

SUMMARY

Council Regulation (EC) No 510/2006 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs

"ČESKÉ PIVO"

EC No: CZ/PGI/005/00375/14.10.2004

PDO () PGI (X)

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

1. RESPONSIBLE DEPARTMENT IN THE MEMBER STATE:

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2. GROUP:

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Composition: Producers/processors (X) Other (X)

3. TYPE OF PRODUCT:

Class: 2.1 Beer.

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

4.1. Name:

"České pivo"

4.2. Description:

The distinctive nature of "České pivo" is imparted by a number of factors, particularly the raw materials used, the know-how built up by the brewing industry over many years and the special brewing processes. Noteworthy features of "České pivo" production are the decoction mashing process, wort boiling and two-stage fermentation. The entire production process (carefully selected raw materials, malting process and preparation of the beer in the traditional area of the Czech Republic) gives rise to a specific and unique product with a high reputation.

The technical parameters for "České pivo" are set out below. The beer can be distinguished by the fact that it is dominated by malt and hops, only a tinge of pasteurisation, yeast or ester is acceptable and no foreign tastes or odours are permissible. The less intense overall aroma of "České pivo" derives from the relatively low content of undesirable by-products of fermentation. The beer has a medium to strong sharpness, with slow release of carbon dioxide. The beer is likewise medium- to full-bodied, mainly due to the content of unfermented residual extract associated with the difference between the apparent and actual attenuation. Lower attenuation also means lower alcohol content. One very important characteristic of "České pivo" is its bitterness. The degree of bitterness of the beer is medium to highish, with a moderate to light tartness, which takes longer to fade. The bitterness lingers longer in the mouth, stimulating the taste cells for longer. The higher degree of bitterness also aids the digestive process. A higher concentration of polyphenols and a higher pH value are further features of "České pivo".

Pale beer (pale lager, pale draught beer and light beer) has a weak to medium aroma of pale malt and hops. It is of a golden colour of medium to higher intensity. The beer is sparkling and, on being poured into a glass, forms a compact white head. Dark beer (dark lager and dark draught) has a distinctive aroma of dark and coloured malts. It has a medium sharpness, with a characteristic full body on account of the substantial difference between the apparent and actual attenuation and the presence of unfermentable substances in the raw materials from which the beer is brewed. The bitterness is influenced by the full body of the beer. Secondary caramel and sweetish tastes and odours are permissible.

Quality parameters

Pale lager

- Original hopped wort extract: 11.00-12.99 (% by weight)
- Alcohol content: 3.8-6.0 (% by volume)
- Colour: 8.0-16.0 (EBC units)
- Bitter substances: 20-45 (EBC units)
- pH value: 4.1-4.8
- Difference between apparent and actual attenuation: 1.0-9.0 (% rel.)
- Polyphenols: 130-230 (mg/l)

Dark lager

- Original hopped wort extract: 11.00-12.99 (% by weight)
- Alcohol content: 3.6-5.7 (% by volume)
- Colour: 50-120 (EBC units)
- Bitter substances: 20-45 (EBC units)
- pH value: 4.1-4.8
- Difference between apparent and actual attenuation: 2.0-9.0 (% rel.)

Pale draught

- Original hopped wort extract: 8.00-10.99 (% by weight)
- Alcohol content: 2.8-5.0 (% by volume)
- Colour: 7.0-16.0 (EBC units)
- Bitter substances: 16-28 (EBC units)
- pH value: 4.1-4.8
- Difference between apparent and actual attenuation: 1.0-11.0 (% rel.)

Dark draught

- Original hopped wort extract: 8.00-10.99 (% by weight)
- Alcohol content: 2.6-4.8 (% by volume)
- Colour: 50-120 (EBC units)
- Bitter substances: 16-28 (EBC units)
- pH value: 4.1-4.8
- Difference between apparent and actual attenuation: 2.0-11.0 (% rel.)

Light beer

- Original hopped wort extract: max. 7.99 (% by weight)
- Alcohol content: 2.6-3.6 (% by volume)
- Colour: 6.0-14.0 (EBC units)
- Bitter substances: 14-26 (EBC units)
- pH value: 4.1-4.8

- Difference between apparent and actual attenuation: 1.0-11.0 (% rel.)

4.3. Geographical area:

The "České pivo" production area is defined as follows:

- south-west: Chebská pánev, Český les, Šumava, Blanský les and the foothills of the Novohradské hory;
- south: Třeboňská pánev, southern edge of Českomoravská vrchovina, and the River Dyje and River Morava beyond Hodonín;
- south-east: western and northern edges of the Bílé Karpaty protected landscape area;
- east: western, northern and south-eastern edges of the Beskydy protected landscape area;
- west: the River Ohře, Mostecká pánev and the River Elbe as far as Děčín;
- north-west: the River Ploučnice, the River Kamenice and the Lužické hory;
- north: Liberecká pánev, the southern slopes of the Krkonoše, the Broumovské hory and the southern slopes of the Orlické hory;
- north-east: foothills of Kralický Sněžník, the Rychlebské hory and Zlatohorská vrchovina, the River Opavice up to its confluence with the River Opava, the River Opava up to its confluence with the River Oder, the River Oder up to its confluence with the River Olše, the River Olše up to its confluence with the River Lomná and the River Lomná up to the Beskydy protected landscape area.

The geographical indication "České pivo" contains the name of the country since, chiefly through the specific production method that has been typical of the defined area for centuries, "České pivo" is linked with virtually the entire area of the present-day Czech Republic. For centuries, bottom-fermented, fully matured beer has been continuously brewed here predominantly by the same method, which combines decoction mashing, wort boiling, actual boiling of the hops and separate two-stage fermentation (see Section 4.5). "České pivo" typically has a higher proportion of unfermented extract, a higher polyphenol content, a higher pH value and a more distinctive colour, bitterness and sharpness than other beers.

Through the specific features of the production method used, from which "České pivo" derives its characteristic properties, the reputation of the beer and the name "České pivo" have spread both nationally and abroad and the product has become unequivocally linked with the place where it is produced, namely the Czech Republic.

The importance of the concept and the reputation of the quality of "České pivo" are also confirmed by the fact that this name was included in the list of protected designations in the 1985 Agreement between the Governments of the Czechoslovak Socialist Republic and the Portuguese Republic for the protection of indications of source, appellations of origin and other geographical and similar designations. At

that time, the defined area was only part of the country as a whole. It made up most of the area of an independent state following the dissolution of the Czech and Slovak Federal Republic. Consumers throughout the world unequivocally link the name "České pivo" not only with the place where it is produced, i.e. the Czech Republic, but also, in particular, with its specific characteristics and quality.

The applicant for registration of the geographical indication "České pivo" is the association of producers brewing the beer practically throughout the Czech Republic. The characteristics and reputation of "České pivo" have unquestionably been influenced by the invaluable experience acquired over many years by Czech maltsters and brewers and handed down from generation to generation in the defined area of the Czech Republic.

In terms of surface area, the Czech Republic ranks among the small European states. Now, as in the past, its small size and relief make it possible to ensure compliance with production conditions – the technology and raw materials used, as well as producers' skills – throughout the defined area.

In view of the facts set out above and, in particular, owing to the typical and traditional methods of beer production, which differ from those employed in the surrounding areas, the inimitable taste and characteristic properties of the beer (see Section 4.2) and its renown extending far beyond the boundaries of the defined area, the homogeneity of the defined territory is clear and indisputable.

Hops

The largest hop-growing area in the Czech Republic is Žatecko, with 355 hop-growing municipalities in the districts of Louny, Chomutov, Kladno, Rakovník, Rokycany and Plzeň-sever, followed by Ústěcko with 220 hop-growing municipalities in the districts of Litoměřice, Česká Lípa and Mělník, and Tršicko with 65 hop-growing municipalities in the districts of Olomouc, Přerov and Prostějov.

The Czech hop-growing areas are at transition points between temperate oceanic and continental climates. Moreover, the Žatecko area lies in the rain shadow of the Krušné hory and Český les, which creates unique conditions in this area.

Various soil types (chernozems, rendzinas, brown earths and brown soils) can be found in the Czech hop-growing areas, together with various soil classes (sandy soil, loam soil and clay soil). These soils were formed on various petrographical-geological substrates.

In the Žatecko hop-growing area, the majority of hop gardens are located on soils originating in strata of the Permian geological formation. These soils, which are known as Permian red beds, contain a considerable amount of iron compounds (6-7% iron oxide), manganese and compounds of other metals.

The eastern part of the Ústěcko hop-growing area is located on a Tertiary Cretaceous formation and the central part, Polepská blata, lies on Quaternary sediments. In the western part of the Ústěcko area there are numerous basaltic volcanic rocks.

The soils of the Tršicko hop-growing area are mainly of Quaternary and partly of Tertiary origin.

The Permian red soils of the Žatecko hop-growing area are considered to be the best soils for fine quality hops. These are mostly clay-loam soils which, after being worked to some depth, have a good capacity for absorbing water and air and a substantial soil nutrient sorption. A slightly acid to neutral soil is best for hop growing. The suitability of the soils for hop growing is determined not only by their natural properties but also, to a large extent, by the level of soil amelioration and development, by the amount of organic and mineral fertilisers applied and by other long-term treatment creating favourable conditions for hop growth and development.

4.4. Proof of origin:

Every beer producer keeps a list of the suppliers of all its raw materials. The origin of the raw materials can be found in the delivery notes. Moreover, traceability of the origin of hops grown in the Czech Republic is a requirement under Act No 97/1996 Coll. A list of purchasers of the final product is also kept. All product packaging gives the compulsory details concerning the producer and the product itself. This ensures accurate traceability of the product. The production process itself is carefully and precisely controlled, and the details of each batch are recorded so that the origin of all raw materials used in each batch of "České pivo" produced can subsequently be traced. Compliance with the specifications is monitored by the local branch of the Czech Agriculture and Food Inspection Authority.

4.5. Method of production:

Raw materials for beer production:

Malt - A pale malt also known as "Pilsener malt", which is produced from spring two-row barley, is used. The barley varieties used to produce the malt are derived from cultivated varieties approved by the Czech Agriculture and Food Inspection Authority in Brno and recommended by the Research Institute of Brewing and Malting in Prague for the production of "České pivo" (for overall details of congress wort, see table below).

The current international and European quality requirements for brewing barley give preference to varieties with high enzymatic activity, high extract content and high final attenuation values. On the other hand, lower proteolytic and cytolytic modification and the degree of attenuation resulting in the presence of residual extract are characteristic of "České pivo". On that basis, the following fundamental parameters have been specified for varieties suitable for "České pivo" production:

Extract in dry malt	(% by weight)	min.	80.0
Kolbach Index	(%)		39.0 ± 3
Diastatic power	(WK units)	min.	220
Actual attenuation	(%)	max.	82

Friability	(%)	min.	75.0
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Czech hops and processed hop products are used, particularly the varieties grown in selected areas of (1) Žatecko, (2) Ústěcko and 3) Tršicko. The hops are grown in loam to clay-loam soils. Permian red soils are typical of the Žatecko region. The most favourable average annual temperature for hop growing is 8-10°C.

The hops are quite distinctive and differ from hops grown elsewhere in the world, chiefly on account of their ratio of alpha-bitter to beta-bitter acids. While the ratio for commonly grown varieties is generally 2.5:1, that for the hops grown in this area is on average 1:1.5. Another feature which distinguishes them from other hops is the beta-farnesene content of 14-20% of the total essential oils. The hop varieties cultivated in the area concerned and, in general, all hop varieties for "České pivo" production must be approved by the supervisory authorities and recommended by the Research Institute of Brewing and Malting.

Water - For production of "České pivo", water from local sources is used. The hardness of the water used for brewing is assessed as soft to medium-hard.

Brewer's yeast – Bottom-fermenting yeast strains (*Saccharomyces cerevisiae* subsp. *uvarum*) which are suitable for "České pivo" production and result in the difference between apparent and actual attenuation laid down in the specification are used. The most frequently used strains are Nos 2, 95 and 96, which are included in the collection of reproduction strains of brewer's yeasts of the Research Institute of Brewing and Malting under registration No RIBM 655 and are available to all producers of "České pivo".

Production:

Beer production starts at the brewing house, where ground malt is mixed with water and mashed, which converts the unfermentable starch into fermentable sugars. The mashing process itself employs a one-mash to three-mash decoction method; infusion mashing is not used. At least 80% of the total malt grist is made up of malt produced from approved varieties, which guarantees the taste profile of "České pivo".

The composition of the malt grist, including the quantity processed, is recorded in the brewing log and the origin of the malt is evidenced by the delivery notes. The temperature and mashing time also are recorded in the brewing log. After the mashing process has been completed and insoluble particles of malt have been separated through a process known as lautering, preparation of the wort by boiling it with the hops begins. During this phase, which takes 60 to 120 minutes, an evaporation rate of at least 6% must be achieved. Hops can be added in up to three stages. The minimum quantity of Czech hops or products processed from them is 30% for pale lagers and at least 15% for other types of beer. The composition of the hops, including the composition of the batch of raw materials, is recorded in the brewing log; the origin of the raw materials is evidenced by the delivery notes. After wort boiling has finished, the hopped wort is cooled down to a pitching temperature of 6-10°C and aerated. Brewer's yeast used exclusively for bottom fermenting (*Saccharomyces cerevisiae* subs. *uvarum*) is then added.

Fermentation takes place at a maximum temperature of 14°C and this technological process is normally separated from secondary fermentation, i.e. two-stage fermentation is used. The temperature pattern during fermentation is recorded in the fermentation log. The secondary fermentation process takes place at temperatures close to 0°C. On completion of the process of maturation by secondary fermentation in tanks, the beer is filtered and casked, bottled, canned or tankered. It is also possible to make unfiltered beer. The final product must comply with the quality parameters indicated in Section 4.2.

The entire beer production technology is continuously monitored.

Monitoring method:

Wort:

Extract from first wort - sampling 10 minutes after the start of lautering.

Determination of extract: pycnometrically, using a saccharimeter or special apparatus (A. Paar or other apparatus suitable for measuring the extract).

Wort clarity at 25°C - nephelometrically at 25°C, measurement after 30 minutes of tempering.

Measurement of extract from last wort at 25°C - extract measured by the same method as the extract from the first wort.

Hopped wort:

Extract from hopped wort - sampling 15 minutes after the end of wort boiling.

Determination of extract - pycnometrically, using a saccharimeter or special apparatus (A. Paar or other apparatus suitable for measuring the extract).

Settleable solid content - visual check on stirred hopped wort 5 minutes after the end of wort boiling in an Imhoff cone or other small receptacle in which settleable solid content can be assessed.

Hopped wort clarity – the hopped wort is filtered (analytical filter paper, blue strip) and the filtrate is used for nephelometric determination at an angle of 90°. The measurement is carried out partly at 20°C (heating for 20 minutes) and partly at 5°C (heating for 20 minutes).

Determination of bitterness of hopped wort - content of iso- α -bitter acids (IBU).

Actual attenuation of hopped wort - determined by a recommended method.

Green beer:

Microscopic determination of the number of yeast cells in the fluid.

Determination of yeast viability (using methylene blue dye).

Determination of iso- α -bitter acids (IBU) by recommended methods.

Finished beer:

Basic analysis - apparent and actual extract, alcohol content, calculation of extract in original wort, determination of iso- α -bitter acids (IBU), beer clarity at an angle of 90°, actual attenuation and beer colour.

Checks are carried out by brewery laboratories or by a specialised laboratory (e.g. the Research Institute of Brewing and Malting) in accordance with the analytical standards for the brewing and malting industries or the Analytica-EBC.

4.6. Link:

It is clear from archaeological finds that beer was already produced by the inhabitants of the defined geographical area (hereinafter referred to as the "area concerned") prior to the Slavs, and by the Slavs themselves. The first records of beer brewing in the area concerned are linked to the Břevnovský klášter (Břevnov Monastery), where Benedictine monks were producing beer and wine in 993 AD.

The oldest record of hop growing in the area concerned is the foundation charter by which Prince Břetislav I granted a tithe on hops grown in Žatec, and Stará and Mladá Boleslav to the Chapter of St Wenceslas in Stará Boleslav. The first historical document directly connected with beer production is the foundation charter of the Vyšehrad Chapter, which was issued by the first Bohemian King, Vratislav II, in 1088. This document, transcripts of which have been preserved, refers to a hop tithe and other gifts, such as real estate and payments, granted to the canons of the Vyšehrad Chapter. Many other documents dating from 1090 to 1100 deal with hop growing, malt, beer, brewing licences and beer exports. From 1330 onwards, there are many records of malting and brewing in royal, noble and civic documents.

The brewing process was passed down from generation to generation. Initially, beer production was a privilege enjoyed by individuals (e.g. burghers with a licence to brew and nobles). In the 14th century, guilds of maltsters and brewers were founded and beer production by bottom and top fermenting continued to grow swiftly, culminating in the establishment of the industrial breweries which have carried on the tradition of "České pivo" to the present day. An important landmark was the foundation of the Burghers' Brewery in Plzeň in 1842.

Beer production by bottom fermentation was further improved and the typical characteristics of this beer were entirely different from the beers produced until that time. This golden, sparkling beverage with a pleasant hop taste and fine compact head spread throughout the world. This marked the beginning of a new era in the development of the world brewing industry, which grew at an unprecedented rate not only in the Czech lands, but also in Austro-Hungary, Germany and other European countries. In the decades which followed, numerous breweries were founded, all fully equipped with the most modern technology. Gradual improvements in machinery and technology have resulted in the modern large-scale production of today. The basic principle has, however, remained the same. The beer, for which mainly local raw materials were and still are used (i.e. raw materials originating in the area concerned, with its specific soil and climatic conditions), has won respect and built up a strong position at home and abroad. Its popularity is

confirmed by numerous records of exports of "České pivo", not only in the past but also at the present time.

"České pivo" is produced by the method described above, which is based on the skill of Czech brewers, exclusively in the area concerned, mainly from local raw materials of the specified quality together with local water sources. All this gives "České pivo" specific properties which result from its unique composition.

Studies conducted by the Research Institute of Brewing and Malting in Prague have demonstrated that "České pivo" differs substantially from foreign beers. Selected Czech and foreign beers were subjected to a meticulous analytical and sensory assessment.

A detailed analytical and statistical model, which made it possible to identify similarities and differences between various beers, was devised. The results were processed using multidimensional statistical methods (factor, dispersion and cluster analysis, etc.). It was demonstrated that "České pivo" can be differentiated from foreign beers in the same category.

In most cases "České pivo" contains residual (unfermented) extract, which is one of its most typical attributes. Other features which distinguish it from foreign beers are its higher colour, level of bitterness, pH value and polyphenol content. The stronger colour and higher polyphenol content are the result of the decoction mashing process most commonly used in the Czech Republic. All these parameters are determined by the quality and composition of the raw materials and the technical and technological conditions. From a technological point of view, the composition of the malt grist, the hop rate, the yeast strain selected and the method of fermentation used, all combined with the brewing tradition and the human factor, are the predominant features. From a sensory point of view, "České pivo" can be defined by its fuller body, higher degree of bitterness, the fact that the bitterness takes longer to fade and the lower incidence of foreign odours and tastes.

The uniqueness of this beer production is the result of a centuries-old tradition of beer brewing in the area concerned and the handing-down from generation to generation of this craft in its specific form until the present day. Favourable conditions for growing hops in the area concerned, combined with the high professional skills acquired by workers through their studies at Czech schools of all levels, guarantee the excellent reputation of "České pivo" throughout the world. The name "České pivo" was already specified in the annex to the agreement between the Governments of the Czechoslovak Socialist Republic and the Portuguese Republic for the protection of indications of source, appellations of origin and other geographical and similar designations. This agreement was published in Decree of the Minister of Foreign Affairs No 63/1987 Coll. of 18 May 1987.

In 2003 Czech Tourism conducted a survey on the perception of the Czech Republic and the reasons given by tourists for choosing it as a destination. The target group consisted of tourists from Germany, Austria, Poland, Italy, Netherlands, United States, Japan, Scandinavian countries, Russia, South Korea and Arab countries. A total of 1 800 respondents were surveyed (150 respondents from each country or group of countries). Men made up 66% of the sample. The survey found that the Czech Republic is primarily associated with Prague (47%) and excellent beer

(45%). The question was: "When I hear the name "Czech Republic", the first thing that comes to my mind is ..."

The popularity of "České pivo" is also demonstrated by the steadily growing exports.

4.7. Inspection body:

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4.8. Labelling:

The designation "České pivo" forms part of the brand name on the main label of the product.

Nothing in the specification of "České pivo" is aimed at preventing reference to production in the Czech Republic in the case of beers which are not classified as "České pivo" in compliance with national and Community requirements. Such references should not, however, form part of the brand name on the main label of such beers.

Any references to "PGI", "Protected Geographical Indication" and the corresponding Community symbol must be clearly connected with the term "České pivo" and must not create the impression that any other terms on the label are registered.