CERTIFICATION – FUTURE DIRECTION

REPORT TO THE OLIVES NEW ZEALAND EXECUTIVE

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INTRODUCTION

The definition of Certification for the context of this report is a quality assurance process that establishes whether an olive oil meets the criteria to be classified as Extra Virgin Olive Oil. In relation to Olives New Zealand (ONZ), Certification is the requirement for an oil to carry the OliveMark. Brand owners who buy in olive oil from other growers will also often use Certification as being their criteria for purchase.

Olives New Zealand introduced its certification programme in 2004. Certification ran very successfully until 2008 when, following a change in administration, established protocols and procedures were changed.

The purpose of Certification is:

1. To provide producers and marketers of New Zealand olive oil with a "standard" method for establishing that their oil is of extra virgin quality using sensory criteria, as defined by the International Olive Council ("IOC"). The oil must also meet the higher chemical standards established by Olives New Zealand (ONZ) for Free Fatty Acids (FFA) and Peroxide Value (PV).

2. To provide consumers with assurance that the oil they purchase is in fact of New Zealand origin and of extra virgin quality.

3. To provide producers and marketers who meet the certification standard with a means of distinguishing their products in the marketplace by the use of an ONZ Seal., i.e. the OliveMark.

It is also a requirement of entry to the New Zealand Olive Oil Awards that the oil be certified to Olives New Zealand standards and be eligible for and carry the OliveMark. The Certification program is available to members of Olives New Zealand and has been available to non-members at a differentiated rate.

The Certification program was last reported on to the executive in 2008[1].

The organization is now at a point where a change to running its own Certification program could be contemplated by the Executive. This report has been requested by the President and serves to overview the current scenario, look at drivers for change, detail an Australia option, consider the pros and cons of this option, summarise and make recommendations to the Executive.

This report does not encompass any review of the current chemical analysis requirements, nor other requirements such as labeling, packaging, etc.

[1] April 2008 "ONZ Sensory Panel" - report by Margaret Edwards

CURRENT SCENARIO

The current Certification program comprises both chemical and sensory analysis. For this, the producer is required to prepare 2 x 50ml and 2 x 200ml (minimum) samples of oil following standard procedures.

STAGE ONE – CHEMICAL ANALYSIS AND COMPLIANCE

Chemical analysis is currently carried out by AsureQuality and requires the submission of one of the 50ml oil samples, a submission form and payment directly to AsureQuality. Once testing is complete, a chemical analysis report is sent from AsureQuality to the submitter.

Note that AsureQuality has not applied for IOC recognition and therefore does not hold IOC chemical analysis laboratory recognition.

The ONZ Certification standard requires the oil to contain less than zero point five percent (0.5%) FFA declared as oleic acid and have a PV of less than 15 milli-equivalents of peroxide per kilogram of olive oil.

Provided that the oil meets the ONZ chemical analysis requirements, Stage Two can be completed.

STAGE TWO – SENSORY ANALYSIS

(Refer to Plant and Food Research Procedures and Protocols – document available from Executive Officer.)

The sensory criteria, training, test and tasting procedures are set by the International Olive Council (IOC) and involve 'blind tasting' by a panel trained to IOC criteria. The current panel is recognized by IOC on an annual basis and the status of the panel must be confirmed to IOC by the Ministry of Foreign Affairs and Trade, also on an annual basis.

Sensory analysis requires the submission of the three remaining oil samples (2 of not less than 200ml and 1 x 50ml) a completed Declaration of Compliance, a copy of the chemical analysis report and payment. Note that the 50ml sample and one 200ml minimum sample are kept as retention samples under controlled cool conditions at Plant and Food Research for a period of two years. These samples will be used should an issue arise.

The sensory analysis is carried out at Plant and Food Research in Auckland. Plant and Food Research sensory technicians are totally responsible for the running of each certification tasting session. The panel comprises the panel leader and another 11 people trained to meet IOC criteria. There is an annual external assessment of the panel by IOC examination. The panel leader is Margaret Edwards, who has acted in this capacity since 2004. Her responsibilities, apart from the scientific integrity of the panel, are to train existing panelists, screen and train any new panelists and convene the panel for certification and IOC examination tasting sessions. All other functions relating to the evaluation of certification oils are undertaken by Plant and Food Research personnel or the ONZ Executive Officer.

