

Application note

Version 1

Determination of Nitrate in Spinach

Overview	
Parameter	Nitrate
Test	QUANTOFIX® Nitrate 250 (REF 91366)
General Information	The determination of nitrate in vegetables is necessary for the food processing industry in order to detect and, if necessary, remove undesirable nitrate levels. In order to obtain correct results with the QUANTOFIX® Nitrate 250 test strip, we recommend an adapted measuring method for measurements in spinach samples.



Sample Preparation, Procedure, and Calculation of Results

Procedure	
	Grind 2,5 g of the sample to be tested in 80 mL of distilled water, e.g. using a mixer, and then boil for approx. 15 minutes. Fill the cooled sample up to 100 mL using distilled water and filter. The filtrate is the sample to be analyzed.
Evaluation	
Visual Evaluation	- dip the test strip into the sample for 3 s. - shake off excess liquid. - wait for 60 s. - compare the test strip to the color scale.
On the QUANTOFIX® Relax (version 3)	- select method NO₃ 250. - dip the test strip into the sample for 3 s. - shake off excess liquid. - place the test strip on the strip holder (with an activated reaction time of 60 s). - read the test result once the reaction time has elapsed.

Contact

If you have further questions, please do not hesitate to contact us:

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Results for doped spinach samples determined using the QUANTOFIX® Relax:

Sample	Doped quantity [mg/L]	Quantity shown on the display [mg/L]	Recovery rate [%]
1	9	9	100
1	46	43	93
1	93	88	95
2	10	10	100
2	48	46	96
2	97	90	93