

# **SFF Project Completion Template**

Project Title: Increasing the market share for New Zealand olive oil

Project Number: 404831

Date of Report: 7 October 2019

This information from Sections 2 – 5 and Section 11 will be published on the Ministry for Primary Industries (MPI) website unless you advise us otherwise.

# 1. Milestone Summary Table

Milestone	Milestone	Completion Date		Percent
Number	[As per SFF contract schedule]	Original	Actual	Complete
M01	Project startup	31/07/16	28/07/16	100%
M02	First Conference presentation	30/11/26	26/10/16	100%
M03	First Focus Grove visits	30/11/16	24/12/16	100%
M04	First Regional Field Days	30/11/16	24/11/16	100%
M05	Second Focus Grove Visits	01/03/17	04/04/17	100%
M06	Second Regional Field Days	01/03/17	04/04/17	100%
M06A	Mid Project Evaluation Sheet	31/07/17	02/03/18	100%
M07	Third Focus Grove Visits	30/09/17	13/11/17	100%
M08	Second Conference Presentation	31/10/17	13/11/17	100%
M09	Third Regional Field Days	31/10/17	13/11/17	100%
M10	Fourth Focus Grove Visits	01/03/18	20/04/18	100%
M11	Interim Status Report	30/09/18	17/10/18	100%
M12	Final Conference Presentation	31/10/18	17/10/18	100%
M14	Fifth Focus Grove Visits	31/10/18	21/10/18	100%
M15	Regional Field Days	31/10/18	21/10/18	100%
M16	Sixth Focus Grove Visits	31/03/19	29/03/19	100%
M17	Regional Field Days	31/03/19	29/03/19	100%
M18	Final Review and Report	31/10/19	7/10/19	100%

### 2. Project Objectives

The key objective was to increase the market share for New Zealand olive oil by increasing grove production from less than 10kg per tree per annum to 15kg. Specifically as follows.

- Understand best practice in relation to key aspects of olive grove management in NZ
- 2. Measure and analyse olive grove practices that will lead to better decision making, improved productivity and profitability and industry wide knowledge
- 3. Establish reliable, consistent and accurate information that will be available to current and future olive growers
- 4. Increase table olive production
- 5. Increase export potential

Because the project received additional industry funding this enabled the addition of a fifth Focus Grove to the four approved in the project. This was in Northland.

In 2017 weather events resulted in 40% of olive groves having no harvest. In order to prove the project methodologies it was apparent that the project would need to be extended by 12 months. A project extension was approved to extend the project to October 2019.

#### 3. Approach

(What did you do – how did you go about it?)

- The services of two expert consultants were contracted who had demonstrated expertise in successfully researching and implementing strategies for improving orchard production. These experts visited the Focus Groves and provided advice on methodologies to be employed, monitored and reviewed outcomes.
- 2. Five focus groves were established in each of the main regions. These groves were responsible for implementing and trialling new approaches, measuring outcomes and hosting Field Days to share their experiences.
- 3. Field Days were held twice annually to share the knowledge, demonstrate application and review the outcomes.
- 4. Reports were produced after each Field Day to detail the strategies trialled, results and future recommendations. This enabled broad communications which could be used by the industry, other sectors with similar issues, for researchers and as a basis for media articles.
- 5. Four Fact sheets on key findings were issued as soon as successful strategies were identified.
- 6. Project synopsis were presented at Olives NZ Conferences and were available to be used at other conferences, nationally and internationally.

#### 4. What were the main findings from this project?

It has been possible to increase harvest tonnage from less than 10kg per tree to 25kg and also even out biennial bearing.

A proactive and intensive spraying programme is required to supress the main diseases in NZ olive groves, namely Cercospora and Peacock Spot. That is spraying with Manzate every 21 days and again before and after rainfall of more than 20mm.

A structured canopy management approach is required; pruning after harvest and then a secondary pruning after flowering. This is to open up the canopy for effective spray and sun penetration and also for efficient harvesting. Trees need to be reduced and kept to a manageable height.

A new disease has been identified – Anthracnose.

# 5. What difference has this project made to your group / community of interest / industry?

Grove production at the Focus Groves and others following the same methodologies has resulted in:

- 1. almost total suppression of the main diseases Cercospora and Peacock Spot
- 2. grove production has increased from less than 10kg per annum per tree to an average of 25kg per tree
- 3. biennial bearing has been evened out ensuring a consistent supply.

The research and outcomes have been shared internationally.

