You will return to the contents of P1 SOIL by clicking the pictogram

XIXIXIXIX

P1.67

A number of analysis of the soil can be executed immediately in the field. The determination of the pH and the nitrate content are soil analysis that frequently occur.

08.10 Hellige pH-indicator

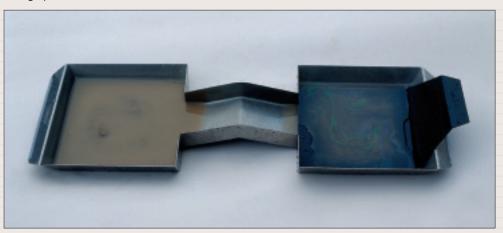
The Hellige pH-indicator is a very simple apparatus to estimate the pH (acidity) of a soil for the purpose of a soil suitability indication and straight forward fertilizing advise. The pH is determined on the basis of colour comparison.

18.40 Nitrachek reflectometer

The Nitrachek reflectometer is a pocket size digital measuring instrument for a simple and quick determination in the field of the nitrate content in water or in a watery extract of soil or crop. The method is based on read-out of nitrate test strips. After a test strip is held in the solution it is placed in the optical read-out apparatus. The instrument has a memory for up to 20 measuring sets with date/ time indication. The measuring range is 5 - 500 ppm (mg/l) nitrate.



Hellige pH-indicator



Oil detection pan

The reading accuracy is 1 mg/l. The instrument is supplied including case, test strips, calibration solution and accessories.

20.02 Oil detection pan

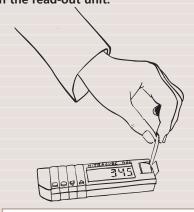
The oil detection pan is developed for a rapid on-site analysis of soil and groundwater for floating contaminants e.g. soaps, dyestuffs and all kinds of oil derivates such as tar, lubricating oil, kerosine and petrol. In addition to laboratory analysis, rapid on-site analysis may be very useful in investigations of soil contaminations:

- Rapid monitoring of environmental conditions is necessary for safety measures during site investigation, excavation and remedial actions.
- In case of excavation, rapid decisions have to be made about the extent to which the soil is contaminated.
- The extent of the contamination can be determined more accurately in the field, which means better sampling for laboratory analysis and thus lower costs.



Read-out unit Nitracheck

The test strip is placed in the read-out unit.



BENEFITS

18.40 Nitrachek

- Uses fresh field samples, no transport needed
- Accurate when used properly
- Batchwise calibration by user
- Can also be used for diluted plant juices
- Soil can be mixed with KCI-Water and filtered

To examine the sample, in the oil detection pan, water is moved to the part with the black anti-



BENEFITS

20.02 Oil detection pan

- Shows oil in soil directly in the field
- Can detect oil down to lowest level
- Experienced user can separate in 4 classes
- Photo manual included
- Ideal during first soil research
- Ideal to separate soil types when remediating
- Prevents active smelling of soil samples
- No wear, no costs
- Can be used for yes-no or for quantification



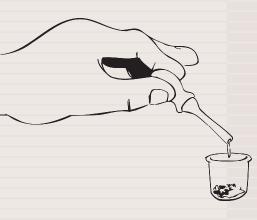


P1.67

After drilling a small hole the electrode can be pushed into the soil.



The reagent is added to the liquid soil extract, after which the color reaction is measured against the color chart.



SOIL ANALYSIS

18.44 pH field analysis set

For the direct determination of the pH of soils (and liquids) a special electrode is used. Measurement of pH is based on semi conductor technology. The special, sturdy electrode, contains an Ion Sensitive Field Effect Transistor (ISFET) sensor, a silver/silver-chloride potassium-chloride reference system and a thermistor to allow for automatic temperature compensation.

The electrode has a measuring range of 0-14 pH with an accuracy of 0.03 pH. Measurement depth is 80 mm. The electrode is used in combination with a multimeter. The complete set includes the multimeter with electrode, a small pre-drill auger land with thumb spatula and calibration liquids.

18.02	Soil test kit for macronutrients & pH					
	•					
18.04	Soil test kit for macronutrients, pH,					
	, ,					
	humus, calcium & magnesium					
18.06	Soil test kit for macronutrients,					
	, , , , , , , , , , , , , , , , , , , ,					
micronutrients & pH						

The (agricultural) soil test kits offer simplified

methods for determination of available nutrients found in agricultural soils.

