

## **Eel Assessment – VOF Palingkwekerij Ideaal**

### **Assessment against:**

Component 1: Core requirements  
Component 5: Eel farming

**Completed by**  
Alex Senechal

16<sup>th</sup> January 2019

**FINAL**

### **Introduction**

This document represents the report completed following the 2019 audit carried out under the Sustainable Eel Standard (Version 6.0, June 2018) against Palingkwekerij Ideaal. This assessment has been completed against Components 1 & 5 of the Standard only.

The assessment is of an eel farming business (Palingkwekerij Ideaal PI) based in the southern Netherlands, near to Cuijk. PI buys in and grows on glass eels for restocking and consumption. PI has been operating since 1996 and gradually increased production from 30-40 Tonnes/year to between 200- 250 Tonnes/year of silver eel following its redevelopment in 2011 after a large fire in 2009. It has since 2016 been taken over by the next generation and is now producing between 250-280 Tonnes/year or 130-200g eels with a small stock of larger eels destined for the German market and a Dutch processor.

The farm received on average 850-900kg of glass eels per year with 25%-30% being for restocking and test for consumption. These are entered into the farm in the 4 systems, each with 6 tanks allowing for multiple batches to be received throughout a year when available. This glass eel section also acts as a quarantine area for eels entering the farm. A second section with 28 tanks on a single water system is maintained exclusively for fingerlings. And within a 2<sup>nd</sup> building, 2 systems each with 14 tanks and 12 tanks respectively house the on-grown eels (larger than 60 grams) up to 1.2kg on average.

All tanks are circular and supplied by a 'feed on demand' feeding system. Glass eels are fed cod roe for the first 15 days of development during which time they are slowly weaned on to a crumbled pelleted feed

The site has recently built a small slaughter and processing area with traditional smoking oven in order to produce artisanal smoked eels for local clients.

## 1. The assessment

The assessor was Alex Senechal of Control Union Pesca Ltd, who visited Palingkwekerij Ideaal on the 16<sup>th</sup> January 2019. The visit included a tour of the facility, discussions with one of the owners Gijs Bardeel and a review of paperwork.

## 2. Client Contact Details

<b>Client Contact Name</b>	Gijs Bardeel
<b>Client Address</b>	Noordstratt 23, Wanroy, 5446 XC, The Netherlands
<b>Client Email</b>	<a href="mailto:info@palingkwekerijbardeel.nl">info@palingkwekerijbardeel.nl</a>
<b>Client Phone Number</b>	+485 453855

## 3. Results of the assessment

The outcome of this assessment is as follows;

A responsible score will result in 1, an aspiring score in 0. Score weighting will be taken into consideration for each element.

That PI has scored the following for Component 1: General Requirements and therefore **should** be considered **RESPONSIBLE** under the SEG standard.

<b>Component 1: General Requirements</b>	Auditor's findings	Weighting	Score
1.1 Commitment to Legality	Responsible	1	1
1.2 Contribution to eel conservation projects	Responsible	1	1
1.3 The facility trades in certified responsibly sourced eels	Aspiring	1	0
1.4 Traceability:			
1.4.1 Incoming products, separation and segregation	Aspiring	1	0
1.4.2 Outgoing products	Aspiring	1	0
1.4.3 Record keeping and documentation	Responsible	1	1
1.5 Biosecurity & welfare –			
1.5.	Responsible	1	1
1.5.	Responsible	1	1
Total		8	5/8
Percentage Responsibility Score:		63%	

that PI has scored the following for Component 5: Eel farming and therefore **should** be considered **to be Responsible** under the SEG standard.

<b>Component 5: Eel farming</b>	Auditor's findings	Weighting	Score
5.1 The total mortality rate during the culture is low	Aspiring	2	0
5.2 The fish meal/oil ingredients in the feed come from a responsible source	Aspiring	1	0
5.3 Feed is used as efficiently as possible	Responsible	1	1
5.4 Water Quality	Responsible	1	1
5.5 There are minimal ecological impact from effluent discharge	Responsible	1	1
5.6 Grading, slaughter and transportation are carried out with respect to welfare	Responsible	1	1
5.7 The farm provides eel for restocking	Responsible	2	2
5.8 The farm provides eel for restocking	Responsible	2	2
<b>Total</b>		<b>11</b>	<b>8/11</b>
<b>Percentage Responsibility Score:</b>		<b>73%</b>	

### Summary of assessment and scoring

<b>Component</b>	<b>Aspiring</b>	<b>Responsible</b>
1	3	5
5	3	8
<b>Total</b>	<b>6</b>	<b>13</b>
<b>Total Responsibility Score</b>	<b>13/19</b>	<b>68%</b>

### Recommendations (numbers relevant to standard criteria):

1.3 It is recommended that by the next audit, there is an increase in the quantity of glass eel purchased being from a SEG source by 10% by number, per year.