<u>Sensory Panel Procedures</u>
At each certification session, 10 oils are assessed under totally blind conditions.
For sensory evaluation of any food product to have scientific validity, standard procedures must be followed and the risk of errors minimised. Therefore the criteria are the:

- use of controlled conditions for undertaking sensory evaluation;
- standardisation of techniques;
- standardisation of sample preparation and presentation;
- objectivity of panel members.

Oils that meet the chemical analysis criteria are submitted for sensory evaluation and are assessed following standard scientific procedures and the criteria set down by the IOC. When received at Plant & Food Research, bottles are masked and given a dedicated random number by the independent sensory technician (not a member of the panel) who is the only person to have access to producer information. Samples are tasted 'blind.' They are poured into coded, standard blue glasses by the technician, covered and warmed to 28^{O}C + or - 2 ^{O}C before being presented to the panelists. Evaluation is carried out in booths so that there is no communication amongst panelists. Each booth is equipped with a computer. Panelists enter their results into the computer. The IOC method for reporting is used. A maximum of five oils are evaluated in a flight and no more than two flights of oils are assessed in a session.

Procedure for Oils that fail Sensory Analysis

For oils to pass or fail certification there must be 100% agreement amongst the panelists on the status of the oils. Therefore, at the completion of the session, panelists come together to review the results using the computer report. This shows the oils' code number, variety and the broad region. The region is included so that any climatic influences are noted. Panelists must justify their reason if they fail an oil. At this stage the oil will be re-tasted and compared with a sample taken from the second bottle of the producer's oil. If there is still not 100% agreement, the technician will be asked to recode the oil and slot it into the next session. If after re-tasting in a second panel, there is still not agreement the oil will be sent to an overseas IOC recognised panel for external review and their results will be binding. Panelists try extremely hard to pass the oils submitted but they are mindful of the fact that oils passed must retain their extra virgin status for the full two years of the certification period.

NOTIFICATION PROCEDURE

The producer is notified of the outcome of the sensory analysis by Olives New Zealand.

When the certification programme was set up in 2004, the need to ensure continuous quality improvement of NZ oils was recognised. Therefore a reporting procedure to producers whose oil had failed to meet the certification standard was instituted. This required the panel leader to telephone the producer on the day of the analysis to inform them of the result and more importantly to discuss with them what defect/s the panel had found. Then, through discussion, ascertain the cause of the defect. By understanding what had caused the oil to fail it was hoped the producer would ensure the mistake would not be made again. A protocol also existed for external review of oils that failed should the producer request it. This external review was that a sample of oil taken from the retention sample held at Plant and Food Research would be sent to an IOC recognised panel for a second opinion. The decision of this panel would be binding.

From 2004 until 2008 it would appear that no complaints about the certification process were received.

In 2008 the protocols and procedures regarding the reporting to producers whose oils did not meet the standard were changed. From 2009, the Executive Officer became responsible for notifying producers when their oil failed to meet the sensory analysis. This was done by a variety of means; mailed letter, emailed letter or telephone. Producers were offered the opportunity to discuss their failed result with the panel leader. In 2011 two producers expressed dissatisfaction at their results but

only one of these took up the opportunity to discuss the panel's findings and the possible cause for failure with the panel leader. This has led to ongoing dissatisfaction by the second producer and is now also impacting the other.

The 2011 experience affirms the need for adhering to set procedures and protocols for dealing with failed results for sensory analysis and ensuring they are implemented correctly.

CERTIFICATION COSTS

For financial members of Olives New Zealand, the cost for Certification is $42.20 to AsureQuality and $200 to Olives New Zealand. There are additional costs if a person wishes to then apply for an OliveMark licence agreement and for the OliveMarks themselves. These additional costs are outside of the scope of this report.

In 2011 the cost to Olives New Zealand for running the Certification program was $19,455 and the income $19,695. The cost relates directly to Plant and Food Research who charge on a per panel basis for certification panels as well as IOC examination panels.

Note: Under IOC regulations, neither panel members nor the panel leader may receive payment of money for their work.

DRIVERS FOR CHANGE

FUTURE USE OF VENUE

Currently Certification is carried out in an approved laboratory at Plant and Food Research in Auckland. This organization also stores the retention samples. Plant and Food Research has advised that this arrangement has a finite life and will not be available after 2012. This means that Olives New Zealand must look for another venue that would meet the IOC requirements.

