

SPECIFICATION

COUNCIL REGULATION (EC) No1151/2012 on protected geographical indications and protected designations of origin “Traditional Welsh Cider”

EC No:

PDO () PGI (x)

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: Producers/processors (44) Other ()

3 Type of product

Class 1.8. other products of Annex I of the Treaty (spices etc.)

4 Specification

4.1 Name:

“Traditional Welsh Cider”

4.2 Description:

“Traditional Welsh Cider” (in Welsh “Seidr Cymreig Traddodiadol”) is cider made in Wales from first-pressed juice of cider apples from any indigenous and non-indigenous apple varieties grown in Wales to a traditional production method. Traditional Welsh Cider may be made from a blend or a single variety of first pressed apple juice. “Traditional Welsh Cider” is made from 100% pure cider apple juice.

Cider apple varieties used in “Traditional Welsh Cider” are categorised as Bitter Sweets, Sharps, Sweets and Bitter Sharps. Blending skill is required to balance the tannins of the “Bitter Sweet” varieties with the acidity of the “Sharps”. “Bitter Sweets” contain tannins that give bitterness and a darker colour and produce a full bodied drink. Sharp varieties contain high levels of malic acid giving the cider a sharp “bite”. “Sweet varieties have low levels of tannins and acids but can add fruitiness and dilute the effect of the any harsh tannins. “Bitter Sharps” contain both acids and tannins. Blending these characteristics requires skill and is based on the taste of each cider maker.

The colour of Traditional Welsh Cider varies from light to dark gold, with shades of red and bronze depending on apple varieties used. Traditional Welsh Cider can be either clear or cloudy, but is typically semi opaque with alcohol strength which ranges between a minimum of 3.00% to a maximum of 8.49%.

Traditional Welsh Cider has a clean crisp taste with sweetness levels which range from extremely dry to very sweet. It is prominently fruity with a balance of malic acidity and tannins. Although not usually measured, tannins and acidity are judged to individual cider makers' style and preference.

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

Still: this is cider with no carbonation above atmospheric pressure. Stored in an airtight container the partial pressure of carbon dioxide (CO₂) 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. Cider 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 cider rises from its stored temperature as the solubility of CO₂ decreases as the temperature rises.

Bottle conditioned: a natural carbonation is introduced by bottling the cider prior to the completion of the primary fermentation. The cider 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 cider 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 cider 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 Cider" 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 Cider" can be in the range of still cider (from 3.00% to a maximum of 8.49% ABV) on average bottle conditioned cider, 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 cider at the completion of the primary fermentation and inducing a second fermentation by the

addition of fermentable sugar and yeast. Bottle fermented cider 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 cider will be in the range of 4.0-6.0 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 cider's alcoholic strength can be in the range of still "Traditional Welsh Cider" (from 3.00% to a maximum of 8.49% ABV) on average bottle fermented cider 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 Cider 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 should not be more than 200mg/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 – is permissible when using the 'keeving' method.

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

4.3 Geographical area:

The country of Wales.

4.4 Proof of origin:

Cider makers keep full records of where the apples for each batch 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 cider 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 cider 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
- l) batch identity
- m) pre fermentation data
- n) post fermentation data

The following procedure is noted and recorded during fermentation:

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

Any specific gravity (SG) 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 cider 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:

Apples either fall or are shaken from trees onto the ground and are collected by hand or machine. Apples 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 cider maker and will vary between cider makers, however any apples that are significantly damaged or rotten would be discarded. Apples may be stored to ripen for several weeks. Traditionally in Wales they are piled up under the trees, or 'tumped'. 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 apples are transported to the mill in containers (often nets or sacks) or loose in trailers.

Juice Production

When the apples arrive at the mill they are washed, unless the quality of the fruit is such that cleaning is not required, for example when apples are derived from organic orchards and would not have been exposed to any artificial sprays or chemicals. Any damaged fruit is removed by hand before pulping occurs.

The apples are milled into a pulp by machine. Machinery used varies between cider makers, but are all based on the scrapper mill principle. A scrapper chops up whole fruit into a pulp form, which is then pressed to extract the juice.

The juice for Traditional Welsh Cider consists of 100% first pressed pure apple juice from cider apple varieties only. The only additives permitted in making Traditional Welsh Cider 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 apples, and are also found in the air pockets within the fruit. As the apples 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 – 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 should not be more than 200mg/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: It is permissible to produce a naturally sweet cider using the 'keeving' method. This involves adding a mixture of calcium chloride salt and pectin esterase enzyme to the fermenting cider to reduce its yeast and yeast nutrient content.