1.4.2 It is recommended that at the following audit, evidence is provided by the farm to show that accurate batch coding in accordance with the SEG guidelines has been adhered to.

5.1 It is recommended that the farm ensure that all mortality for the farm is recorded daily and that the number and weight of eels is recorded. This will facilitate any future assessment for the calculation of mortality.

5.2 It is recommended that by the next assessment, 100% of the feed supply should be verified to be from sources which meet the requirements of the standard in addition to supplier documents declaring that the ingredients are from a sustainable source.

#### 4. Next Audit

At the completion of the audit the client was assessed against the risk assessment set out in the Methodology. This is set out in the table below.

Question		Performance of the Client at Audit	Yes	No
1	Has the client been part of any external investigation which may be of concern to SEG AND/OR been suspended from any other certification standard?	Enhanced Surveillance		Go to Q2
2	Has the client received a borderline <sup>1</sup> pass for a Component in its previous audit?	Enhanced Surveillance		Go to Q3
3	Does the client only buy and sell product (does not physically handle it?)	Minimum Surveillance		Go to Q4
4	All other scenarios	Standard Surveillance		

	Certification Audit	Year 1	Year 2	Year 3	Year 4 Recertification Audit
Minimum Surveillance	On-Site Audit	Remote Audit	Remote Audit	Remote Audit	On-Site Audit
Standard Surveillance	On-Site Audit	No Audit	On-Site Audit	No Audit	On-Site Audit
Enhanced Surveillance	On-Site Audit	On-Site Audit	On-Site Audit	On-Site Audit	On-Site Audit

As the client has been seen to fall into the Standard Surveillance bracket, the next audit will be due in the January 2021 (in 2 years' time) and shall be an on-site audit.

<sup>1</sup> A borderline pass, under versions 1.0 to 5.0 of the standard, was considered a pass when one less amber indicator is received then would be required to fail (i.e. 5 green indicators and 4 amber indicators) or when a client is certified with equal number of amber and green indicators.

The tables below give the standard and a rationale for the scores given above. The score is highlighted in the appropriate colour.

<b>Component 1 – Generic requirements</b>	
<b>Criterion 1.1: Commitment to legality</b>	
<b>Responsible indicators</b>	For at least the past two years: the organisation has not been found guilty for any offences relating to eel fishing or trading.
<b>Aspiring indicators</b>	For at least the past 12 months: the organisation has not been found guilty for any offences relating to eel fishing or trading.
Discussion	No evidence of illegal trading by PI has been provided to the auditor and Mr Bardoel confirmed verbally that they have not received any prosecutions relating to eel purchase, farming or trading in the past 2 years.
Score	Pass: Responsible indicator
<b>Criterion 1.2: Contribution to Eel Conservation Projects. (Optional bonus score)</b>	
<b>Responsible indicators</b>	The organisation donates at least 2% of its profits or at least 20% of its corporate responsibility programme to projects that make a positive contribution to eel conservation or population enhancement, such as Eel Stewardship Funds, River Restoration projects, conservation and education projects.
<b>Aspiring indicators</b>	The organisation donates 1 – 1.99% of its profits or 10 - 20% of its corporate responsibility programme to projects that make a positive contribution to eel conservation or population enhancement, such as Eel Stewardship Funds, River Restoration projects, conservation and education projects.
Discussion	Based on profit from 2018 season, there was a donation of ~2.5% by the company through feed and final sale contributions to ESF projects.
Score	Pass: Responsible indicator
<b>Criterion 1.3: The facility trades in certified responsibly sourced eel</b>	
<b>Responsible indicators</b>	The organisation trades in at least 50% (by number) of certified responsibly sourced eel and has the documentation to demonstrate that.
<b>Aspiring indicators</b>	The facility trades in 10 – 49.9% (by number) of certified responsibly sourced eel and has the documentation to demonstrate that.
Discussion	11.6% of glass eels arriving at the facility last year were from a SEG source. This was not sold on as SEG fish due to not being certified at the time. The fish have not been kept separate presently, however any new batches of SEG fish arriving this year, if available would be kept separate.
Score	Pass: Aspiring indicator