SUCCESSION PLAN

There has been a succession plan in place for the panel leader, Margaret Edwards, since 2006. However, with the relocation overseas of the primary person, the names of two other suitably qualified panelists were put to the then executive and approved. They were approached and agreed to be considered for the position. However, since 2008 no further developments have occurred. This may have been because of the cost associated with gaining the appropriate certificate.

Note: In the past, panel leaders were required by the IOC to hold the "Supervisor of Virgin Olive Oils Tasting Panels" certificate awarded after attending the appropriate week long IOC training course. However, it now appears that it is not mandatory for a panel leader to attend a training course. Rather, an experienced and competent panelist may take on the role on the recommendation of the retiring panel leader who would advise the IOC of the change.

There is a similar issue around succession for panel members, although suitable candidates can be trained in New Zealand by the panel leader given sufficient lead time.

COST

The Certification program is seen as costly by users, and certainly when compared to programs offered overseas. However, as has been detailed previously, Olives New Zealand runs the

Certification on a break-even basis. Because of the current size of the industry, there is no foreseeable way of reducing costs through improving economies of scale.

TIMING CONSTRAINTS

The Certification program has traditionally been offered from mid-May to mid-September. However, because of the small number of oils submitted before June, in 2011 evaluation was commenced in early July. The date for the last panel is set by the timing of the judging for the NZ Olive Oil Awards, which in 2011 were held around two weeks earlier than in past years. Until 2010, following the awards, members had been given another opportunity to certify oils.

While the set dates suit the majority of users, there are always several who do not meet the timetable for a variety of reasons. The timing constraints mean that people who miss the timetable cannot currently have their oil certified and therefore are not eligible to apply to use the OliveMark nor enter the NZ Olive Oil Awards. This has been under the control of ONZ and not the sensory panel.

CHALLENGES AROUND PERCEIVED IMPARTIALITY

Despite there being a rigorous process involving blind tasting, there has been a challenge raised in 2011 about the impartiality of the Panel. The challenge has been raised by an individual whose oils did not pass sensory analysis. That person refused to follow the established procedure because of their perception that there is bias or conflict of interest situation.

AUSTRALIAN ALTERNATIVE

An alternative to continuing with its own Certification program would be to use an overseas service that meets the requirements of IOC. The nearest facility to New Zealand is operated by the Australian Department of Primary Industries (DPI) in New South Wales. This facility is used by the Australia Olive Association, a similar body to Olives New Zealand.

DPI is an ISO accredited facility which offers a large range of tests which include the Chemical and Sensory Analysis required by Olives New Zealand. All of the issues raised above under 'Drivers for Change' would be addressed in using the DPI.

In particular, the facility offers testing all year around and the quoted rate is AUD126.65for a single sample using Near Infrared Spectroscopy[2] or AUD163.85 using 'wet chemistry'. There are small discounts offered for batched samples submission. Additional direct costs would be packaging and freight. The processing time for the chemical analysis is approximately 3 days and for the sensory analysis approximately one week but could be up to three weeks, depending on the time of year. Note that the charges by DPI increase according to the Consumer Price Index, approximately by between 2½% and 3½% annually.

The DPI has a robust Complaints Procedure for the Sensory Analysis involving a different Panel. An applicant pays for the retesting, which is not refunded if the result is the same, or is fully refunded if

[2] For the chemical analysis, Near Infrared Spectroscopy (NIR) is where the sample is machine scanned rather than 'wet chemistry' where samples are analysed using standard IOC methods. This NIR is used for the Australia Olive Association Code of Practice so should meet the requirements of Olives New Zealand. Note that the results are to 1 decimal point only..

a failure is over turned. The DPI usually retains the sample bottles for a period of three months but is prepared to store these for up to 12 months if requested, at no additional cost.

If Olives New Zealand were to use the DPI then it would need to recover other costs such as a handling/administration fee and storage costs for its own retained bottles in New Zealand.

There would be three potential scenarios of using the DPI:

1. A person submits their samples directly to the DPI and then send a copy of their results to Olives New Zealand with their Licence Agreement, sample labels, sample bottles and the appropriate fee.

2. Olives New Zealand acts as the centralized collection point for samples and payment, batches shipments to Australia and then manages dissemination of results, including confirmation that the oil meets Olives New Zealand Certification requirements and is eligible for the OliveMark. People would then submit the Licence Agreement and appropriate payment to Olives New Zealand.