A series of rapid, accurate chemical tests use standardized reagents to produce color reactions measured against laminated color charts.

Colorimetric test methods are used for most test factors.

Some tests are based on turbidity measurements.

A single extraction procedure provides the liquid soil extract for all the nutrient tests with the exception of chloride, which is extracted with demineralized water.

Soil pH is determined colorimetrically, covering the range of pH 3.8 to 9.6. Complete reagent refill packages are available for each outfit.

All kits outfits are furnished in lightweight carrying cases with components securely mounted in removable foam trays.

Each kit includes complete instructions, a soil management handbook and a pad of soil analysis report forms.



pH field analysis set with ISFET electrode



Soil test kit for macronutrients, micronutrients and pH

PARTS LIST



Art.no.	Description	Qty. in set	Art.no.	Description	Qty. in set
Soil analysis (P1	For analysis of soil we supply various instruments that can be used directly in the field.			and time related data stora with 100 nitrate test strips calibration solution and accessories in bag Accessories for Nitrachek	•
08.10	PH MEASUREMENT To measure pH of soil we supply two sets: - pH indicator - pH meter with accessories (set) Hellige pH-indicator for soi measuring range pH4 - pH5 (incl. 50 cc indicator fluid, for about 50 pH-tests)	il, 9,	18.40.01 18.40.02	(spare parts) Nitrate test strips, package or 100 pcs Calibration solution for nitrachek, 100 ppm DETERMINATION OF VARIOUS PARAMETERS For complete soil analysis is agricultural soils we supply three sets:	DUS in
08.10.02	Accessories for pH-indicato (spare part): pH indicator fluid, pH 4.0 -9.0 bottle of 500 cc		18.02	Soil test kit for macro nutrand pH. Complete test kit to pH (100x) and N (nitrate), I K tests (50x). In carrying care	for P and
18.44	Field analysis set to determ the pH of liquids and soil. Included in the set are: a m meter 18.21, a pre-drill aug a pH electrode soil/ISFET P' a thumb spatula, calibratio liquids and a bag.	nulti- jer, T1000,	18.04	Soil test kit for macro-nutr and pH, humus, calcium an magnesium. Complete test for pH (100x) and N (nitrat K, Ca, Mg and humus tests In carrying case.	nd : kit :e), P,
**18.21	pH/mV/EC/T meter, without electrodes, 0-14 pH, ±1100 m 0-100 mS/cm, 0-100 °C. IP65 h Menu-operated calibrations. Simultaneous measurement op H and EC possible. Graphic display according GLP. In case adjusting & maintenance liqu	nousing. of e with	18.06	Soil test kit for macro- and nutrients and pH. Complet test kit for pH (100x) and N (nitrate + nitrite), P, K, Ca, NH3, Mn, Ae, NH4, sulphat Fe, chloride and humus (50 In carrying case.	e N Mg, te,
**18.21.23	+batteries Temperature probe Pt1000 with stainless steel shaft, measuring range -30 till +130 dimensions 120x6 mm, banar plugs, cable length 1 m, splas	na	18.02.02	We also offer complete reagent test kits for above sets: (spare parts) Reagent refill kit for soil test kit, model 18.02	
**18.44.01	proof (IP65) pH electrode ISFET with BNC plug, measuring range pH 0- Accuracy 0.03 pH. Measuring depth 80 mm. Suitable for	14.	18.04.02 18.06.02	Reagent refill kit for soil test kit, model 18.04 Reagent refill kit for soil test kit, model 18.06	
**04.06.02	measurements in liquids and Auger for arable land, Ø 13 mm, operational length 25 cm, total length 32 cm, graduation 5 cm, totally zinc plated construction	1		DETERMINATION OF FLOAT CONTAMINANTS (OIL) IN S Here we offer the oil detect pan	OIL
**04.06.03 **18.44.91	Thumb spatula Bag to store the auger for arable land and the thum spatula DETERMINATION OF NITRA		20.02	Oil detection pan, type Arcadis-Eijkelkamp, for sen quantitative field determin of the content of mineral c soil samples. Incl. one anti- reflection plate	nation oil in
	CONTENT Here we supply the Nitrach for water and watery extra			-	

for water and watery extracts

Nitrachek reflectometer, measuring range 5-500 ppm with date

18.40

