SPECIFICATION

COUNCIL REGULATION (EC) No 1151/2012 on protected geographical indications and protected designations of origin

"Traditional Welsh Perry"

EC No:

PDO () PGI (x)

1 RESPONSIBLE DEPARTMENT IN THE MEMBER STATE

RESPONSIBLE DEPARTMENT IN THE MEMBER STATE: UNITED KINGDOM

Name: Department for the Environment, Food and Rural Affairs

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2 GROUP

Name: Welsh Perry and Cider Society Limited / Cymdeithas Perai a Sedir Cymru

Address: WPCS Office

Blaengawney Farm, Hafodyrynys, Crumlin, Newport, NP11 5AY Wales, UK

Tel.:01495 240983Email:info@welshcider.co.ukWebsite:www.welshcider.co.ukComposition:Producers/processors (20)Other ()

3 TYPE OF PRODUCT

Class 1.8: "other products of Annex 1 to the Treaty"

4 SPECIFICATION

4.1 Name:

"Traditional Welsh Perry"

4.2 Description:

"Traditional Welsh Perry" (in Welsh Perai Cymreig Traddodiadol) is perry made in Wales from first pressed juice of perry pears from indigenous and non-indigenous pear varieties grown in Wales to a traditional method. "Traditional Welsh Perry" may be made from the juice of a single variety of perry pear or from a blend of different varieties. "Traditional Welsh Perry" is made from 100% perry pear juice

The colour of "Traditional Welsh Perry" typically ranges from pale almost colourless yellow to dark gold. "Traditional Welsh Perry" will be either clear or cloudy and has a prominent light or full fruity pear flavour balanced with natural sweetness due to the sorbitol content of the perry pears used, and a citrus acidity and delicate fruity aroma. The flavour is complemented by the 'body' given by the tannins and can have a crisp dry or predominantly sweet finish. It has an alcoholic strength between 3.00% - 8.49% ABV.

Three forms of "Traditional Welsh Perry" are produced- still, bottle conditioned and bottle fermented as described.

Still: this is perry with no carbonation above atmospheric pressure. Stored in an airtight container the partial pressure of carbon dioxide (CO_2) will be less than 1 bar (100kPa), and within a more porous container, such as a wooden barrel, the partial pressure will be substantially less than 1 bar. Perry served either directly or indirectly from these types of container will be still (flat) with no perceivable effervescence but with the possible formation of some bubbles if the temperature of the perry rises from its stored temperature - as the solubility of CO_2 decreases as the temperature rises.

Bottle conditioned: a natural carbonation is introduced by bottling the perry prior to the completion of the primary fermentation. The perry is bottled at a specific gravity

(SG) decided by the maker to give the desired level of carbonation and sweetness. The more carbonation achieved the less residual sweetness remains. For keeved perry the desired level of carbonation is achieved by reducing the number of yeast cells and denuding the yeast of nutrient which prevents the completion of fermentation to dryness. The CO₂ pressure achieved in bottle conditioned perry will be in the range of 1.5 to 3.0 bar (150-300kPa) at 0°C and as it contains yeast sediment can appear cloudy if not opened and poured carefully. It is dry to the palate unless "keeved". Only bottle conditioned, Traditional Welsh Perry has the option of being "keeved". The maker can calculate the level of carbonation achieved from the difference in specific gravity (Δ SG) prior to bottling and that at completion of the bottle conditioning process.

Although the alcoholic strength of bottle conditioned Traditional Welsh Perry would be within a similar range of still perry (from 3.00% to a maximum of 8.49% ABV) on average bottle conditioned perry, particularly if "keeved" would tend to be the lower end of this range (3.0-5.5% ABV) as keeving results in incomplete fermentation of the fruit sugars.

Bottle fermented: a natural carbonation is introduced by bottling the perry at the completion of the primary fermentation and inducing a second fermentation by the addition of fermentable sugar and yeast. Bottle fermented perry has a higher carbonation than bottle conditioned and is of clear appearance after disgorging. It is dry to the palate as all sugar is fermented during the secondary fermentation and post disgorgement dosing is not permitted. The CO₂ pressure achieved in bottle fermented perry will be in the range of 4.0 to 6.0 bar (400-600kPa) at 0°C The maker can predict the level of carbonation from the amount of fermentable sugar added and can calculate this from the Δ SG from measurements made post addition and that at completion of the bottle fermented process.

