SPECIFICATION

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

"Fenland Celery"

EC No:

PDO ( ) PGI (✔)

1 RESPONSIBLE DEPARTMENT IN THE MEMBER STATE

RESPONSIBLE DEPARTMENT IN THE MEMBER STATE: UNITED KINGDOM

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2 GROUP

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Composition: Legal co-operative of farmers(✔) Other ( )

3 TYPE OF PRODUCT

Class 1.6 Fruit, cereal etc

4 SPECIFICATION

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

4.1 Name:

"Fenland Celery"

4.2 Description:

Fenland Celery (Apium graveolens) is the name given to celery which has been planted, grown and harvested using traditional and commercial methods on the Adventurers 1 and 2 type deep peat soils in specific parts of Cambridgeshire, Suffolk and Norfolk.

The method by which Fenland Celery is grown, and the varieties that are used, mean that it is characterised by a wider butt and more splayed sticks (or petioles) making it often less attractive in appearance than modern day celery varieties. The butt ranges from 8-12cm in diameter, and is deeper in shape and often less uniform that its counterparts. Fenland Celery will often appear with a more pronounced root due to its growing and harvesting techniques. This method of production means that the celery is crisper, crunchier and less stringy than most modern varieties.

In terms of taste, Fenland Celery possess a deeper and more evenly balanced sweet / salty / bitter flavour ratio than modern day varieties. This is paired with a characteristic refreshing delicate nuttiness, and subtle aromatic conifer fragrances and mild aniseed notes

Fenland Celery is planted in either June or July and harvested between September and December. It can grow from between 60cm and 80cm in length from the butt to top of the leaves. This remains comparatively shorter compared to modern day celery varieties. The colour of the butt ranges from lime white to lime green. The base of the Fenland Celery stick is always the whitest part, moving up to lighter green stick and gradually into light green leaves – this again differs considerably to modern celery varieties which, due to their exposure to the sun, are green sticks. Fenland Celery appears more robust, knobbly and with more pronounced veins than modern day celery varieties, and has a slightly more brittle, yet more tender, crisper and crunchier texture – due in part to the variety used but also due to the production method of banking up the soil to cover the plant. The only varieties that can be used to produce Fenland Celery are as follows: are used for Fenland Celery are:

Hopkins Fenlander

New Dwarf White

Ely White

These three varieties are the only ones used due to their good yields, taste, resistance to disease and adaptability to the soil type.

4.3 Geographical area:

It is specified that Fenland Celery must be grown on Adventurers 1 and 2 soil series that is defined by the Soil Survey of England and Wales and which occurs in the soil associations of Downholland and Isleham. It is characterised by a deep peat soil which is naturally very fertile, deriving partially decomposed plant remains that accumulated under waterlogged conditions. This soil type is found specifically in the following parishes of Cambridgeshire, Suffolk and Norfolk.

Cambridgeshire:	**Norfolk:**
Part of Welney	Leziate
Littleport	East Winch
Ely St Mary and Trinity	Bawsey
Ely Trinity (Detached)	Middleton
Thetford	Wimbotsham
Stretham	Crimplesham
Willingham	West Dereham
Haddenham	Wereham
Sutton	Wretton
Colne	Stoke Ferry
Coveney	Northwold
Chatteris	Ryston
Welches Dam	Downham Market
Manea	Denver
Wimblington	Fordham
March	Nordelph
Thorney	Welney
Wisbech St Mary	Feltwell
Waterbeach	Hockwold-cum-Wilton
Horningsea	Redmere
Bottisham	Wormegay
Swaffham Bulbeck	East Winch
Swaffham Prior	Middleton
Burwell	Leziate
Wicken	Roydon
Burwell	
Soham	**Suffolk:**
Fordham	Lakenheath
Isleham	Mildenhall
Chippenham	Barton Mills
Snailwell	Worlington
Ramsey	Freckenham

4.4 Proof of Origin:

The permitted seed varieties are bought from seed suppliers that have full traceability. In commercial production of this Fenland Celery, the seeds will be sent to a greenhouse to be germinated and start their life.