3. The regional groups act as the collection point for their region collecting samples and payment, batches the shipments to Australia and manages dissemination of results, including confirmation that the oil meets Olives New Zealand Certification requirements and is eligible for the OliveMark. People would then submit the Licence Agreement, sample labels and appropriate payment to Olives New Zealand.

PROS AND CONS

The Pros of using the Australian Department of Primary Industries are:

1. Access to a formally established professional testing service that meets the requirements of IOC and is an ISO accredited facility, thus addressing any issues of succession planning and venue.
2. Access to professional testing service at a similar total cost to what is currently being charged; provided the NIR process is acceptable. Otherwise the cost will probably be greater if 'wet chemistry' is required.
3. Less complicated process for members (1 submission to 1 organisation vs. 3 to 3)
4. Access to a professional testing service all year round.
5. Address the challenge of impartiality by using an overseas service with a large pool of potential panel members.
6. Access to additional tests beyond those required by Olives New Zealand.

The Cons of using the Australian Department of Primary Industries are:

1. Removes Olives New Zealand direct control of the Certification process.
2. Potential loss of sensory expertise in New Zealand, particularly for judging at the National Awards. Already there are an extremely limited number of trained people with appropriate tasting expertise prepared to act as judges. Olives New Zealand would need to take over responsibility for maintenance of the sensory panel including training and the annual examinations.
3. Timeliness of process – one month turn around best case.

4. Additional administration for Olives NZ (collating samples, arranging freight, arranging storage of retained samples).
5. No access to panel leader to discuss failed sensory results.
6. Potential for a conflict of interest situation in the future if the Australian Olive Association objected to DPI carrying out testing for a competitor country. Note that at this point Australia Olives has advised that they have no issue with ONZ using DPI.

6. Having an IOC recognised sensory panel has given the New Zealand olive industry considerable credibility in the olive oil world. With the dissolution of the panel this would be lost.

Note: The Olives New Zealand Olive Oil Awards would continue to be run by Olives New Zealand with a judging panel convened by the organization.

NEW ZEALAND ALTERNATIVE

Massey University at Albany is a possible alternative that could be worth exploring. Massey has already established considerable expertise in olive research and their chemistry laboratory is able to carry out a full range of tests. They also have a well-recognised sensory science department that has been the venue for the ONZ Olive Oil Awards on two occasions. Given the number of staff and students, as well as a large local community, it may be relatively easy to attract new people to train as panelists. However, this option would not cover off all of the Drivers for Change.

SUMMARY

Olives New Zealand has traditionally arranged the Certification process primarily as a service for its members but also available at additional cost to non-members. Certification to Olives New Zealand standards is a requirement for use of the OliveMark and for entry into the New Zealand Olive Oil Awards.

There are concerns over the future of the Olives New Zealand Certification program, particularly around the loss of the current venue and succession of the panel leader and panel. There have been other issues raised around the time constraints and cost of the Certification program, and in 2011, the impartiality of sensory panel members by one producer.

Olives New Zealand is in a position to look at a different model for Certification for the future. The one requested for evaluation was the use of the Australian Department of Primary Industries. This would offer the same, plus additional, services than those being offered by Olives New Zealand at potentially the same cost. It would also address the concerns raised above. The Pros of using the Australian Department of Primary Industries strongly outweigh the Cons.

