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LUFA NORD-WEST

I n f o r m a t i o n
on electrophoretic identification of potato varieties
(Status: 07/2026)

The identification of potato varieties is performed by gel electrophoresis. The tuber proteins are extracted from the individual tuber, separated electrophoretically in a polyacrylamide gel, and visualized using specific dyes. The protein patterns of the potato tubers are strongly variety specific.

More information on the topic “Electrophoretic variety determination of potatoes” 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 must be taken randomly (blind) from a representative 2.5 kg sample.

The declared variety must be indicated

2. **Test duration:**

The analysis takes 2 to 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 must be indicated.

2. **Test duration:**

The analysis takes 2 to 4 working days.

3. **Test report:**

It is determined whether the variety impurity in potatoes exceeds 2%.

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 to 5 working days on average.

3. **Test report:**

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