From the greenhouse the small plants are transported, with a delivery note specifying number of plants, variety and time in the greenhouse, to the Fenland farm where they should be transplanted into the ground within 24 hours.

The individual fields that the Fenland Celery is grown on all lie within the Fenland border and each will have a specific number or name that will appear on farm records. The same records will also contain a farm plan that will show in which fields the celery is being grown. The individual field will be mapped during the planning process and it will specify which variety is planted in which section of the field. All other information through from seedhouse to field will be recorded in these same farm records.

Throughout the growing process, the grower will know exactly what fertiliser and pesticide allocation the plant will need. This will be applied as and when needed and the name, quantity and code of these are fully recorded within the farm records. Likewise irrigation, the water of which will be taken from Fenland rivers or reservoirs, is administered when necessary and the volume and location of the water is also recorded in these records.

During the harvesting process, the product is cut and packed directly in the field by hand. It will be packed into generic or customer-specific celery bags, or packed without wrapping directly into boxes – at least one part of the packaging (either the bag or the box or both) will specify the name ‘Fenland Celery’. The bag or box should also carry the name of the packer, the country of origin and either a date of packing or a best before date. Again, the variety of the sticks harvested, the number of sticks harvested, the field name or number and the crew number will also be recorded in the farm records providing further traceability to the product.

The celery will then be sent to the relevant customer with all necessary paperwork stating product name, packer name, country of origin and either a date of packing or a best before date. Again this delivery will be recorded on the farm records completing the full traceability of Fenland Celery.

4.5 Method of Production

Fenland Celery typically starts life as a seed of one of three varieties. If used on a commercial basis, this seed is sent to a propagation greenhouse between May and June where it is germinated and spends the first three weeks of its life. From the greenhouse, the young plant is sent by lorry or tractor to the Fenland-based farm where it is planted in the Adventurers 1 and 2 type deep peat soil within one day. This soil benefits the celery in two ways: firstly, due to its naturally fertile nature, it will provide the plant with many of the nutrients it needs. Secondly, its

consistency means that it can be banked up around the plant protecting it from the sun, which ensures that the skin remains white, protecting it from the frost towards the end of the year which enables farmers to extend the UK season and achieve a higher price at the local markets.

The method used to grow Fenland Celery dictates that the plants are grown in wide rows separated with deep trenches. As it grows, the trenched earth is banked up around the plant to prevent the sunlight reacting with it and turning it green; ensuring it retains its characteristically white colour. This traditional production method, coupled with the permitted Fenland Celery seed varieties and the black peat Adventurers 1 and 2 soil types all contribute to its nuttier, sweeter flavour with aniseed overtones and its white colouring which are key characteristics of Fenland Celery – and all of which differentiate it to its modern day equivalent.

The most commonly used seed varieties nowadays are New Dwarf White and Hopkins Fenlander; however there are many other smaller, less common old-fashioned celery seeds available.

Field preparation for the celery begins in February when the land is ploughed and sub-soiled to break any compacted layers of soil and to create plenty of tilth (or top soil). Harrowing, by either a commonly-used machine or hand-harrow mechanism, follows to ensure the land is level and to break the large clogs of soil into smaller ones. The rows, where the celery plants will be planted, are then be marked out – this again can be done with by machine or by hand. In order to grow the best Fenland Celery, potash, phosphate and nitrogen can be applied to the soil before the planting stage.

Between April and May, the Fenland Celery variety seeds are bought and delivered to an approved plant raiser for germination. At the plant raiser, they are sown into peat blocks and moved to the germination room where they will remain for seven days at 18°c. They are then moved to the main greenhouse where they remain for approximately three weeks until they are young seedlings (about 4 inches high) and are ready for planting. They are then transported to the Fenland farm where they are transplanted into the ground within 24 hours. The transplanting of the small plants takes place between June and July - this allows for staggered crop and reduced risk of crop failure.

