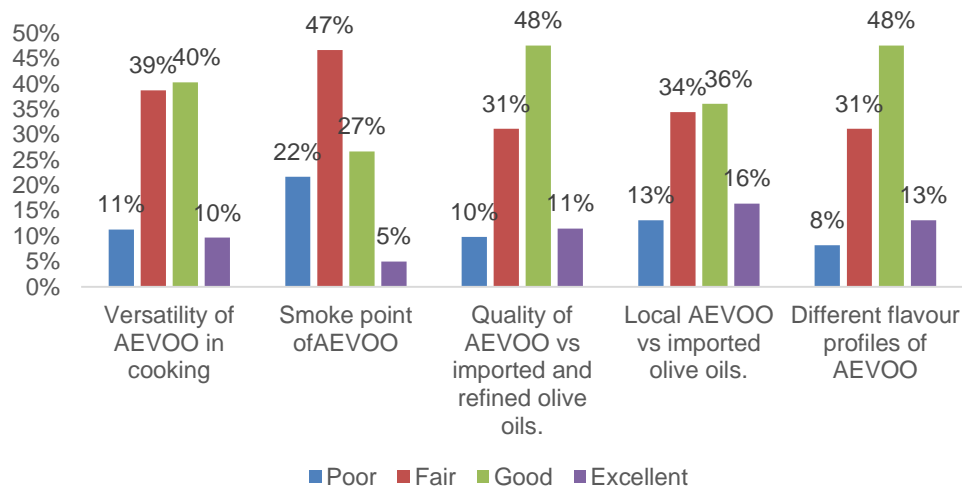
Data collection methods:

- Quantitative – retrospective surveys with students
- Qualitative – phone interviews with teachers

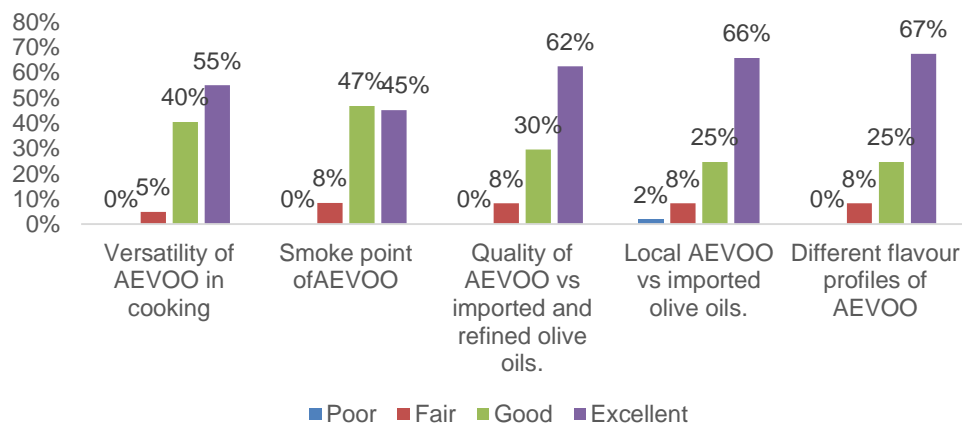


Evaluation survey results

Awareness of AEVOO: before

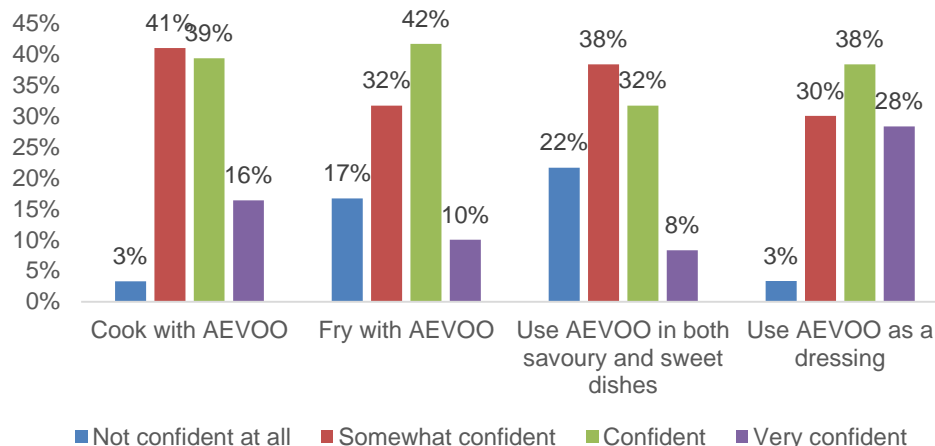


Awareness of AEVOO: after

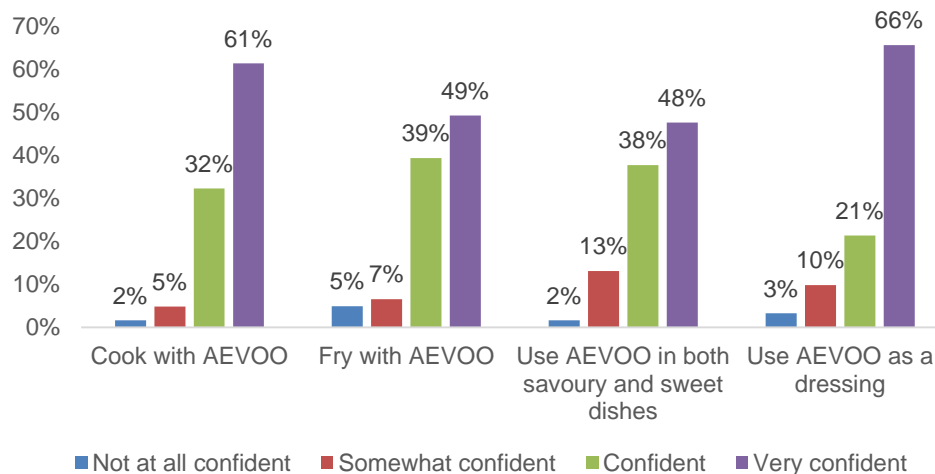


Evaluation survey results

Confidence to use AEVOO: Before



Confidence to use AEVOO: After



Evaluation – teacher feedback

Overall:

- Teachers found the videos “informative”, “relevant” and “engaging”
- Key messages particularly around versatility, flavour, safety and smoke point were “communicated quite well”

Potential impact on future practice:

- One teacher proposed it will depend on where they work
- Another proposed not much would change
- Cost was also noted by the teachers as a barrier to use

Improvements for future:

- Overall the teachers suggestions were around supplementing the resources with a practical component.

Recommendations

Activities with trainee chefs:

- Grove tours
- Competitions
- Tastings



Partnership opportunities:

- Resource providers
- Restaurant and Catering Australia

Social media



Recommendations

Other future promotional opportunities:

- Trade exhibitions (e.g. Foodservice Australia)
- Marketing of AEVOO through foodservice distributors
- Publications (e.g. Gourmet Traveller, GoodFood or Epicure in The Age)

GOURMET
TRAVELLER

 goodfood



Thank you

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