

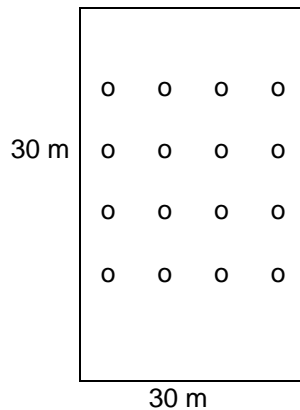
Notes regarding taking soil samples for nutrient analysis

Area of application:

Sampling for the analysis of arable land for fertilisation requirements of N.

Sampling location

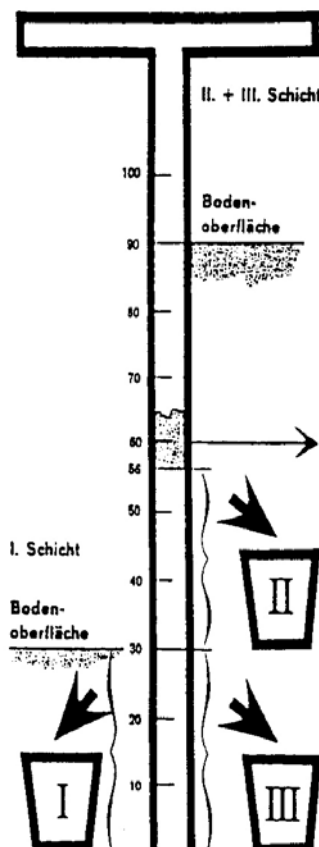
A plot of approx. 2 ha typical for the location has to be selected. The approx. 16 sampling points have to be chosen as follows:



The sampling should be repeated in the same or following years on the same part plot. Therefore, it should be marked on the farm map. For determining the residual N_{\min} in autumn after maize harvest, 1/3 of the samples should be taken in the rows and 2/3 of the samples between the rows.

Description of sampling

Normally, the field soil should be sampled to a depth of 90 cm. If the ground contains stones, less depth is adequate, this must be stated on the order form.



I. Sample layer = 0-30 cm

1. Compact soil.
2. Push soil sampler to a depth of 30 cm into the soil or drive in with a hammer
3. Turn and pull the filled sampler out slowly. The core must stay entirely inside the sampler, otherwise the sampler must be cleaned and the sampling must be repeated.
4. Strike off the soil rim at the open end of the soil sampler.
5. Move the core entirely into bucket I.

II. Sample layer = 30 - 90 cm

6. Introduce soil sampler into the open bore hole and drive down to 90 cm.
7. Turn soil sampler and pull out slowly, if necessary while turning at the same time.
8. Strike off the soil rim using a knife.
9. Always remove at least the top 5 cm of the core. This consists in part of top soil material which has dropped into the bore hole. This soil must be removed completely. **Source of errors!**
10. First, move the bottom part of the core from depth 60 - 90 cm into bucket III.
11. Then, move the rest of the core from approx. 35 - 60 cm depth into bucket II.
12. Move the contents of buckets I, II and III completely into separate sturdy plastic bags. Label or insert a labelled paper slip. Tie the three bags together with string.
13. Close the bags and store cool (+2 to +

4°C) until transport.

The labelling must contain at least

- a) Plot
- b) Layer (0-30 = I, 30-60 = II, 60-90 = III)
- c) Sampling date
- d) Planned culture

Sample transport to LUFA

The samples can be transported using the collection points of the **LUFA - pick-up service**. Should you not have any information regarding this, you can call LUFA Nord-West in Hameln on **Tel.: +49 (0) 5151 9871- 40** and organise transport before taking the sample.

Tool for sampling

- a) Soil sampler 1 m length for sampling
- b) Polyamide hammer with a weight of approx. 4.5 kg
(iron not recommended due to deformation of the head of the soil sampler)
- c) Three 5 l plastic household buckets to take up the soil samples.
The buckets must be marked clearly to avoid confusion.
0-30 cm = I
30-60 cm = II
60-90 cm = III
- d) Knife for emptying the soil sampler
- e) Plastic bag with sample list (available at LUFA) for packaging and labelling the soil samples
- f) Ball pen or waterproof marker pen

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