The standard plant population of Fenland Celery is considerably reduced with 50% less plants per hectare compared to a conventional celery crop (modern varieties is 50K plants / ha, Fenland Celery 25K plants / ha). Modern day celery is grown on the same soil type – in fact, of all the celery grown today, up to 95% is grown by the modern day 'close row' method and only 5% is grown in the traditional way. This is mainly due to the increased costs and extra work associated with traditional methods as well as the lower yields provided.

Traditionally, Fenland Celery is grown in wide rows that must be at least 90cm apart and that are separated by deep trenches. All the way along the middle of the bed, a small trench is dug in which the Fenland Celery plant is planted by

hand or by machine. The celery is planted in single rows. As the celery grows, the soil is banked up around the celery stick – the consistency of the Adventurers 1 and 2 soil type allows for this banking up process to occur. This is best done by a tractor that is fitted with a specialised ridging machine or, in the absence of machinery, can be done by hand. Due to the slow growth of Fenland Celery, this process is only started after approximately eight weeks of growth and is carried out between four and five times throughout the growing process. This ensures that the base of the plant does not come into contact with the sun (which bleaches it green) and that it is protected from the frost.

Throughout the growing process, the celery can be sprayed to fight disease and pest damages. The two main celery diseases are sclerotinia and septoria, which are combated with a fungicide programme. Likewise, there is an aphicide programme to combat the two main pests – carrot fly and aphids. Herbicides are applied to the crop after planting to minimise the weeds. The crop also receives trace elements of manganese and magnesium in order to encourage a healthy plant with no nutrient deficiencies.

The crop will be monitored throughout its growth cycle by the farmer until it is deemed ready and of an acceptable quality for harvest. Depending on the time of year, the growth cycle will be between three to six months. Depending on rainfall levels of a specific year, the Fenland Celery crop will be irrigated with up to 200mm of water that must be taken from Fenland waterways (rivers and ditches). Irrigation water cannot be taken from the mains water supply or any kind of desalination plant. If there was a shortage of water, it would be taken from Fenland reservoirs.

Harvesting Fenland Celery takes place between September and December and is a complex operation whereby the banked earth is first loosened by a specialised wide row tractor and hoe mechanism, though it can be done by hand with a spade. The celery is harvested by hand using a knife.The roots may be trimmed completely or left with a small amount know as ‘Pencil-pointed’ celery.. The celery is then washed, cut and packed into boxes whilst still in the field. Fenland Celery was traditionally dirty with a certain amount of soil left on the stick, so washing is not always a necessity.

Growers of Fenland Celery should rotate their land every 3-4 years to ensure that the quality of the soil is maintained. This process is an essential production requirement in order to achieve high quality celery and to maintain the quality of the soil.

4.6 Link:

The combination of soil, varieties and production method that are used only in the Fenlands have provided the area with the reputation of producing the highest quality, best tasting celery. Historically, farmers in this area planted Fenland Celery through from July with first harvests in September through until

December. The banking up of the earth protected the celery from the winter frosts, and enabled producers to prolong the season and achieve a better price.

The Fenland Celery varieties have been selected due to their yield, taste, resistance to disease and adaptability - Hopkins Fenlander, New Dwarf White& Ely White. All three were developed in the Fens and have been the variety of choice for the past 50 years. Dwarf White Celery, is over 100 years old and Hopkins Fenlander, was originally bred from the Fenlander varieties by Mr Stanley Hopkins of (Stretham) Ely in the mid 1900s. The third celery variety, Ely White, was also bred in the Ely area and was popular in the past. This variety, while it produced good tasting Celery, was less resistant to disease than other varieties – therefore, while used, it is not as commonly used today in commercial growing.

Fenland Celery grows in the deep peat Adventurers 1 and 2 type soils of the Fenland area, which is naturally very fertile, deriving from undecayed dead vegetation that grew in the Fen and bog. It takes the name from the various seventeenth-century drainage adventurers who, headed by the Earl of Bedford, set about draining the Fenlands –in particular, it refers to 'Gentlemen Adventurers', or venture capitalists, who funded the construction and were awarded with large plots of drained land.

This type of soil is naturally flat which in part is caused by the very nature of the deep peat and also by the way the land is drained. The water levels created by drains and ditches mean that the celery plant receives the optimum water levels.

