

FOOD ANALYSIS

A VALIDATED LC/MS/MS SOLUTION FOR THE ANALYSIS OF GROWTH REGULATORS IN CEREALS



Solutions for Your Analytical Business
Markets and Applications Programs



Agilent Technologies

Authorized Partner Laboratory

Matrices

- Soft Wheat
- Hard Wheat

Target Compounds

- Chlormequat
- Mepiquat

This Solution is dedicated to the analysis of Chlormequat and Mepiquat in different cereals.

In agriculture, the quaternary ammonium herbicides Chlormequat and Mepiquat are used as plant growth regulators either individually, as mixtures or with other pesticides.

European Community regulations determine the maximum allowed amounts of those compounds in different matrices for its member states.

Agilent offers a turn-key Solution covering:

- Sample preparation
- Sample analysis
- Data analysis
- Full Agilent support



The working range goes from 0.01 mg/kg to 0.10 mg/kg for all analytes. LOQs, LODs, precision and recoveries are calculated in accordance to DG SANCO guidelines and used whenever possible the MRLs established in the Regulation (EC) No 396/2005 of the European Parliament and the Council on maximum residue levels (MRLs) in products of plant and animal origin.

Sample preparation is done with a single solvent extraction. Sample analysis is performed with an Agilent UHPLC 1260 and an Agilent 6460 triple quadrupole.



Agilent
Guaranteed
Solution

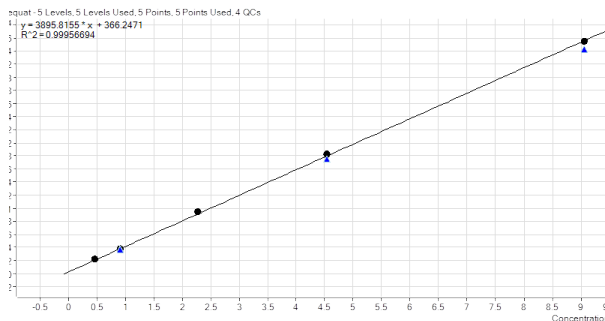
Developed
Installed
Tested
Supported

The Measure of Confidence

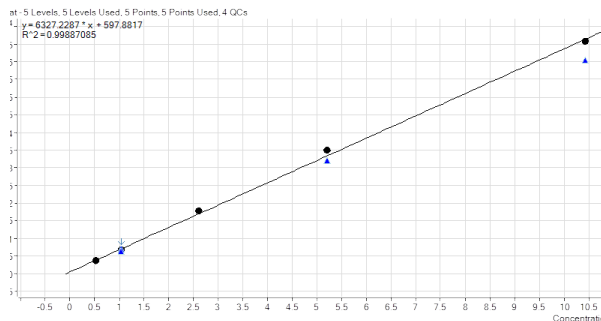


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Chlormequat



Mepiquat

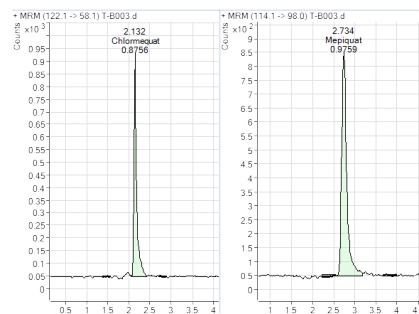


Straight calibration from 0,5 ppb to 10 ppb

The Agilent Pesticides Solution for cereals comprises the following:

- Complete hardware set-up (Agilent 1260 UHPLC and Agilent 6460 triple quadrupole) with dedicated analytical column;
- Standard operating procedure (SOP) with detailed descriptions of the analysis and validation procedures;
- Method of analysis (a DVD/CD containing sample preparation and sample analysis methods, recommended consumables and materials);
- One week training at Laboratorio Químico-Microbiológico (Murcia, Spain) on sample prep, validation procedures and analytical methods;
- On-site Training and Support (at customer site) covering Qualitative and Quantitative analysis;

Chlormequat and Mepiquat at 1 ppb



STANDARD OPERATING PROCEDURE
 DETERMINATION OF CHLORMEQUAT AND MEPIQUAT IN SOFT AND HARD WHEAT BY HIGH RESOLUTION HPLC-MS/MS

STANDARD OPERATING PROCEDURE
 DETERMINATION OF CHLORMEQUAT AND MEPIQUAT IN CEREALS

Date	Pages

	Chlormequat (ppb)	Mepiquat (ppb)
Soft Wheat	10.00	10.00
Hard Wheat	10.00	10.00



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