



## Information on electrophoretic determination of potatoes

The determination of potatoes for human consumption is performed 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 Fertilizers and Seeds.

### When sending samples, please note the following:

#### Variety identity

**1. Sending samples:**

For determination of variety identity, 6 tubers are required. These tubers have to be taken randomly (blind) from a representative 5 kg sample.

The declared variety has to be indicated

**2. Test duration:**

The analysis takes 2-4 days

**3. Test report:**

Confirmation or non-confirmation of the declared variety

#### Variety purity

**1. Sending samples:**

To determine the purity of a variety, at least 15 tubers of a representative sample are required. The declared variety has to be indicated.

**2. Test duration:**

The analysis takes 3 - 5 days

**3. Test report:**

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

#### Variety identification

Variety identification is possible if the unknown variety is listed in the "Beschreibende Sortenliste Kartoffeln"; German Bundessortenamt. In some cases an identification of foreign potato varieties is possible.

**1. Sending samples:**

For variety identification, 6 tubers are required

**2. Test duration:**

The analysis takes 4 - 5 days in average

**3. Test report:**

The name of the identified variety is reported