The Adventurers 1 and 2 deep black peat soil is naturally fertile and has the nutrients necessary for the successful production of high quality celery – grown both in the modern way or in the traditional way which produces Fenland Celery. The nature of the black peat also means that the celery plant benefits from extra warmth. In the Principles of Horticulture, by C. R. Adams, M. P. Early, K. M. Bamford, it states that this soil will warm up quicker than others because, due to its colour and consistency, the sun's energy is easily absorbed by the soil and then retained. The method of production is best suited to this type of soil as it provides it with the necessary nutrients as well as the right consistency for banking up the soil. Fenland Celery grows notoriously slowly due to the time of the year and production technique – the black peat soil 'speeds up' this process. Planting on any other type of soil would slow growth even further. This slowing growing product contributes to its distinctive nutty and bitter / sweet flavour and its more tender, crisper and crunchier texture.

It is the largest area of this specific soil available in the UK for farming and it is the most productive. The unique properties of the soil coupled with the cooler, drier climate of the Fenlands provide the perfect conditions to make it possible to plant, grow and harvest celery through from July until December. The Fenland region has a lower rainfall average than other key arable areas in the UK (365mm last year – Weather Commerce Ltd). Low rainfall is an important factor in the production of Fenland Celery because excess rain would impede growth by damaging the soil trenches and encourage disease. The traditional method of

production is not only a land-intensive way to grow this vegetable, but it is a real art as growers have to ensure sufficient protection against frost without smothering the plant and making the growing conditions too warm (which would result in disease and rot).

It also remains a labour-intensive way of producing celery compared to modern-day varieties and techniques. The techniques, which have been passed down through generations of Fenland farmers for over 50 years, have been honed and developed in order to produce the highest quality celery available – it was not long before the Fens became a place that was, and remains, synonymous with high quality celery.

History of the Fens

The Fenlands are a naturally marshy region in eastern England of which the majority, up until 16th century, was underwater.

The land first started being drained during the 1630s. It was during this time, that two cuts were made in the Cambridgeshire Fens to join the River Great Ouse to the sea at King's Lynn - the Old Bedford River and the New Bedford River. However, once drained of water, the peat shrank, and the fields lowered further, until the land was again under water by the end of the 17th century.

After several attempts on draining the area, final success came in the 1820s with the introduction of coal-powered steam engines. The Fenlands are now drained by 286 small electrical pumping stations, 3,800 miles of watercourses, 60 miles of sea embanked defenses and 96 miles of fluvial river embankments. Consequently in most places the Fenland lies no more than 10m above sea level. Many parts now lie below mean sea level.

With the support of the drainage system, the Fenland, which borders Lincolnshire, Norfolk, Cambridgeshire and Suffolk became a major arable agricultural region in Britain for grains and vegetables. The environmental and geographic advantages both now and in the past which have provided the perfect soil – namely the Adventurers 1 and 2 deep peat type - and climate conditions in which to grow Fenland Celery.

“Most of the late (winter) Celery produced in Britain comes from the deep peat area of the Black Fens” *The Black Fens, HJ Mason.*

Food critics have made these comments regarding the uniqueness of Fenland Celery:

“Other forced vegetables turn up on shelves, such as traditional celery from Fenland, dug from Cambridgeshire soil. Forced rhubarb from Yorkshire, strictly speaking a vegetable, is very good eaten with grilled fresh mackerel and red chilli.” Rose Prince, New English Cook, Feb 2009.

"Celery is as English as the Stilton cheese. Originally, the older varieties of so-called 'dirty' celery from the flat black-earthed Fenlands of East Anglia had a short season – from October to January. If you're lucky enough to eat some, there is much washing to do, but the flavour is exceptional, particularly after a light frost, when it's sweetest of all." Delia Smith, Delia Online.

It's not very often that we crave something cold, damp and dirty, but when the earthy fenland celery first appears on the shelves in late Autumn it is a real treat!" Sally Bendall, Season Magazine, Nov 2008.

4.7 Inspection body:

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The inspection body conforms to the principles of EN 45011 standard.

4.8 Labelling: N/A