Criterion 1.4: Traceability	
1.4.1: Traceability - Incoming product, separation and segregation	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>• Certified and uncertified eel products can be clearly and easily traced back to their source.</li> <li>• Where a fishery or buyer, an electronic tele-declaration system is used</li> <li>• It operates a clear system which ensures that the product remains separated at all stages from arrival to dispatch from non-certified eel products.</li> <li>• The organisation ensures that any products wishing to make a claim as certified do not contain any non-certified eel-based ingredients.</li> <li>• If resolved through mass- or number- balance calculations, the margin of error does not exceed 2%</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>• Certified and uncertified eel products can be traced back to their source.</li> <li>• It operates a system which ensures that the product remains separated at all stages from arrival to despatch from non-certified eel products.</li> <li>• The organisation ensures that any products wishing to make a claim as certified do not contain any non-certified eel-based ingredients</li> <li>• If resolved through mass- or number- balance calculations, the margin of error does not exceed 5%</li> </ul>
Discussion	<p>The four systems for glass eels to be separated allowing for separate batches to be kept apart. As not all systems are constantly used, there is therefore latency for extra separation where needed. There is a capacity for separation of SEG and non-SEG where the volume at the start is of 50% of each, however for quantities of less than this it becomes problematic when grading after the fingerling stage. Therefore, is it wished that a balance by pieces process is accepted by SEG for the future for eels which are larger than fingerling size at this farm.</p>
Score	Pass: Aspiring indicator
1.4.2: Traceability - Outgoing product	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>• Where a fishery or buyer, an electronic tele-declaration system is used</li> <li>• Documentation is well maintained with a maximum of 2% error in the following:</li> <li>• The organisation correctly uses batch-coding for labelling certified product, which can be on the packaging for the product, or included in the documentation (e.g. invoice) with the assignment</li> <li>• All product to be sold as certified by an organisation is accompanied by an invoice which meets the following criteria:               <ul style="list-style-type: none"> <li>- Includes an appropriate batch code</li> <li>- Includes a record of the quantity (no. &amp; weight) of product and to whom it was sold</li> </ul> </li> </ul>

<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>• Documentation is well maintained with a maximum of 5% error in the following:</li> <li>• The organisation correctly uses batch-coding for labelling certified product, which can be on the packaging for the product, or included in the documentation (e.g. invoice) with the assignment</li> <li>• All products to be sold as certified by an organisation are accompanied by an invoice which meets the following criteria: - Includes an appropriate batch code - Includes a record of the quantity (no. &amp; weight) of product and to whom it was sold</li> </ul>
Discussion	Weight and average weight per piece are provided on invoices, batch coding for future invoicing will be adopted as per guidelines should the farm become certified. All invoicing includes details of the buyer and quantity sold. As the farm is not currently certified it has not been permitted to sell any eels as certified and therefore it is not possible to check batch coding at this time.
Score	Pass: Aspiring indicator

### 1.4.3: Traceability - Record keeping and documentation

<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>• The organisation operates a system that allows the tracking and tracing of all eel from purchase to sale and including any steps in between. In the case of live eels this should include the ability to track each batch delivered to a buyer to be connected back to a water, a time period (maximum duration one month) and specific fisherman/vessel</li> <li>• If a fisherman or buyer, a tele-declaration system is used to report catches and trade</li> <li>• The organisation operates a system that also allows for the completion of a batch reconciliation of eel product by weight over a given period.</li> <li>• The organisation maintains records for a minimum of three (3) years.</li> </ul>
<b>Aspiring indicators</b>	<p>The above requirements are met except that:</p> <ul style="list-style-type: none"> <li>• Records have been maintained for less than three (3) years</li> <li>• If a fisherman or trader, a tele-declaration system is planned to be used to report catches and trade in the next season</li> </ul>
Discussion	All records of purchases and sales are present since 2010 when there was the fire at the facility and all records were lost. All fish are tracked by weight and pieces throughout the systems present to know different year classes and individual suppliers from 2018 onwards.
Score	Pass: Responsible indicator

### Criterion 1.5: Biosecurity & welfare – Eel and eel products are provided with minimal risk of diseases, parasites and alien species

