

Nitrate Measurement

SINGLE ELEMENTS

Nitrachek



Reflectometer for the optical evaluation of Merckoquant nitrate test strips which are used to measure the nitrate content of plants, soil solutions (N-min = mineralized Nitrogen), water etc. Data memory for the last 20 measurements with time and date. Automatic multiplication with correction factor. Measuring range: 0 - 500 mg/L Accuracy: ± 10% after setting the correction factor

Delivery content: 9-volt-battery, standard solution 100 ppm, manual.

Art.-No.	
33010	Nitrachek 404 with calibration solution 100 mg/L NO ₃ , 50 mL
Accessories	
33011	Merckoquant nitrate test strips, 100 pcs 0-10-25-50-100-250-500 mg/L NO ₃ , 0-100 mg/L Nitrite-warning indicator
33012	Calibration solution 100 mg/L NO ₃ , 50 mL
33013	Round filter paper Ø 15 cm, 100 pcs. for soil filtration
33014	Operation manual

Nitrate Test Kit



Complete nitrate test kit for fast on-site measurement of mineralized nitrogen. The complete test kit includes all necessary equipment for preparation and measurement of nitrate in soil, water and plant tissue samples. The measuring system has been applied for many years in agri- and horticulture and has been tested for a long time in various plant research institutes and academies.

The detailed handbook (in German language) provides full information about

- How to prepare the sample
- How to make the analyses
- How to evaluate and interpret the measuring results.

Content of the complete test kit:

- Nitrachek with standard solution Art.-No. 33010
- Portable scale Art. No. 43030
- Plastic sample beakers Art. No. 20033
- Round filter papers Art. No. 33013
- Merckoquant nitrate test strips Art. No. 33011
- Household mixer, for homogenisation of plant tissue samples, e.g. vegetables
- Rugged aluminium case

Art.-No.	
33100	Nitrate test kit

LAQUA Nitrate Meter



LAQUA is a compact meter for a quick measurement of nitrate ions using ion selective membrane. Flat sensor technology and 60 years of sensor engineering realizes a reliable and direct measurement of a drop of the sample from 0.3mL.

- Measurements without sample dilution
- No need for a beaker or other labware
- No disturbance influences

Delivery contents: batteries, pipette, 2x standard solution, manual, storage case

Technical data	
Measuring principle	Ion electrode method
Minimum sample volume	0.3 mL
Measuring range	62 - 6200 ppm (mg/L) NO ₃ ⁻
Resolution	1, 10 or 100 ppm
Calibration	1- or 2-point
Accuracy	±10% of reading value
Power	2 x CR2032
Art.-No.	
33300	LAQUA Nitrate Meter, complete
33310	Nitrate Standard 2000 ppm 6x14 mL
33320	Nitrate Standard 150 ppm 6x14 mL
33301	Replacement Electrode

N-Tester



In winter wheat, winter barley, winter rye and triticale the chlorophyll content is measured by handy device optically in the youngest fully developed leaf in the growing plant stand.

After 30 individual measurements carried out in the field, the result is displayed as a mean. As chlorophyll concentration reflects the nitrogen nutritional status of the plant, nitrogen fertilizer requirements can be concluded from measuring results.

- Direct output of fertilizer quantity
- All correction values for varieties integrated
- Input of field possible
- Output of data: storage, printing, export
- Application in other crops possible

Determination of the required amount of nitrogen fertilizer is often a major challenge for the farmer. In most cases plants are fertilized with "normal service" amount of nitrogen depending on the development. However, this amount often does not correspond to the actual nitrogen requirement. For both the N-mobilization from the soil and the N-uptake, which depends on cultivating conditions and yield of crops, vary from year to year.

With the N-tester it is possible to make precise determinations of the N-demand directly in the plant stand during the vegetation stages of stem elongation and ear emergence.

Over-and under-supply of nitrogen can be avoided. The use of the N-tester is therefore recommended not only for economic but also for environmental reasons.

Technical data	
Size of the sample slot	2 x 3 mm
Maximum leaf thickness	1.2 mm
Maximum insertion depth (with depth stop)	12 mm
Light source	2 LED
Receiver	Silicon photo diode
Batteries	2 x AA, 1.5 V
Service life of a battery	approx. 20,000 measurements
Housing	Class 4, EN 60529
Weight	200 g
Dimensions	164 x 78 x 49 mm
Art.-No.	
33200	N-Tester