Although bottle fermented perry's alcoholic strength would be within a similar range of still Traditional Welsh Perry (from 3.00% to a maximum of 8.49% ABV) on average bottle fermented perry will tend to be at the higher end of this range due to the second fermentation to dryness (5.5- 8.49% ABV).

The only additives permitted in making Traditional Welsh Perry to either fermented or unfermented juice are:

- Cultured yeasts such as *S. bayanus, S.cerevisiae,* which are usually supplied in dried form.
- Sulphite in the form of sodium or potassium metabisulphite is not always necessary but is permissible to safeguard microbiological standards. Where a maker chooses to add sulphite it must not be more than 200 mg/kg SO₂ (or 200mg/litre SO₂) and its inclusion must be identified on the label as required by law.
- Calcium Chloride salt and Pectin esterase enzyme permissible when producing a naturally sweet perry using the 'keeving' method.

"Traditional Welsh Perry" is sold either in a range of bottle sizes or in draught form. Bottled Traditional Welsh Perry can be still or naturally sparkling.

4.3 Geographical area:

The country of Wales.

4.4 **Proof of origin:**

Perry makers keep full records of where the pears for each numbered batch (cuvée) are sourced. These records include the date, the variety and amount picked, contact details of the orchard owners, and all receipts and invoices (including copies of invoices).

Each perry maker is required to complete a document specifically designed for charting the traceability of the raw materials to the final product, in line with existing HACCP or equivalent controls. This document requires the perry maker to include the following data;-

- a) name and address of orchard
- b) what variety was picked/supplied
- c) when it was picked/supplied
- d) when it was collected/ by whom
- e) date of arrival/delivery
- f) signed/dated on delivery
- g) signed/dated by receiving processor
- h) quantity of fruit/tonne/kg

- i) how transported by whom
- j) how stored
- k) quality checks completed (visual washing)/ by whom
- I) batch identity
- m) pre fermentation data
- n) post fermentation data

The following procedure is noted and recorded during fermentation:

- Variety of pear
- Quantity of juice from each variety
- Identification of fermentation vessel
- Addition of yeast
- Racking off the yeast sediment (lees)

Any specific gravity (S.G) measurements at the start of, and during, fermentation are also recorded.

- o) finished product data
- p) name of product
- q) durability/best before date

The batch number acts as a cross-reference to the perry maker's records of fruit and its origin orchard.

When packaged for sale, either bottled or in draught containers, the batch number is also recorded.

4.5 Method of production:

Pears either fall or are shaken from trees onto the ground and are collected by hand or machine. Pears which are in good condition are picked by hand or picking machine and poured into sacks or trailers (or similar). The decision of what is "good condition" is up to the discretion of the individual perry maker and will vary between perry makers, however any pears that are significantly damaged or rotten would be discarded. Perry pears, depending on the variety, can be pressed immediately or may be stored to ripen for several weeks. They may also be stored in barns, silos or trailers

Nothing is added or done to help them ripen, they are given time to ripen naturally. Once ripe the pears are transported to the mill in containers (often nets or sacks) or loose in trailers.

Juice production

When the pears arrive at the mill they are washed, unless the quality of the fruit is such that cleaning is not required, for example when pears are derived from organic orchards. Any damaged fruit is removed by hand before pulping occurs.

The pears are milled into a pulp by machine. Machinery used varies from perry maker to perry maker, but are all based on the scratter mill principle. A scratter chops up whole fruit into a pulp form, which is then pressed to extract the juice.

"Traditional Welsh Perry" is made from 100% first pressed pure perry pear juice only. The only permitted additives to either fermented or unfermented juice are as follows:

Yeast: cultured yeasts such as *S.bayanus, S.cerevisiae*, are commercially available and are usually supplied in dried form. Typically an inoculation culture is prepared by rehydrating, and once this is active the culture is added to the fermentation vessel. Many makers will, however, rely on traditional natural yeasts which are wild yeasts present on the skins of the perry pears and are also found in the air pockets within the fruit. As the perry pears are milled and pressed, so the natural yeasts find their way into the juice and within two or three days will start a visible fermentation. Some makers prefer adding cultured yeast as they consider it gives a more reliable fermentation. In contrast, certain makers would argue that in just using the natural wild yeasts, it gives a local signature to the flavour.

