

# SPECIFICATION

## COUNCIL REGULATION (EC) No 510/2006 on protected geographical indications and protected designations of origin

“Lough Neagh Eel”

EC No: UK-PGI-005-0796

PDO ( ) PGI (√)

This summary sets out the main elements of the product specification for information purposes.

### 1 RESPONSIBLE DEPARTMENT IN THE MEMBER STATE

Name: Department for the Environment, Food and Rural Affairs  
EU Food Policy Unit  
Area 6c  
Nobel House  
17 Smith Square  
London, SW1P 3JR  
United Kingdom

Tel: +44 (0)207 238 6075

Fax: +44 (0)207 238 5728

e-mail: [protectedfoodnames@defra.gsi.gov.uk](mailto:protectedfoodnames@defra.gsi.gov.uk)

### 2 GROUP

Name: Lough Neagh Fishermen's Co-operative Society Ltd

Address: Toomebridge  
County Antrim  
BT41 3SB  
Northern Ireland

Tel.: +44 (0) 28 79650618

Fax: +44 (0) 28 79650240

e-mail: [loughneagh-eels@btconnect.com](mailto:loughneagh-eels@btconnect.com)

Composition: Producers 150+

### 3 TYPE OF PRODUCT

Class 1.7. Fresh fish, molluscs, and crustaceans and products derived therefrom

### 4 SPECIFICATION

(Summary of requirements under Article 4(2) of Regulation (EC) No 510/2006)

#### 4.1 Name: "Lough Neagh Eel"

**4.2 Description:** Lough Neagh Eel is the name given to both Yellow (known as Brown locally) and Silver (mature) wild eels of the species *Anguilla anguilla* (European Eel) caught in the defined area. This application the fresh eel only. Lough Neagh Eels have the following characteristics:

- Large in size (minimum 40cm in length, weight between 150-600 g)
- Higher fat content than eels from other locations (mature Lough Neagh Eels have approximately 23% fat content)
- The younger "Brown/Yellow Eels" are a dark green with a brown/yellow tint.
- The older "Silver Eels" are black with a silver tint.
- Lough Neagh Eels have a narrow head and short tail with rounded body.
- The flesh of the fresh eel once cooked is white, soft and fluffy with an earthy flavour
- 

#### 4.3 Geographical area:

Lough Neagh in Northern Ireland and the Lower River Bann, from the Northern shore of Lough Neagh to the Cutts at Coleraine.

#### 4.4 Proof of Origin:

Eels caught by the fishermen are collected from Monday to Friday by the Lough Neagh Fishermen's Co-operative and driven to their factory at Toome (Toomebridge) for packing. Each fisherman's catch is stored in a separate container, which bears the licence number of the fisherman. This means that when the eels arrive at the factory, the individual containers can be traced back to each individual fisherman.

Each individual catch is weighed and the weight is recorded against the name of the fisherman. The eels are then packed into cardboard boxes labelled 'Lough Neagh Eels' before onward transport by Air Freight to dealers, smokers and processors. They are accompanied by Certificates of Origin, Invoices and Secure Supplier Declarations.

#### **4.5 Method of production:**

The Lough Neagh Eel Fishery is the largest commercial wild eel fishery in Europe. It is run by the Lough Neagh Fishermen's Co-operative Society, which has exclusive rights to the eel fishing in Lough Neagh. The Co-operative administers its own set of regulations, in addition to state imposed regulations, to ensure standards and sustainable fishing practices. These regulations include limits on the size of hooks, nets and boats used for fishing, the prohibition of unsustainable and environmentally damaging fishing methods (such as trawling) and explicit rules governing the times and dates that fishing can take place.

Lough Neagh Eels are caught in three different ways, two different methods for the Yellow Eels and a third method for the Silver Eels:

##### ***Yellow Eels***

The legal season for fishing for Yellow eels on Lough Neagh is between 1st May and 8th January the following year.

Licences are granted to fishermen by the Co-operative on an annual basis to fish for Yellow Eels on the Lough. Each boat (restricted to 8.6m in length) is required to have a licensed boat owner and a licensed boat helper. The fisherman's licence number must be painted on both sides of the boat. These fishermen employ two methods of fishing:

##### ***Long line method***

Fishermen set up to four nylon lines approximately 1 mile long with approximately 400 baited hooks attached to each line. These lines are then 'lifted' in the early hours of the following morning. This involves bringing the

line aboard by hand and storing any caught eels in barrels through which fresh water is pumped, to minimise mortality.