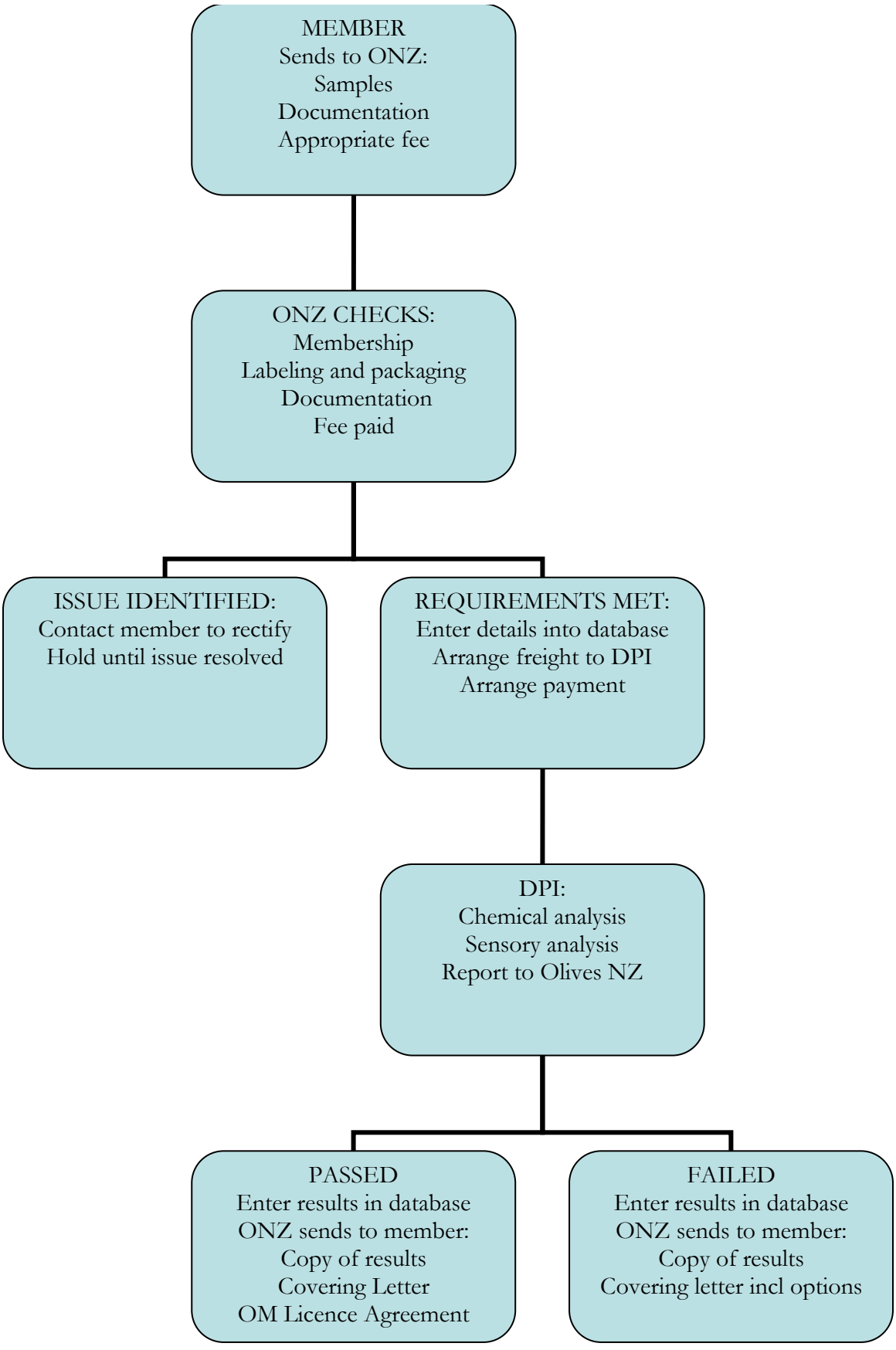
Appendix One shows the Process using the Department of Primary Industries, with centralized administration by Olives New Zealand. Appendix Two shows a Potential Budget using the Department of Primary Industries.

RECOMMENDATIONS

This report recommends:

- Olives New Zealand move to using the Australia Department of Primary Industries Olive Oil Testing Service
- The new testing system is centralised and administered by Olives New Zealand
- The new system be implemented for 2012.

APPENDIX 1 - PROCESS USING DEPARTMENT OF PRIMARY IINDUSTRIES SERVICE



APPENDIX TWO – POTENTIAL BUDGET USING DEPARTMENT OF PRIMARY INDUSTRIES SERVICE

Income				
Quantity	100	120	140	160
Certification Fees @ $242	24,220	29,064	33,908	38,752
Expenses				
DPI Testing				
@ AUD126.65	17,590	21,108	24,626	28,144
Freight	1,150	1,265	1,380	1,610
Packaging	500	500	500	500
Administration	1000	1100	1200	1,400
Storage @$11pw x 2 years	1,144	1,144	1,144	1,144
Miscellaneous*	3,000	3,000	3,000	3,000
Total	24,384	28,117	31,850	35,798
Surplus/Deficit	-$164	$947	$2,058	$2,954

GST Inclusive
Exchange Rate $0.72

* The Miscellaneous allows for currency fluctuations, price increases in NZ services and with DPI (advised as annual), maintenance of an IOC Panel plus travel if appropriate