Sulphite: the addition of sulphite in the form of sodium or potassium metabisulphite is also permitted to safeguard microbiological standards but must be in line with good commercial practice. It is not always necessary to add sulphites, but where a maker chooses to add sulphite it should not be more than 200mg/litre SO₂ and its inclusion must be identified on the label as required by law.

Calcium chloride salt and pectin esterase enzyme: It is permissible to produce naturally sweet perry using the 'keeving' method. This involves adding a mixture of

food-grade calcium chloride salt and pectin esterase enzyme to the fermenting perry the result of which is to reduce its yeast and yeast nutrient content.

Fermentation

The 100% first pressed perry pear juice is fermented in sealed food-grade containers of wood, plastic or stainless steel, using air locks to allow the egress of carbon dioxide and prevent the ingress of oxygen.

Fermentation is carried out at outdoor ambient temperatures between 0° and 20° centigrade (C). This is usually a naturally slow fermentation procedure which can last between 3 and 8 months. Perry makers keep a check on the progress of fermentation by taking the specific gravity (SG) of the juice/perry from time to time - this is a measure of the remaining sugar. The perry may be racked: this is a process that removes the supernatant perry from the yeast sediment at the bottom of the fermentation vessel. Racking may take place at completion of primary fermentation, or earlier at any number of times prior to the completion of the primary fermentation providing the alcohol content of the finished perry exceeds the minimum of 3.00% ABV. Early racking may result in the preservation of some of the naturally fermentable sugars resulting in sweet perry. Unfermented first pressed pear juice will usually have a SG of between 1.045-1.065. The SG of the fermented juice will depend on when the fermentation process is stopped, and will give a dry (≈1.004), medium (≈1.015) or sweet perry (≈1.025).

Bottling and Barrelling

Still Perry

Bottling and barrelling are final packaging processes as applied to still perry. All bottling and barrelling must take place within the geographical area; the perry is an unpasteurised "live" product and to maintain quality, traceability, temperature control and the avoidance of any contamination, transportation at this stage should be kept to a minimum which precludes widespread bulk transport before final packaging.

Sparkling: bottle conditioned and bottle fermented perry

Sparkling perry is produced in bottles. The sparkle is caused by dissolved carbon dioxide that can only be introduced naturally (by means of fermentation of yeast inside the sealed bottle) and not by artificial carbonation.

For bottle conditioned perry: (completion of primary fermentation within the bottle)

Whether keeved or not, the perry is bottled at the required specific gravity to give the required conditioning and sweetness in the bottle.

<u>For bottle fermented perry:</u> (secondary in-bottle fermentation). Bottle fermentation applies to the process of secondary fermentation of still perry within a sealed bottle.

Perry used for these processes is manufactured to the exact same specification as still perry prior to bottling. Bottles must be heavy-duty, punted and capable of being sealed with either a 29mm crown cap or a natural cork or plastic stopper with a wire cage closure, and able to withstand a sustained internal pressure of 6-12 bar at 25°C.

To start the secondary fermentation within the bottle the permissible additions (constituting the *liqueur de tirage*) are:

- fermentable sugar (glucose, fructose, sucrose) at a dose of between 12 and 26 grams per litre
- an active yeast culture so as to result in the equivalent addition of between 100 and 200 milligrams grams of dry yeast per 750 millilitres of perry.
- perry from the same batch
- yeast nutrients and riddling aids can be used if appropriate

The sealed bottles are stored horizontally, typically for a minimum of 1 year at a temperature of between 5° and 15° C.

Riddling can be carried out manually or by automated means. This is the process of quarter turning the bottles at least once each day so as to move the yeast sediment from the body of the bottle up to the neck. Each time the bottle is turned, initially from its horizontal position, it is also tilted a little more down towards its neck. The bottles are either held in a *pupitre*, a wooden A-frame with bottle-sized holes (for the manual process), or within a stillage cage mounted on an automated turner/tilting machine (gyropalette).

Disgorging can be carried out manually or by using an automated disgorging machine. This is the process that follows riddling. Once riddling has moved all of the yeast to the neck of the bottle, the neck of the bottle is frozen. The perry maker then removes the crown cap, and the pressure in the bottle ejects the frozen plug of perry containing the yeast. The bottle can then be corked, retaining a natural fizz, but without any yeast sediment.