Fermentation

The 100% first pressed fruit juice is fermented in sealed food-grade containers of wood, plastic or stainless steel, using airlocks 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 a naturally slow fermentation procedure which can last between 3 and 8 months. Cider makers keep a check on the progress of fermentation by taking the specific gravity (SG) of the juice/cider from time to time - this is a measure of the remaining sugar. The cider may be racked: this is a process that removes the supernatant cider 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 cider exceeds the minimum of 3.00% ABV. Early racking may result in the preservation of some of the naturally fermentable sugars resulting in a sweet cider. Unfermented first pressed apple 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 cider (≈1.025).

Bottling and Barrelling

Still Cider

Bottling and barrelling are the final packaging processes applied to still cider.

All bottling and barrelling of “Traditional Welsh Cider” must take place within the geographical area; the cider 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 cider

Sparkling cider 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 cider: (completion of primary fermentation within the bottle)

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

For bottle fermented cider: (secondary in-bottle fermentation). Bottle fermentation applies to the process of secondary fermentation of still cider within a sealed bottle.

Cider used for this process is manufactured to the exact same specification as still cider 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 cider.
- cider from the same batch
- yeast nutrients and riddling aids can be used if appropriate

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, 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 automatic 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 cider maker then removes the crown cap, and the pressure in the bottle ejects the frozen plug of cider 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 cider prior to applying the final closure. No dosage is permitted to Traditional Welsh Cider except to top up to the bottle's stated capacity using other in-bottle fermented cider 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".

"Keeving" is not an option for the secondary fermentation process as there is a need for the addition of viable yeast to induce the second fermentation and this would ferment the residual natural sugars remaining after "Keeving".

Commercial selling of Traditional Welsh Cider

"Traditional Welsh Cider" 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 cider maker. Where a premises license is held by the cider 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 Cider", either before, during or after fermentation:

- the addition of water to dilute or hydrate
- the addition of apple 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:

“Traditional Welsh Cider” is made by fermenting the juice of apples grown in Wales from indigenous and non-indigenous varieties. The growing of the cider apples, the production of juice from first press, the fermentation process and final finishing of the cider all happens within the defined geographical area.

The unique characteristics of “Traditional Welsh Cider” are based upon it being the first pressed juice of indigenous and non-indigenous cider apple varieties grown in the designated area. The cider 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 Welsh Perry and Cider Society members.

The variety of cider apples used in making “Traditional Welsh Cider” influences the flavour of the cider, together with the use of only the first pressed apple juice. Consequently, no two batches (cuvees) are ever exactly the same which adds to the unique individual characteristics of this artisanal product. In other parts of the UK a second pressing may occur following rehydration of the pomace (dry residue) following the first pressing, alternatively juice may be chaptalized (sugar added) leading to subsequent fermentation to a higher alcohol content, then subsequently diluted with water.

HISTORY OF CIDER MAKING IN WALES

The Geographical Area

By the nature of its soil and climate, lowland areas of Wales are highly suitable for cider apple growing and the production of cider which has a distinct character and flavour. The undulating landscape allows the selection of orchard sites which avoid frost pockets in early spring during blossom time. There is a plentiful rainfall essential during both blossom time and also during the autumn prior to harvesting. Traditional Welsh Cider will be either clear or cloudy, have a prominent fruity apple flavour balance with natural sweetness, tannin and acidity with some possessing a dry finish. The colour of Traditional Welsh Cider ranges from light to dark gold, with shades of red and bronze depending on apple varieties used. It can be either clear or cloudy, but is typically semi-opaque. The character and flavour of Traditional Welsh Cider also has variations depending on what area of Wales the cider is produced. At lower temperatures, which may be dependent upon latitude, microclimate and altitude, there is a frost risk at blossom time leading to reduced yields but conversely fermentation is slower, which is considered to enhance the taste of the cider.

Much of eastern Monmouthshire has a red sandstone soil which is favoured by orchardists for growing cider apples, hence the county providing the majority of apples 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 cider. Monmouthshire is the centre of cider production in Wales with its own indigenous varieties and a history to match. Cider made in this region of Wales may have a proportion of juice of cider apples grown on trees that can be anything up to 150 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 cider apple trees as well as being able to supply the needs of newly planted trees.

The Tradition of cider making in Wales

The appearance of 'cider' in Wales in the 14th century seems to correspond with the linguistic evidence; the word cider having passed into the English Language from the

French 'sidre'. This word in turn was derived from the Latin *sicera* and the Greek *sidera*, words chosen by translators of the Bible for the Hebrew word *shekar* meaning strong drink. The word *seidry* appears in the first Welsh dictionary (published by William Salesbury in 1547) meaning drink made from apples. The first reference to cider in the Welsh language appears in a 'cywydd' (a poem in strict metre unique to Wales) by Iolo Goch, which probably dates from the second half of the fourteenth century. It is known that cider making had spread to Herefordshire by the fourteenth century and it seems likely that the practice would have extended from there into what are now the Welsh border counties. There were close social and economic links between Hereford and Wales at that time – indeed a national boundary as such did not exist, and large parts of western Herefordshire were, in fact, Welsh speaking.

