

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

The determination of potato varieties is performed by using gel electrophoresis.

The tuber proteins are extracted from the individual tuber, separated electrophoretically in a polyacrylamide gel and visualised using specific dyes. The protein patterns of the potato tubers are strongly variety specific. 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, 6 tubers are analysed. These tubers have to be taken randomly (blind) from a representative 2,5 kg sample.

The declared variety has to be indicated

2. Test duration:

The analysis takes 2 - 4 working days.

3. Test report:

Confirmation or non-confirmation of the declared variety.

Variety purity

1. Sending samples:

To determine the purity of a variety, 15 tubers of a representative sample are analysed.

The declared variety has to be indicated.

2. Test duration:

The analysis takes 2 - 4 working days.

3. Test report:

It is determined whether the amount of variety impurity for potatoes of 2% is exceeded or not.

Variety identification

Variety identification is possible if the unknown variety is listed in the "Beschreibende Sortenliste Kartoffeln" of the German Bundessortenamt.

In some cases an identification of foreign potato varieties is possible.

1. Sending samples:

For variety identification, 6 tubers are analysed.

2. Test duration:

The analysis takes 4 - 5 working days in average.

3. Test report:

The name of the identified variety is reported or an extraneous variety in a mixed lot is detected.