## 6. If you did the project again what would you do differently?

The spraying solution requires the use of a commercial orchard sprayer. This financial investment is beyond the capability of smaller grove owners. There is a need for collaboration of these groves to address this or an alternative approach is required.

# 7. Is there anything the SFF could have done differently?

Nothing comes to mind

# 8. Is there anything that you have learnt that would be useful for new project teams?

Project management was significantly under estimated. Realistically this required 52 days per annum, including attending all of the Focus Grove visits and field days.

#### 9. Where to from here – what are the next steps?

The "Increasing the Market Share for New Zealand Olive Oil" project has been hugely successful in increasing productivity and dealing with the most common diseases. However, demand for NZ EVOO continues to exceed current supply capability. Accordingly there has been consistent feedback from the industry that the momentum in increasing productivity is continued by looking at other aspects of best practice in grove management. It is also critical to ensure there is no backtracking of what has been successful by continuing to monitor and respond to the impact and stress of increased production.

A number of growers would also like an alternative to the intensive spraying programme implemented/employed in the previous project. The option of including other and organic approaches has been suggested as these may be more easily implemented by smaller groves, also requiring less capital expenditure.

This feedback has led to drafting a new project with the following aims:

- 1. Understand the nutrient requirements of olive trees in New Zealand given increased production and the potential to increase production further
- Determine changes in olive tree canopy and crop load management for sustaining annual yields under increased productivity from best practice grove management
- 3. Benchmark the effectiveness and sustainability of alternate and more organic approaches to olive grove management
- 4. Establish an effective regime to manage diseases in olive groves, particularly Anthracnose a recently identified disease causing significant yield loss from two causes blossom rot reducing fruit set in spring and rots in mature fruit causing crop loss at harvest.

### 10. Financial summary

Provide a brief comment as to whether the project was completed on budget; whether there is any grant money left unspent. There is a separate Financial Summary sheet you are also required to submit. Please ask your Project Advisor for this.

The project ran over budget by:

\$10.082 Cash – covered by industry contributions

\$23,420 In Kind – covered by Olives New Zealand

Some project contributors reneged on their commitments. The final outcome was neutral as the overrun was covered by additional contributions.

## 11. List and attach any major outputs from the project.

There were:

- 8 Project Reports
- 4 Fact Sheets
- 3 Conference Presentations

These are available on our website https://www.olivesnz.org.nz/events/

These have been previously provided to SFF as part of milestone reporting.

## **Report Confirmation**

Name Gayle Sheridan	Confirmation		Date
[Project Manager]			7/10/2019
Gayle Sheridan	I hereby confirm the above information is true and correct:	✓	

#### **Submission Notes:**

1. **Project Completion forms should be sent electronically** to your Project Adviser or attached to your final milestone in the Portal. Also attach electronic versions of any resources developed.

Please ensure you put your project number in the e-mail's subject line: e.g., 400000 Final report 2011.

2. **Hardcopies of any project resources** developed should be **posted** to your Project Adviser at the following address:

#### **Investment Programmes**

Level 17, Pastoral House, 25 The Terrace, Wellington 6140, New Zealand

# **Final Harvest Data Report**

The Final Harvest Data Report including the 2019 harvest figures is below. It is apparent that all Focus Groves, with the exception of Canterbury, have made good progress in increasing crop loads and lessening biennial harvest problems. However crop loads can be adversely affected by birds, which poses a bit of a challenge to grove owners.

#### Harvest Data Comparisons – Frantoio kg per tree Compared to regional data/control group (Incl. Focus Groves)

Participant	2014	2015	2016	2017	2018	2019
Ngatarawa	22.8	21.7	21.1	10.6	28	18
Hawke's Bay	3.6	10.2	10.3	n/a	22	11
Leafyridge	15.2	Frosted	19.1	5.7	25.4	8 <sup>1</sup>
Wairarapa	6.5	5	10.2	6.9	15.4	7
Kakariki	11	14	12	14.5	15	19
Nelson	12.1	8.9	11	10.9	8.5	11
Terrace Edge	1.9	1.9	16.1	2.7	1	12
Canterbury	6	1.9	10.3	1.3	6.3	5
Olives on the Hill	8.5	-	21	7.51	23.2	12
Northland	7.3	3	10.4	6.8	12.5	7

<sup>&</sup>lt;sup>1</sup> Leafyridge undertook a heavy pruning of these trees in line with the Project Consultant's recommendation. This loss of production was compounded by birds which cleaned out about half of these trees.

Olives on the Hill also undertook a heavy pruning of their Focus Grove block late in 2018.