The catch is returned to shore, where any eels under 16 inches (40cm) in length will be returned to the Lough, under the Co-operative's regulations, to ensure sustainable stocks for the future.

### *Draft net*

Manual drafting of nets up to 90 yards (82.3m) long and 18 yards (16.5m) deep. Hydraulic pot haulers are used to retrieve the ropes attached to the nets, but the net itself must be hauled in by hand, not towed by the boat. Trawling for eels is banned to protect the bed of the Lough.

Fishermen often rely on experience and an in-depth knowledge of the Lough to locate the best catches under varying environmental and weather conditions.

When brought ashore, the eels are graded and eels below 40cm are returned to the Lough.

With both of these methods, fishermen are allocated a daily quota (normally 112 lbs) to fulfil market demand and maintain stock. Each individual boat's catch is stored in a separate aerated tank, identifiable by the fisherman's licence number, and transported to the Co-operative's factory at Toome (Toomebridge) on the Northern shore of Lough Neagh, where the eels are graded by size. They are put into perforated plastic bags with a block of ice to reduce mortality and these bags are then placed into cardboard boxes. These boxes are then transported by air so that eels caught on any given day are available for processing the next morning and on sale the following afternoon.

### ***Silver Eels***

The silver eels are eels that have matured in Lough Neagh and are now instinctively beginning their migration northwards towards the coast and onwards to the Sargasso Sea to reproduce.

Silver Eels can only be caught from the 1st of June to the end of February.

They are fished at fixed weirs at Toome (Toomebridge), at the exit of Lough Neagh on its northern shore, and Kilrea on the Lower River Bann, approximately 15 miles further north from Lough Neagh.

The silver eels only migrate under the cover of darkness and so they are captured at night by lowering large *coghill* nets into the river at the weirs. Each net is adjacent to a holding tank which sits in the river into which the captured eels are placed. These tanks can be raised and lowered to take account of the water level in the river depending on fluctuating rainfall.

The eels are then taken to the Co-operative's factory for grading and onward transportation, similarly to the Brown Eels.

### ***Sustainability and Stock Management***

The European eel is listed on Annex II of CITES (Convention on International Trade of Endangered Species). In addition Council Regulation (EC) 1100/2007 establishing measures for the recovery of the stock of European eel proposes that Eel Management Plans should be put in place.

To ensure the sustainability of the European Eel stock in the Neagh/Bann basin, an Eel Management Plan is in place which was developed and is operated in conjunction with the Lough Neagh Fisherman's Co-operative Society. To maintain stocks, a number of measures are in place. These measures can only be practically managed through a licensing system, which is operated by the Society. There are no restrictions regarding who can apply for a licence. Membership of the society is not a pre-requisite when applying for a licence, but if a licence is granted, then the fisherman may become a member of the Co-operative Society.

The Lough Neagh Fisherman's Co-operative Society manages the sustainability of the eel fishery through a number of measures:

- **Control of the issuing of licenses** The Co-operative issues approximately 180 licences each year. The licensed boat owner must be present in the boat at all times when fishing is taking place.
- **Control of fishing methods** Eel fishing can only take place using the long-line or draft net process. The lines are subject to a maximum number of hooks. There is a limit set regarding the size of both the boat and the net.

- **Catch quotas** A daily catch quota is set for each boat to ensure that the lough is not overfished.
- **Minimum catch size** Eels under 40cm must be returned to the water by the fishermen. If undersized eels are sent to the factory, then they are returned to the water at the factory and penalties may be imposed.
- **Operation of close season** Fishing for both yellow and silver eels is restricted to certain times of the year to allow for replenishment of stocks.
- **Protection Service** 24 hour protection service operates to ensure that only licensed fishermen fish for eels.
- **'Trap & truck' operation** To assist the inward migration of elvers up the River Bann to Lough Neagh, many are caught at eel traps and transported in tanks to the Lough to increase the number of elvers arriving in the Lough each year.
- **Traditional straw ropes** Straw ropes are hand made and laid on the elver passes to assist the elvers passage upstream to the Lough. This increases the success rate for inward migration to the Lough.
- **Maintenance of a 'Queen's Gap' at the silver eel weirs** A 10% unfished gap (*Queen's Gap*) is maintained at the eel weirs where the silver eels are caught to allow some of the stock to return to their mating grounds in the Sargasso Sea.
- **Purchase of elvers from other areas to supplement natural recruitment to the stock** In recent years the natural migration of elvers to Lough Neagh has declined and so the Co-operative buys elvers from other areas which mature in the Lough. These elvers will then mature in the Lough which gives them the distinct characteristics of Lough Neagh Eels.