By the sixteenth century cider making had become well-established in Monmouthshire at least, and the area around Chepstow had gained great fame for the quality of its produce. The pre-eminence of Chepstow not only rested on its proximity to the cider apple producing areas of Wales, but also to its proximity to the village of Penallt on the Welsh bank of the Wye south of Monmouth – a nationally renowned area for millstone production essential then for the method of milling cider apples. By the following century Chepstow had begun exporting cider to Bristol, a trade which appears to have continued for at least a hundred years. Similarly, inventories of the period refer to cider making in the Vale of Glamorgan. It is also important to note that cider appears to have been known outside what we now think of as the traditional cider-making areas of south-east Wales. The papers of the Mostyn estates in north-east Wales, for example, refer to the widespread growing of apples apparently for cider making. South-east Wales and the counties along the English border were, however, the real cider-making areas and were recognised as such by the early eighteenth century.

It is towards the end of the nineteenth century that figures indicating the extent of apple-growing in the Welsh counties were made available. Figures published in the Journal of the Royal Agricultural Society of England in 1878 showed that vast areas of Wales contained orchards.

The commercialization of cider production was based largely in Herefordshire and confined to the gentry and the largest farmers who 'rivalled each other in their cyder'. In marked contrast the mass of the farming population of Wales were concerned only

to produce enough cider for their own use, and it is to this latter tradition that Traditional Welsh Cider firmly belongs. In Wales it was almost exclusively a domestic undertaking; commercial cider making on any scale simply did not exist, and what little trade there was took place locally between neighbouring farms or with nearby public houses.

Toward the end of the nineteenth century, not many Welsh farmers went to the expense of purchasing a more modern scrapper mill of their own for crushing their apples to replace the now obsolete and cumbersome stone mills. Instead they would take their apples to the neighbouring farm so equipped, or rely on the services of an itinerant cider maker. There are records of many smallholders supplementing their income from farming by making cider in this way. Skills in cider making were traditionally learned passed on this way, and the same principles are evident among cider makers in Wales today. New cider makers often learn their skill from another; frequently sharing equipment until they are able to afford their own.

Specific cider making skills are required throughout the milling, pressing and blending stages. For example specific skill is required in blending the varieties in order to balance the tannins of the 'Bitter Sweets' with the acidity of the 'Sharps'. 'BitterSweet' varieties contain tannins that give bitterness and a darker colour, as well as a full-bodied drink. 'Sharp' varieties contain high levels of malic acid, giving the cider a sharp 'bite'. 'Sweet' varieties have low levels of tannin and acid, but can add fruitiness, and can dilute the effect of any harsh tannins. 'Bitter Sharp' varieties contain both tannins and acid. Tannins are not normally measured, but rather a juice is blended to taste of each cider maker. Cider making in Wales still largely remains a business that often supplements another main income.

In the late nineteenth century cider was widely drunk in Wales, and was a staple drink of the agricultural population, with most farm labourers insisting upon it, taking it as part payment of wages. Examples of the wooden costrels (drinking containers) can be seen in the Welsh Folk Museum. This farmhouse-style cider, and its traditions still have strong links to the product that's made by cider makers in Wales today, using the fruit from local farms and the same basic, yet refined techniques as were used over 150 years ago.

The cider making tradition had largely died out in Wales with only one cider maker established in 1976. In 2001 the Welsh Perry and Cider Society was formed and today there are approximately 50 cider makers in Wales ranging from the hobbyist to the full-time business. In 2003 the Welsh Perry and Cider Society's work was recognised by the Campaign For Real Ale (CAMRA), winning their Pomona Award in 2003 for "their outstanding work raising the profile of Welsh Real cider". The annual Welsh Cider Championships have raised standards and in 2005 Welsh cider makers scooped all the main awards at The UK Championships in Reading, winning Champion Perry, Cider and Bottled Cider.

In 2009, the Welsh Perry & Cider Society was given the annual award of recognition by the Asturian Cider Foundation in Spain. This was for the Society's merits and innovations in promoting the production of craft cider; raising awareness of traditional cider; and their dedication in maintaining the cultural heritage associated with the conservation and regeneration of native apple varieties through the creation of a gene bank at their museum orchard.

In recent years the quality and rise of Traditional Welsh Cider has been recognised in both local and national press where it is recorded that: '...cider-making in Wales is undergoing a revival'. Although production has been traditionally centred around the Monmouthshire and Radnorshire areas there are now around 19 pressers dotted across the country, producing more than 50 different varieties' and the tradition of cider from small producers lives on and the nation is slowly creeping to the forefront of cider production'.

4.7 Inspection body:

City & County of Swansea

Trading Standards

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4.8 Labelling: