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Nota applicativa

Multi-Residue Analysis of Pesticides in Rolled Oats Using AOAC QuEChERS Method by UPLC-MS/MS

Waters Corporation

This is an Application Brief and does not contain a detailed Experimental section.

Abstract

This application brief higlights Multi-Residue Analysis of Pesticides in Rolled Oats.

Experimental

Extraction Procedure

1. Add 15 mL 1% acetic acid in acetonitrile into the 50 mL DisQuE extraction tube 1.
2. Diluted 7.5 g ground rolled oats with 15 mL water and soak for 10 min.
3. Add sample into the 50 mL tube.
4. Add any internal standards and standard mixture.
5. Shake vigorously for 1 minute and centrifuge > 1500 rcf for 5 minute.
6. Transfer 1 mL of the acetonitrile extract into the clean-up tube 2.
7. Shake for 30 seconds and centrifuge >1500 rcf for 1 minute.
8. Transfer 100 µL of final extract into a 1.5 mL centrifuge tube.
9. Add any post-extraction internal standards.
10. Dilute as needed with an appropriate buffer or solvent.
11. Centrifuge > 16000 rcf for 5 minutes.
12. Transfer to autosampler vial.

LC Conditions

LC System:	Waters ACQUITY UPLC System
Column:	ACQUITY UPLC BEH C_{18}, 2.1 x 100 mm, 1.7 µm
Column Temp:	40 °C
Sample Temp:	4 °C
Flow Rate:	0.3 mL/min.
Mobile Phase A:	Water + 0.1% formic acid

Mobile Phase B:	Methanol + 0.1% formic acid
Injection Volume:	15 µL, Partial loop injection

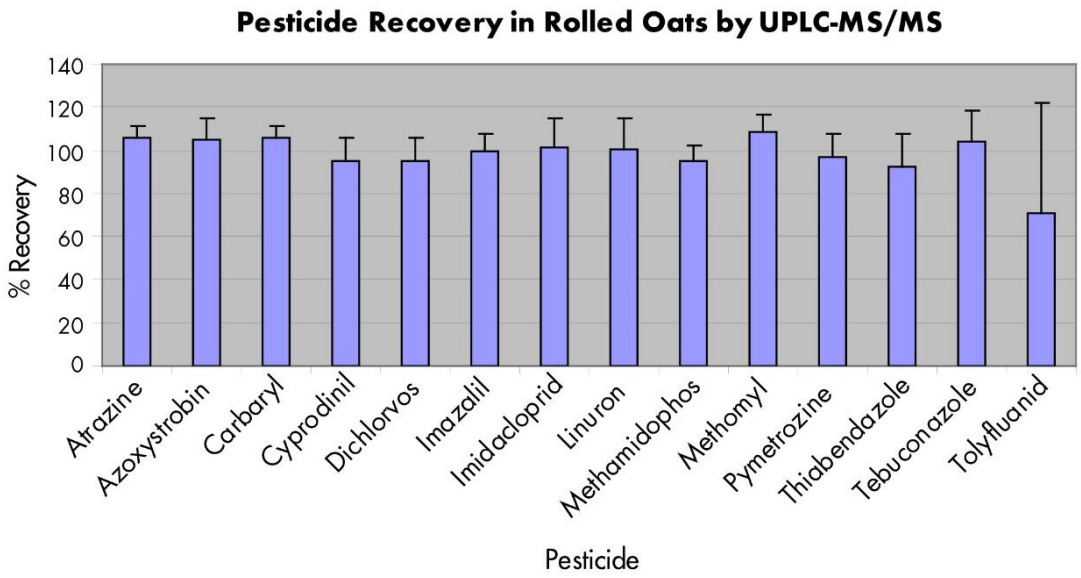
Gradient:

Time	Flow Rate	A%	B%
0.00	0.3	75	25
0.25	0.3	75	25
7.75	0.3	5	100
8.50	0.3	0	100
8.51	0.5	75	25
10.50	0.5	75	25
11.00	0.3	75	25

MS Conditions

Instrument:	Waters ACQUITY TQ Detector
Ionization:	Positive electrospray (ESI+)
Acquisition:	Multiple reaction monitoring (MRM)

Results and Discussion



Pesticides in Rolled Oats by UPLC-MS/MS

Featured Products

ACQUITY UPLC System <https://www.waters.com/514207>

ACQUITY UPLC Tunable UV Detector <https://www.waters.com/514228>

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