#### 4.6 Link:

- **The geography, topography and climatic condition that result in an abundant growth of feedstuffs.**

Lough Neagh is the largest lake in the British Isles and is the fifth largest lake in Europe, covering 150 square miles. It is fed from a number of rivers and drains to the sea via the lower River Bann at the northern shore of the Lough.

Glass eels migrate from the Sargasso Sea northwards along the Gulf Stream across the Atlantic Ocean. They follow the North Atlantic Drift up towards Ireland. They reach the tidal reaches of the River Bann on the northern coast of Northern Ireland at Coleraine where they are either caught and moved in trucks, or swim upstream to Lough Neagh. Once they reach the Lough they stop, feed and mature until they are ready to return to the Sargasso Sea to spawn. When fully grown, they cease feeding and instinctively return back towards their spawning grounds. The only direct route for the eels to return to the sea is the Lower River Bann

The large number of rivers coming into the lough result in high sediment deposits in the lough. These sediments are very dark and are composed of silts and clays, organic matter and diatom frustules. The silts and clays are primarily derived from river borne suspended material whilst the organic matter originates partly from catchment sources and partly from material produced within the lake. Their nature and size makes them a suitable habitat for the multitude of invertebrate life, particularly Chironomid fly larvae which are known to dominate the benthic communities in the lake and which constitute the vast bulk of eel diet. This high value food contributes to the unique higher fat content from eels in Lough Neagh.

The Lough is rich in nutrients (hypertrophic) and is continually aerated by circulating winds, which ensures that the enriched nature of the lake does not result in dramatic loss of oxygen in the warmer months.

The combination of feedstuffs and retained oxygen levels means that the lough sustains greater numbers of eels.

- **The long tradition and reputation**

Lough Neagh is the largest freshwater lake in the British Isles. Legend has it that the warrior giant Finn McCool created the Lough by scooping up a handful of earth and flinging it at a rival Scottish giant. The earth landed in the sea,

creating the Isle of Man and the resulting hole filled up with water and became Lough Neagh.

Archaeologists believe that the fishing for wild eels has taken place on Lough Neagh since the Bronze Age, with skeletal remains uncovered when excavating settlements dating back 3-4,000 years. There is evidence of commercial fishing for eels at Crosskeys, on the Lower Bann Basin, north of Toomebridge from about 2000 BC.

In 590 A.D. St Colman founded a monastery at Ardboe on the shores of Lough Neagh and tradition has it that he fished for eels from here. Current fishermen in this area attribute their fishing skills to the influence of St Colman.

The title to the eel-fishing rights on Lough Neagh and the River Bann derives from 1640, when Charles I granted the bed, soil and eel fishery to the Earl of Donegal. At this time, Archbishop Laud, an advisor to Charles I, commented that the eels were 'the fattest and fairest that he had ever seen'

In 1893, the Chief Secretary for Ireland told the House of Commons at that time that 'the public have exercised a right of fishing for eels in the lake probably since the reign of Charles II (1630-1685)'.

In 1959, the title to the exclusive right to fish for eels was pursued in the Northern Ireland High Court, where a decision was given in favour of Toome Eel Fishery (NI) Ltd. Following this decision, the fishermen around the Lough were still required to seek permission from Toome Eel Fishery (NI) Ltd to fish, and were required to sell their catch to this company, whilst adhering to strict regulations imposed by the company.

Local fishermen objected to these restrictions, citing that it was their moral right to fish on the Lough and formed a Co-operative Society. In 1965, the Co-operative society purchased 20% of Toome Eel Fishery (NI) Ltd and then in 1971 purchased the remaining 80%.

Since this time, fishing for eels on Lough Neagh has been managed by the Co-operative Society. The Society is administered by a Management Committee and Board of Directors who are elected by the fishermen. This means that the full profits of the fishery are now shared locally by the fishermen and the members of the Co-operative.

The Co-operative Society and its activity demonstrates what can be achieved in a previously disadvantaged community through local enterprise founded on the principle of self-help.

