

Information on electrophoretic determination of cereal varieties (Status: 05/2021)

The determination of wheat, barley and oat varieties is performed using gel electrophoresis.

The grain proteins are extracted from the individual grain, separated electrophoretically in a polyacrylamide gel and visualized using specific dyes. The protein patterns of the cereal grains are strongly variety specific. 40 individual grains per sample are analysed electrophoretically. By this number of grains it is guaranteed that extraneous are detected if present at over 5 % in a pure sample.

More information material on the topic "Electrophoretic variety determination of potatoes and cereals" can be ordered from LUFA Nord-West, Institute for Soil and Environment.

Quality control: The method is accredited according to DIN EN ISO/IEC 17025:2018-03.

When sending samples, please note the following:

Variety identity

1. Sending samples:

For determination of variety identity, 200 g of a representative sample are required.

The declared or assumed variety has to be indicated.

2. Test duration:

The analysis takes circa 5 working days.

3. Test report:

- a. Confirmation or non-confirmation of the declared variety

or

- b. Determination of the baking quality (according to „ Beschreibende Sortenliste Getreide, Mais, Öl- und Faserpflanzen, Leguminosen, Rüben, Zwischenfrüchte“; German Bundessortenamt).

Variety identification

In samples of unknown variety or of incorrect declared variety, the correct variety can be identified as long as it is listed in the „ Describing list of variety of cereals, corn, oil fruits, legumes, root crops“; German Bundessortenamt).

1. Sending samples:

For variety identification, 200g of a representative sample are required.

2. Test duration:

The analysis takes circa 8 working days.

3. Test report:

The name of the identified variety is reported