Dosage is the term used for additions to the disgorged perry prior to applying the final closure. No dosage is permitted to "Traditional Welsh Perry" except to top up to the bottle's stated capacity using other in- bottle fermented perry from the same batch. The final closure can be either a 29mm crown cap or a natural cork or plastic stopper and wire cage. The described process of secondary in-bottle fermentation is the "Traditional Method" – "Modd Traddodiadol".

Commercial selling of Traditional Welsh Perry

"Traditional Welsh Perry" is produced and then sold as either still or sparkling. It is sold either in bottles, bag-in-box or five gallon (or larger) poly barrel containers to license holders (public houses, supermarkets, festivals, wholesalers etc.) or directly at Farmer's Markets, on-line and at agricultural shows and other events where there is a license in place or a license is held by the perry maker. Where a premises license is held by the perry maker they may sell directly to the public from the place of production.

The following processes are **not permitted** in the production of Traditional Welsh Perry, either before, during or after fermentation:

- the addition of water to dilute or hydrate
- the addition of pear or any other fruit concentrate
- the addition of fermentable sugars (chaptalization) note an exception is made for secondary in bottle fermentation
- the addition of non-fermentable sweeteners (artificial or natural)
- the addition of colour
- the removal of colour
- pasteurisation
- filtration using membrane
- artificial carbonation
- fining agents (such as *isinglass* or *bentonite*)

4.6 Link:

The growing of the perry pears, the production of juice, the fermentation process and final finishing of the perry all happens in the defined geographical area.

The unique characteristics of "Traditional Welsh Perry" are based upon it being the first pressed juice of indigenous and non indigenous perry pear varieties grown in the designated area. The perry is produced by a traditional method in the designated area from a skill base, that has developed throughout Wales as demonstrated by the geographical spread of the members of the Welsh Perry and Cider Society. "Traditional Welsh Perry" is made by fermenting the juice of perry pears from indigenous and non-indigenous varieties grown in Wales. "Traditional Welsh Perry" can be made from a single selected variety of perry pear, as many such varieties have a good balance of acid and tannin, but blends of mixed varieties are also made if the perry maker considers that a more balanced product will result. The individual variety of perry pear used in making "Traditional Welsh Perry" and their combinations influences the flavour of the final perry. Consequently there are a very wide variety of products which adds to the unique individual characteristics of this artisanal drink.

HISTORY OF PERRY MAKING IN WALES

The Geographical Area

By the nature of its soil and climate, lowland areas of Wales are highly suitable for perry pear growing and the production of perry which has a distinct character and flavour. In the classic treatise "*Perry Pears*" edited by L C Luckwill & A Pollard (University of Bristol 1963) the importance of the growing of perry pears for perry makers in Wales, predominantly in Monmouthshire, over the last 400 years was acknowledged. This is further emphasised through the experimental planting of perry pear trees within Monmouthshire between 1908 -1918 by the then National Fruit and Cider Institute at Long Ashton, supported through grants made by Monmouthshire County Council.

"Traditional Welsh Perry" differs greatly from those produced by other European nations, and although it has a similarity with the style of English perries there are differences in flavour due to the varieties and combinations of perry pears used. Generally "Traditional Welsh Perry" will be either clear or cloudy and have a prominent light or full fruity pear flavour balanced with natural sweetness and a citrus acidity, resembling the best qualities of white wine. Some possess a crisp dry finish while others have a predominantly sweet finish. The colour ranges between a pale almost colourless yellow to a dark gold.

The character and flavour of "Traditional Welsh Perry" also have subtle nuances depending on what area of Wales the perry is produced. At lower temperatures which may be dependent on latitude, microclimate and altitude, the frost can kill the blossom on trees, and so reduce the yield of the fruit trees, thus meaning majority fruit trees are found at lower levels. But conversely, at lower temperatures, fermentation is slower, as there is much greater retention of naturally occurring volatile aromatic compounds which is considered to enhance the flavour and aroma of the perry resulting in a prominent light or full fruity pear flavour with a clean crisp taste.

