



STANDARDS

FOR THE CERTIFICATION OF DEMETER-BEER

June 2005

- to be implemented by each member country by the 1st July 2006 –

Demeter International e.V.

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0 **SCOPE**

These standards apply to the production of beer which is to be labelled with the Demeter trademark.

1 **INGREDIENTS, PROCESSING AIDS AND ADDITIVES**

The only ingredients, which may be used, are hops, malt, and brewing water. All must meet these standards. The use of processing aids is limited to those aids named in these standards.

In particular, genetically modified organisms or their derivatives (GMOs) may not be used (see EU reg. 2092/91 article 4 and its amendment 1804/99). The processor must ensure that such materials do not become part of products produced to these standards, either directly (as ingredients, processing aids or additives) or indirectly (through preprepared products).

Ionising radiation may not be used on ingredients, processing aids or additives. Ionising radiation and microwaves are prohibited in all phases of production.

1.1 **Brewing cereals**

Only Demeter brewing cereals may be used to brew Demeter beer.

1.2 **Hops**

Unprocessed natural hop flowers has to be favoured. Type 90 pelletised hops may be used, but type 45 pelletised hops and hops extracts are prohibited. Hops from certified Demeter production are to be used if available. If Demeter hops cannot be obtained, permission must be sought from the Demeter-Bund to use certified organic hops. The use of conventionally produced hops is prohibited.

1.3 Yeast and Lactic Bacteria

Organic yeast may be brought in or obtained from organic breweries. Conventionally produced yeast may only be brought in if yeast with comparable characteristics is not available in certified organic quality, and if documentation proving that this yeast is not genetically modified in any way, is available. Only live, fresh yeast with no additives may be used. The yeast is to be bred and multiplied in the brewery itself on the wort which stems exclusively from Demeter raw materials. The yeast may be washed only in water of brewing quality.

Lactic bacteria may be used for lactic fermentation to produce Demeter speciality beers. This use of lactic bacteria is to be declared on the label.

1.4 Brewing Water

Water used for the brewing process and for all other purposes must be drawn from ground water reserves showing the lowest levels of pollutants. It must be at least of drinking water quality, and have a nitrate content of less than 25 mg/l.

1.4.1 Improvement of water quality

Simple upgrading of water quality, such as would be allowed for natural mineral water for human consumption, is also allowed for brewing water. The removal of iron and manganese by aeration is allowed. Elevated lime levels may be reduced by the addition of sodium carbonate.

Water may not be altered using the following processes: filtration with active charcoal, ion exchange, sterilisation of dirty water in particular with UV radiation, ozone, hypochlorite, chlorine dioxide.

1.5 Processing Aids

The following processing aids are permitted:

- Filter materials made from textiles (e.g. cottonwool), Membranes (without PVC, PVPP, Asbestos and Bentonite)
- Diatomaceous earth as a Filtering aid
- Sodium carbonate for softening water
- Brewing gypsum
- Fermentation carbon dioxide, and CO₂ may be used solely to temper the barrels and for filling
- N₂

1.6 Additives

The use of food grade additives, aromas, minerals, trace elements, and vitamins is not allowed in the production of Demeter beer.

2 PROCESSING

Demeter beer must be produced using the “traditional art of brewing“ based on processes and procedures appropriate to life. For this reason beer production uses, in preference, materials that result themselves from natural processes (e.g. acid regulation using lactic bacteria instead of the addition of an acid).

2.1 Processing Procedures

2.1.1 Malting

Demeter beer production must use cleaned, Demeter certified, cereals for malting. The cereals are to be washed with water in the steeping containers, and set to germinate in the malting or germination floors. The water must be of brewing quality.

The malt may not be treated with sulphur.

Only indirect heat may be used for drying to reduce the danger of amine development

2.1.2 The brewing process

When boiling the wort, no hops lees may be reused, and the addition of residues of beer (residue beer) is prohibited. Procedures to artificially accelerate the speed of the wort boiling process, in particular the use of silicic acid preparations to hasten the isomerisation of the hops constituents is not allowed.

The use of residues of beer as a natural acidifier is allowed.

The removal of alcohol from beer has not yet been regulated.

Specialist light beers are to be produced with yeast types that naturally produce less alcohol.

Accelerated fermentation, in particular using heat (above 12 degrees C), pressure, agitation or the method according Nathan is not allowed. All accelerated aging processes such as heating in storage are also not allowed.

Clarification aids, in particular wood shavings, organic chipping impregnated with pitch and aluminium foil are prohibited

The mature beer may be filtered with the materials listed in these standards in the section on processing aids. Filter materials should be chosen such that materials from a non-regenerating source are avoided as far as possible.

The correction of visual or taste shortcomings, e.g. the removal of off tastes by flushing with carbonic acid and using active charcoal filters, or alterations to the colour using beer colourings, is not allowed.

2.1.3 Preservatives

Cleanliness during production in the most important starting point for shelf life of the product (see the chapter on "Cleaning of facilities".)

The use of materials to lengthen shelf life, such as silicic acid preparations, PVPP bentonite etc., is prohibited.

Hot filling of the bottles and disinfection filtration to kill microorganisms are not allowed, as they diminish taste and act as preservatives.

Beers with an elevated residual sugar content may be pasteurised.

The disinfection of bottles with sulphites and the treatment of cork cap seals with formaldehyde are prohibited.

2.2 Prohibited Processing Procedures

- Improvement of water using active charcoal filters or ion exchange
- Disinfection of brewing water using UV radiation, ozone, hypochlorite or chlorine dioxide
- Drying with direct heat
- The treatment of hops and malt with sulphur
- The reuse of Hop lees and yeast cake (barm) or the artificial acceleration of wort production e.g. through using silicic acid preparations
- Rapid fermentation processes and accelerated aging i.e. by heating in storage
- Protein stabilisation with bentonite, silica preparations, PVPP
- Disinfection by pasteurisation and hot-filling of the bottles
- Procedures to artificially reduce the alcohol content
- Procedures to correct taste
- Visual improvement using beer colourings
- Determination of the filled level using radioactivity

3 **PACKAGING**

The principles of packaging are regulated in the "Standards for Packaging of Processed Demeter Products"

Packaging materials are to be chosen considering the maintenance of product quality and the minimisation of environmental impacts.

Beer is to be packed exclusively in returnable glass bottles, or multiple-use kegs/barrels of stainless steel or wood. Single use bottles and cans are prohibited.

The bottle labels are to be printed using inks containing no, or only low levels of, heavy metals. Covering of the bottles with silver paper is prohibited.

When buying in new beer crates, they are to be made of environmentally friendly materials (low-density polyethylene, with a low heavy metal content).

Bottle tops must have sealing elements that don't contain PVC.

4 **CLEANING OF FACILITIES**

Regulations governing cleaning are contained in the section "Standards for disinfection and cleaning in Demeter processing facilities" (not yet written).

Regular and thorough cleaning is obligatory. This is the best prerequisite for a long product life. Environmentally friendly cleaning materials and methods are to be chosen. Cleaning using alkalis and acids is allowed.

As a rule the bottling plant is to be cleaned with hot water and pressure rather than sterilising with a disinfection agent.

If needed, hydrogen peroxide (H₂O₂) or peracetic acid can be used.

5 **PEST CONTROL**

Breweries and farmer who brew beer must follow the current version of the "Standards for pest control in storage and factory areas".

6 **LABELLING**

Labelling of the beer is regulated in the currently valid version of the "Standards for the labelling of Demeter Products".