**Eel farming: Biosecurity is present and disease is treated rapidly and appropriately**

<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>• The facility has the appropriate permissions to operate from the relevant authority.</li> <li>• The use of chemicals follows legal requirements of the EU and of the country concerned</li> <li>• An effective and documented biosecurity plan is in place and there is evidence that it is being followed.</li> <li>• Daily records are available showing monitoring of fish health and signs of stress and daily mortality is recorded</li> <li>• Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility</li> <li>• UV is used at an appropriate level and separation between tanks</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>• The facility has the appropriate permissions to operate from the relevant licensing authority</li> <li>• The use of chemicals follows legal requirements of the EU and of the country concerned.</li> <li>• An effective and documented biosecurity plan is in place and there is evidence that it is being followed.</li> <li>• Eels are regularly inspected for disease (although this may not be documented) and daily mortality is recorded.</li> <li>• Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility.</li> </ul>
<b>Discussion</b>	<p>Procedures are in place for biosecurity purposes. This includes overalls for anyone arriving at the facility which may have come from another source where eels were present. Foot mats are present at entrances for people and no external persons are allowed access to the buildings without first signing in. Only Family staff are present, no other staff. UV is present in the filtration process for all systems. Medication has been logged since 2011 for all administrations of antibiotics. All medications are administered by staff but under prescription by the vet.</p>
<b>Score</b>	Pass: Responsible indicator
<b>Wholesale / Retail / Processing: Hygiene Plans are followed and there are rare examples of infection</b>	
<b>Responsible indicators</b>	Food processing hygiene plans are followed
<b>Discussion</b>	Due to the scale of operation at the facility there is no national requirement for a hygiene plan for the quantity processed on site. It should be noted that no slaughter occurs here.
<b>Score</b>	Pass: Responsible indicator



<b>Component 5 – Eel farming</b>	
<b>Criterion 5.1: The total mortality rate during the culture process is low</b>	
<b>Weighting: 2</b>	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>The Percentage Mortality Rate of eels in culture is less than or equal to 10% on average in the current and previous year OR as an average of the previous five years</li> <li>An accurate daily log is maintained of the number and causes of mortality</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>The Percentage Mortality Rate of eels in culture is between 10 and 15% on average in the current and previous years OR as an average of the previous five years.</li> <li>An accurate daily log is maintained of the number of mortalities</li> </ul>
<b>Discussion</b>	<p>Mortality is currently not recorded daily but instead is based on regularly spaced waste disposal invoices. This currently includes the waste from the processing (~20% of weight taken) therefore mortality has up until now been based on 80% of the waste taken away for destruction. This equates to 4.5%, 3.9%, 2.4% and 3.6% mortality of the stock present for each year between 2015-2018 respectively. It was discussed with the manager and agreed that there would need to be a change in activity and that daily records would be required.</p>
<b>Score</b>	Pass: Aspiring Indicator
<b>Criterion 5.2: The fish meal/oil ingredients in the feed come from a responsible source</b>	
<b>Weighting: 1</b>	
<b>Responsible indicators</b>	Fish meal/oil in the feed (including juvenile feeds) is certified by IFFO or MSC or shown in some other way to be from responsible or sustainable sources
<b>Aspiring indicators</b>	Fish meal/oil in the feed (including juvenile feeds) is not certified by IFFO or MSC or shown to be from responsible sources, but there are credible plans to move to such a supplier within 2 years
<b>Discussion</b>	<p>The farm uses 0.5 feed from Skretting. Communications with Skretting were opened following the audit to acquire additional information on the sustainability of the feeds supplied. Some information was provided by the company however, no clear information was provided to indicate that the feed was IFFO or MSC certified. Company policy was provided which identified the responsibility criteria for ingredient supply to make the feed, and the company have confirmed that ingredients are sustainably sourced. All other feed is from BioMar who were contacted as part of the assessment and declared that:</p> <p>“The marine raw materials in the eel feed are variable in origin. The overall scores for fish meal and fish oil used by BioMar Brande during 2018 was: - 88% of sourced fish meal was IFFO RS compliant</p>

	- 96% of sourced fish oil was IFFO RS compliant.”
<b>Score</b>	Pass: Aspiring indicator
<b>Criterion 5.3: Feed is used as efficiently as possible</b>	
<b>Weighting: 1</b>	
<b>Responsible indicators</b>	The average feed conversion ratios in the farm are as follows: glass eel to fingerlings: 1.1 or less fingerlings to 200g: 1.6 or less large eels: 2.0 or less
<b>Aspiring indicators</b>	The average feed conversion ratios in the farm are as follows: glass eel to fingerlings: 1.3 or less fingerlings to 200g: 1.8 or less large eels: 2.2 or less
<b>Discussion</b>	Glass eels average out at 1.05, Fingerling to 200g average out to 1.35 and larger eels tend to average out per year to 1.8.
<b>Score</b>	Pass: Responsible indicator
<b>Criterion 5.4: Water quality</b>	
<b>Weighting: 1</b>	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>• A system is in place that is expected to keep key water quality parameters within suitable tolerances for healthy eel survival (e.g. Ammonia, Suspended Solids, pH, Oxygen)</li> <li>• Water quality management procedures are in place including regular monitoring of relevant parameters which shows that water quality is always high and stable</li> <li>• Water quality monitoring is linked to an alarm-based system in the event of a sudden drop in water quality</li> <li>• The facility operates a back-up system to ensure that water quality will not adversely affect survival rates in the case of a power supply failure.</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>• A system is in place that is expected to keep key water quality parameters within suitable tolerances (e.g. Ammonia, Suspended Solids, pH, Oxygen)</li> <li>• Water quality management procedures are in place and there is regular monitoring of relevant parameters which shows that water quality is always high and stable.</li> </ul>
<b>Discussion</b>	Water is from a 135m well on the premises, this water has been tested in the past and meets the requirements of the farm. Water quality is monitor electronically which is also connected to the alarm system. This is all downloadable and therefore not recorded other than the first 3 months for glass eels. Visual monitoring of eels including signs of stress are done twice daily. Back-up systems for power, oxygen and water temp control are in operation. pH is also adjusted automatically through

	the systems employed and manual checks of all water parameters are conducted once per week to ensure systems as correctly calibrated.
<b>Score</b>	Pass: Responsible indicator
<b>Criterion 5.5: There are minimal ecological impacts from effluent discharge</b>	
<b>Weighting: 1</b>	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>The system is closed-circuit and has no discharge OR</li> <li>Effluent discharge is regularly tested by the farm AND</li> <li>Effluent discharge complies with all local and national requirements AND</li> <li>Has not been found to be non-compliant in the past 5 years.</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>Effluent discharge is regularly tested by the farm AND/OR</li> <li>Has been found to be non-compliant on no more than 1 occasion in the past 5 years.</li> </ul>
<b>Discussion</b>	Each section of the facility has a number of filters including drum filters to remove suspended solids from the water. manure is then stored externally and removed periodically to fertilise surrounding fields – cleaned water is returned to town sewers. Monitoring is performed at random by the authorities (last completed in 2016) with no incidences of concern found to date.
<b>Score</b>	Pass: Responsible indicator
<b>Criterion 5.6: Grading, slaughter and transportation are carried out with respect to welfare</b>	
<b>Weighting: 1</b>	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>Grading is completed in an efficient manner</li> <li>Slaughter is completed by a method that provides an instant death or renders them insensible to pain, i.e. electric stunning or percussive stunning.</li> <li>Procedures are in place to ensure transportation provides suitable conditions for fish welfare.</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>Other, previously acceptable methods of stunning before slaughter are used, e.g. chilling, but there are credible plans in place to invest in the latest methods within the next 2 years</li> </ul>
<b>Discussion</b>	Grading is done periodically to ensure that there is not unnecessary competition between fast growing and slower growing individuals within a tank. This is done using custom made systems within the farm which allow eels to be handled as little as possible. Weighing is also done as part of the grading process on specially made platforms before eels are either returned to tanks or loaded into transportation vehicles belonging to other companies. Slaughter is done by an external company with the capacity and experience in this before returning some eels to the premises for processing/smoking.
<b>Score</b>	Pass: Responsible indicator
<b>Criterion 5.7: The farm provides eel for restocking</b>	
<b>Weighting: 2</b>	

<b>Responsible indicators</b>	The farm can provide documented evidence that 10% or more of the farm's annual eel production (by piece) <u>has been provided</u> for restocking for the purpose of conservation / escapement.
<b>Aspiring indicators</b>	The farm can provide documented evidence that it makes 10 % of their annual eel production (by piece) <u>available</u> for restocking for the primary purpose of conservation / escapement AND/OR for new clients, the farm can demonstrate that they have bookings for re-stocking in the following year at more than 10% of the predicted annual eel production (by piece) for the purpose of conservation / escapement.
<b>Discussion</b>	The farm sold 30%, 26% and 44.5% for 2016-2018 respectively by piece. This was verified through the invoicing system at the farm.
<b>Score</b>	Pass: Responsible indicator
<b>Criterion 5.8: Eels for restocking are not graded out slow-growers</b>	
<b>Weighting: 2</b>	
<b>Responsible indicators</b>	The size range and quantities in the eels for restocking reflect 100% that for the age group in the whole farm
<b>Aspiring indicators</b>	The size range and quantities indicate no more than a 25% supplement of those for restocking are from slower growing fish of the same age group.
<b>Discussion</b>	The restocking is done based on whole tanks with different sizes included within them from 2g-10g per piece. Therefore, no selection is done for those eels designated for restocking.
<b>Score</b>	Pass: Responsible indicator