The fishermen still use many of the traditional methods used by generations before them. To assist the elvers in the journey upstream to the Lough, the Co-operative Society make straw ropes by hand and place them in the elver passes along the river. This assists the passage of the elvers around the weirs and other obstacles. Oat straw is used to make the ropes, as it is more durable. It is necessary to source straw which has been harvested from traditional machinery as modern machinery cuts the straw too finely for rope making. The co-operative sources straw from vintage harvesting demonstrations to ensure that it is suitable for rope making. W Thompson wrote in *The Natural History of Ireland* (1834)

*It is an interesting sight to mark the thousands of young eels there (at the mouth of the River Bann) ascending the stream. Straw ropes are suspended over rocky parts to aid them in overcoming obstructions.*

The long line fishing method is a traditional hand powered technique that has been used by fishermen for many generations.

Such is the importance and reputation of eel fishing to Lough Neagh and the surrounding area, Nobel Laureate Seamus Heaney published a collection of poems in 1969, entitled "A Lough Neagh Sequence", which he dedicates to "the fishermen". He describes the life cycle of the eel and the work of the fishermen, including specific references to the processes involved, such as 'setting' and 'lifting'. Other local poets, such as John Coleman and Owen Toal, also wrote poems about the fishermen that used the Lough in the 1920's and 1930's.

There are a number of superstitions held by the eel fishermen of Lough Neagh. It is believed unlucky to turn back once you have gone out onto the lough, even if you have forgotten equipment. Many fishermen, particularly on the western shore would have tied a piece of flannel on the nets to keep a curse away and donkey's manure in the tail of the net is considered lucky. Older fishermen also believed it was unlucky to have salt in the boat, or to boil an egg in the boat. Smoking and whistling on board was also frowned upon, as it was believed that smoking scared away the eels and whistling would bring on a storm. Although

women helped with much of the preparation for going out to fish, having women in the boat was considered bad luck. The sight of a red-haired woman was considered very bad luck, especially on New Year's Day. If a fisherman met a red-haired woman on the road on the way to fishing, he would turn on the road and take 3 steps with her to counter the bad luck.

Recently, a sculpture was erected outside the town of Toome on the northern shore incorporating imagery reflecting the local history and heritage of the area. The sculpture is dominated by images of eels swimming.

Practically all of the eels from Lough Neagh are sold outside Ireland. Some make their way to Billingsgate in London, with the majority going to the Netherlands and Northern Germany, where they are smoked.

Lough Neagh eels have a very high fat content and so are ideal for smoking. Traders in the Netherlands class Lough Neagh eels as the best in the world for smoking. As such, eels from Lough Neagh are highly sought after and command much higher prices than either farmed eels, or eels from elsewhere.

Recently, chef Danny Millar used Lough Neagh Eels as an indigenous product from Northern Ireland in his menu in the final of the BBC's Great British Menu.

Renowned TV seafood chef Rick Stein states that:

*I filmed the eel fishermen of Lough Neagh for my television series Food Heroes a few years ago, it was a remarkable experience going out with them on a summers dawn at about 4 o'clock in the morning and while talking to them I discovered that most of their eel catch went to Holland to be made into a delicacy revered by the Dutch, smoked eel.*

*Having tasted both smoked and fresh Lough Neagh eels I can say I've never tasted better. To eel lovers like myself the difference between the wild and farmed is everything.*

Mick Jenrick, *Mick's Eels Supply*, London

*Lough Neagh eels are the best in the world because of their high fat content. They are the Rolls Royce of eels.*

Hein Dil, of *Dil Import- Export*, Akersloot, Netherlands

*The flesh of the fresh Northern Irish eels from Lough Neagh is soft. Lough Neagh Eels are good for smoking because of the softness. After smoking it is mild of taste and remains soft in texture.*

*The taste of the Northern Irish eels is very good due to the fact that wild eels always have the best taste.*

*Dutch clients appreciate the Northern Irish eels because the Dutch like to eat the smoked eels from the bone. Because the flesh is soft, this is possible*

#### **4.7 Inspection body:**

Name: Agri-food and Biosciences Institute for Northern Ireland

Address: Fisheries and Aquatic Ecosystems Branch  
Newforge Lane  
Malone Road  
Belfast  
BT9 5PY

Tel.: +44 (0) 28 90255551

Fax: +44 (0) 28 90255035

Labelling:

The approved symbol as set out in Annex V of EC Regulation 1898/06 will be used,