Much of eastern Monmouthshire has a red sandstone soil which is favoured by orchardists for growing perry pears, hence the county providing the majority of pears for Welsh producers. The deep alluvial soil has excellent moisture retaining properties whilst maintaining excellent drainage properties during times of above average rainfall. This combination is reputed to give a higher quality fruit, which is translated in the perry. Thus Monmouthshire is the centre of perry production in Wales with its own indigenous varieties and a history to match, but trees are found further north into Powys. "Traditional Welsh Perry" is made by fermenting the whole first pressed juice of perry pears that grow on trees, some of which can be over 300 years old.

The Climate

The Welsh climate is warm and sunny enough at the right times to produce sufficient levels of fruit sugars, and wet enough to satisfy the high water demands of established perry pears trees as well as being able to supply the needs of newly planted trees. Unlike upland areas, the lowland areas are more suitable because they do not often suffer frosts during the perry pear blossom time (April - May).

The Tradition of Perry making in Wales

A comprehensive history of perry making in Wales has yet to be documented. To date, authors have drawn their research only from references and documents written in the English language. It is, however, unquestionable that perry would have emerged in Wales at the same time as in England and followed a similar history.

Quoting from John Worlidge (Vinetum Britannicum, 1676)

"Besides Cider, there are many other curious Drinks that may be prepared out of British Fruits: as Perry, whereof is a great quantity made yearly in several places of this Kingdom"

Those places within the Kingdom, as previously indicated, would have been the southern border counties of Wales and England.

The advances in the production of perry in Wales from the seventeenth century mirrored those of cider but with certain important differences. Perry making like cider was traditionally a farm based activity but Perry was a more refined drink largely reserved for the gentleman farmer and his family whilst cider was supplied to the agricultural workmen often as part payment.

Farm production of Perry making declined in the 19th Century when farm production of cider declined and factory-based cider production was established. Perry making did not lend itself to factory production in cider factories as many of the factory methods used for cider making such as floating of the fruit within water channels to feed the mills could not be used for pears as pears sink in water and are required to be handled differently. This would have resulted in increased costs and made factory based perry production not cost effective. As a result the perry making tradition largely died out in Wales following the establishment of cider factories but many of the perry pear trees survived. A slow revival began with one perry maker established in 1976, and another in 1984. In 2001 the Welsh Perry and Cider Society was formed. The society encourages the dissemination of knowledge and expertise within its membership in the art and science of perry making, and of the planting and propagation of perry pear varieties. Currently there are approximately 20 perry makers throughout Wales ranging from the hobbyist to the full-time business, and the Society organises an annual Welsh Perry Championships.

Specific traditional making skills are required to make Traditional Welsh Perry. This knowledge and expertise is passed down from one Traditional Welsh Perry maker to the next.

Quoting from James Crowden (Ciderland 2008, Birlinns Ltd, Edinburgh)

"In many ways this [perry making] is similar to cider making because it uses the same equipment **but it is much more skilled**"

Traditional Welsh Perry makers have a very close relationship between the production of fruit and the production of their perry. Storing fruit can be problematic as some varieties soften and autolyse rapidly on ripening, so that timing of collection thence milling and pressing can be crucial. The biggest influence on these timings is the fruit variety. Thus the perry maker must have an intimate knowledge of the fruit varieties being used, and the detailed chronology of the harvest. As mentioned Traditional Welsh Perry may be made from the juice of a single variety of perry pear or from a blend of different varieties. Single varieties of perry are often produced as many perry pear varieties have intrinsic balance aided by the natural sweetness of many, imparted through the presence of unfermentable sugars. However, the blending of fruit varieties prior to and after fermentation is another part of the perry maker's skill. Some high tannin perries require prolonged storage of fermented juice to allow precipitation, or alternatively the fruit can be subjected to oxidation through maceration (allowing the milled pulp to stand prior to pressing) if suitable equipment for this process is available to the perry maker.

"Traditional Welsh Perry" has won several awards recognising it as a quality product;-

- 2008 Welsh Perry won the True Taste of Wales "Alcoholic Drink Product" category,
- 2011 won the Herefordshire Big Apple "Best in Competition"
- 2012 won the Bath and West Show "Laurence Riley Cup" for best perry in the show.

4.7 Inspection body:

City & County of Swansea Trading Standards The Guildhall Swansea SA1 4PE Trading.standards@swansea.gov.uk

4.8 Labelling: