

Technical file

Bayerischer Gebirgsenzian

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Geographical indication to be registered **Bayerischer Gebirgsenzian**

Category of the spirit drink Gentian spirit

Description of the spirit drink

‘*Bayerischer Gebirgsenzian*’ is made in Bavaria from gentian roots grown mostly in the Bavarian Alps, the Alpine foothills of Bavaria, or the Bavarian Forest.

- Physical, chemical and/or organoleptic characteristics
 - = Alcohol content of the ready-to-drink spirit: at least 40 % by volume
 - = Clarity: clear
 - = Colour: water-white or, for products matured in wooden barrels, yellowish, reddish or brownish, depending on the type of wood used.
 - = Odour: typical, gentian-like odour and spicy
 - = Taste: typical, earthy flavour

- = Food additives or other substances used: ethyl alcohol of agricultural origin to be mixed, where appropriate, with distillate of gentian and water for reduction to drinking strength.
- Specific characteristics (compared with spirit drinks of the same category)
- = Minimum alcohol content of 40 % by volume higher than that of gentian spirit (37.5 % by volume).
- = No dyes are used.
- = Sweeteners are added neither to the distillates nor to the finished products.
- = The gentian roots used are grown mostly in the regions of Bavaria specified in the 'Geographical area concerned' section.
- = The reason why 'Bayerischer Gebirgsenzian' has different organoleptic properties from those of products made in other countries is its reduced content of various flavour-affecting fermentation by-products such as n-propanol, ethyl acetate, methanol and 2-methyl-1-propanol, for example, which impart sweet/aromatic, sometimes musty/floral notes to the earthy/spicy flavour of 'Bayerischer Gebirgsenzian' and soften its alcoholic sharpness as a result of esterification processes, in particular during storage.

Geographical area concerned

'*Bayerischer Gebirgsenzian*' is made only in Bavaria from gentian roots grown mostly in the Bavarian Alps, the Alpine foothills of Bavaria, or the Bavarian Forest. The distillate is extracted from Bavarian gentian roots and all subsequent steps in the production process are carried out in the defined geographical area. The reduction of the high-percentage distillate(s) of gentian to drinking strength using water, the pouring of the spirit into bottles or other suitable sale containers, and the labelling and packaging may, however, also take place outside that area.

The defined geographical area covers the rural districts of Lindau, Oberallgäu, Ostallgäu, Weilheim-Schongau, Starnberg, Garmisch-Partenkirchen, Bad Tölz-Wolfratshausen, Munich, Ebersberg, Rosenheim, Traunstein, Berchtesgadener-Land, Cham, Regen, Passau, Deggendorf, Freyung-Grafenau and Straubing-Bogen and the urban districts of Memmingen, Kempten, Munich, Rosenheim and Straubing.

Method for obtaining the spirit drink

‘*Bayerischer Gebirgsenzian*’ is obtained from the roots of the *Gentiana lutea*, *Gentiana purpurea*, *Gentiana punctata* or *Gentiana pannonica* varieties of gentian.

The first step is to thoroughly wash and cut the gentian roots into pieces. These are yellow-flowering, protected species, which may be dug up only with a special permit from the relevant authorities.

The second step is to make the ‘*gentian mash*’ by adding water (in some cases mountain spring water) and pure-bred yeast to the washed and cut roots. Gentian roots contain as a reserve carbohydrate the trisaccharide *gentianose* (consisting of two molecules of glucose and one of fructose) which the yeast cannot ferment directly to alcohol. The gentianose is split by the *fructosidase* and *β -glucosidase* enzymes contained in the yeast into fructose, glucose and sucrose which are fermented to alcohol. The fermentation process is very slow and generally takes up to six weeks.

The third step consists of distilling the gentian mash one or two times. This can be done in several ways. The fermented mash can be distilled in copper boilers in a traditional, two-stage process (first only crude distillation followed by fine distillation with separation of heads and tails). It is also possible first to produce only a crude distillate which is then mixed in a certain ratio with ethyl alcohol of agricultural origin before being fine-distilled with separation of heads and tails. In the latter case neither unfermented roots nor other additives are added to the crude distillate. The fermented gentian mash is also sometimes fine-distilled in a single step using modern, energy and water-efficient distillation equipment.

Producers making fine gentian distillate directly tend to mix the distillate in a certain ratio with ethyl alcohol of agricultural origin. This mixing, like the addition of agricultural ethyl alcohol to the crude distillate described in the fourth paragraph of this section, serves both to refine the strong, earthy flavour of pure distillate of gentian roots and to reduce production costs.

Following distillation, the spirit is generally stored and/or matured in suitable containers (e.g. ash wood barrels).

After the maturation or storage stage, the production process is completed by carrying out the following steps:

- optional blending of different distillates of gentian,

- reduction of the high-percentage distillate(s) of gentian to drinking strength using water,
- pouring of the spirit into bottles or other suitable sale containers, and
- labelling and packaging.

Link with the geographical environment or origin

- Details of the geographical area or origin relevant to the link

The earliest written records of the distillation of gentian in Bavaria date from 1602 when the Prince of Berchtesgaden granted the right to dig up gentian roots in the surrounding mountains and to distil those roots. That was also the start of a centuries-old tradition of distilling that has continued to the present day. 'Bayerischer Gebirgsenzian' has since then become the typical spirit of the Bavarian Alps and has long been a distinctive cultural asset of Bavaria.

Accounts of the distillation of gentian in the mountains in modern-day media (newspaper articles, radio and television programmes) and luxury food and drink literature attest to the very close ties between 'Bayerischer Gebirgsenzian' and Bavaria. Various well-known companies have their own records and collections of articles from newspapers and magazines. Entering the term 'Bayerischer Gebirgsenzian' in an internet search engine brings up a number of hits providing detailed information on this Bavarian speciality spirit drink.

Many tourists like to take home a bottle of 'Bayerischer Gebirgsenzian'.

- Specific characteristics of the spirit drink attributable to the geographical area

The typical climate and the soil in the Bavarian Alps, the Alpine foothills of Bavaria, and the Bavarian Forest influence the composition of the gentianose contained in gentian roots as a reserve carbohydrate. In the Bavarian Alps, and in Berchtesgadener Land in particular, gentian grows up to an altitude of 2 500 m in the calcareous soils of the mountains. In the Bavarian Forest gentian roots are grown at altitudes of 800 m specifically for the purpose of food and pharmaceutical products. The addition of mountain spring water from the Bavarian Alps also affects the quality and organoleptic characteristics of the end product.

On account of the high (maximum legal) methanol content and the extremely sharp taste of distillate of gentian, since the end of the 19th century it has been conventional to refine the pure distillate with ethyl alcohol of agricultural origin in order to improve its flavour. The addition of ethyl alcohol of agricultural origin to distillate of gentian results in a product

which has distinctive organoleptic characteristics and differs significantly from similar gentian products made in different ways in neighbouring regions and EU Member States. The chemical cause of the different organoleptic properties of ‘Bayerischer Gebirgsenzian’ is its reduced content of various flavour-affecting fermentation by-products such as n-propanol, ethyl acetate, methanol and 2-methyl-1-propanol, for example, which impart sweet/aromatic, sometimes musty/floral notes to the earthy/spicy flavour of ‘Bayerischer Gebirgsenzian’ and soften its alcoholic sharpness as a result of esterification processes during storage.

The organoleptic properties of ‘Bayerischer Gebirgsenzian’ differ from those of gentian products made in neighbouring countries as a result of esterification in the alcohol/mountain water mixture. Some of those organoleptic differences from gentian products made in other countries are described in the literature.

In Austria, for example, gentian roots are traditionally mashed with fruits and are often distilled to make ‘gentian schnapps’, in both cases without being stored in barrels. The practice of adding gentian singlings to the fruit mash is, in particular, common in Tyrol, a region where gentian has historically grown, and results in completely different organoleptic characteristics with predominant fruity notes. As Johann Priewasser states in the 1973 Tyrol farmer’s almanac, in Tyrol finely cut gentian roots are generally added to and fermented with the fruit mash. Priewasser also describes how the roots are mixed with alcohol and the resulting tincture is distilled. In the Zillertal it is therefore conventional to macerate the dried, finely cut roots in hot water and to leave the mixture to stand for three weeks before distilling it by adding it to the singlings of an apple schnapps. The majority of gentian products in Austria are still today marketed as ‘gentian schnapps’, as a glance at the manufacturers’ websites confirms.

In France and Switzerland, by contrast, it is common for pure gentian distillate (containing no agricultural ethyl alcohol) of over 42 % by volume to be placed on the market, again without having been stored in barrels. Gentian products from both countries are traditionally **very musty and contain bitter notes** which some consumers have in the past even found repellent. In ‘Bromatology: a General Survey’ of 1854, for example, Theodor Martius gave the following account of his experience of drinking distillate of gentian in the Swiss Alps: *‘It was a cloudy liquid with a peculiar odour and a mildly bitter taste... I drank a small wineglassful, but soon felt a strong urge to be sick...’*. Martius attributes the ‘unpleasant taste’ to by-products of fermentation. Esterification processes are in those cases not particularly pronounced or are masked by the inherent mustiness of the product. Pure ‘gentian spirit’ has a low yield. An article contained in the *Solothurner Zeitung* of 9 October 2013 describes how in Solothurn, for example, a distiller can nowadays make roughly 6-7 l of gentian spirit from 100 kg of fresh roots, meaning that they produce no more than 20 l of distillate per year.

Pure gentian spirits from France and Switzerland remain niche products which are consumed mainly as purely local specialities in high demand among the populations of those countries.

European Union or national/regional provisions

The production and marketing of '*Bayerischer Gebirgsenzian*' is subject not only to Union and federal law specific to spirits but also to the Union and federal provisions of horizontal food law.

Applicant

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Supplement to the geographical indication

Specific labelling rules

(a) Basic rules on supplements to the geographical indication '*Bayerischer Gebirgsenzian*':

Under current Union law specific to spirits, the name '*Bayerischer Gebirgsenzian*' may be supplemented only by

- the terms laid down in Sections (b) and (c), or
- terms other than those specified in Section (c) which can be shown to have been in common use on 20 February 2008

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(b) Supplements with other geographical indications:

Some producers inform consumers that their '*Bayerischer Gebirgsenzian*' is made from gentian roots grown in a particular more closely defined region or at a particular location within the defined geographical area. Combinations such as '*Bayerischer Gebirgsenzian aus dem Berchtesgadener Land*' or '*Bayerischer Gebirgsenzian aus Garmisch-*

Partenkirchen are conventional in such cases. Names such as *‘Berchtesgadener Gebirgsenzian’*, for example, could appear on the label only in addition to the geographical indication *‘Bayerischer Gebirgsenzian’*. A *‘Bayerischer Gebirgsenzian’* made in Munich from gentian roots grown in Berchtesgadener Land, for example, might be marketed under a combined name such as *‘Bayerischer Gebirgsenzian aus Enzianwurzeln des Berchtesgadener Landes’*.

(c) Supplements with non-geographical terms:

- If details concerning maturation, ageing or storage are added to the name *‘Bayerischer Gebirgsenzian’*, the products must be stored or matured for at least 12 months.
- Indications of age are subject to the following rules:
 - Products matured for 12 months may be labelled as ‘mature’.
 - Products matured for three years may be labelled as ‘old’.
- If quality terms (e.g. ‘fine’, ‘premium’ or ‘table’) are added to the name *‘Bayerischer Gebirgsenzian’*, the products concerned must be of significantly higher quality than the standard products. Examples would be a high gentian distillate content obtained by fermentation and distillation of the roots, long or special storage of the distillates of gentian, multiple distillation or a blend of several distillates.
- The additional words ‘Distilled and bottled at the distillery’ may also appear on the label of products produced entirely, i.e. distilled, reduced to drinking strength with water and bottled, at a single plant.

Scope

This technical file is considered to be the generally accepted position of the commercial operators concerned from the date of its publication on the website of the Federal Office for Agriculture and Food.