

ISOLUTE® QuEChERS

IST Sample Preparation Products



ISOLUTE QuEChERS fast and efficient clean up of complex samples

QuEChERS (pronounced “catchers”) stands for **Q**uick, **E**asy, **C**heap, **E**ffective, **R**ugged, and **S**afe. The technique is designed to be simple and involve a minimum number of steps; but still allow for effective clean up of complex samples. The QuEChERS technique involves two stages.

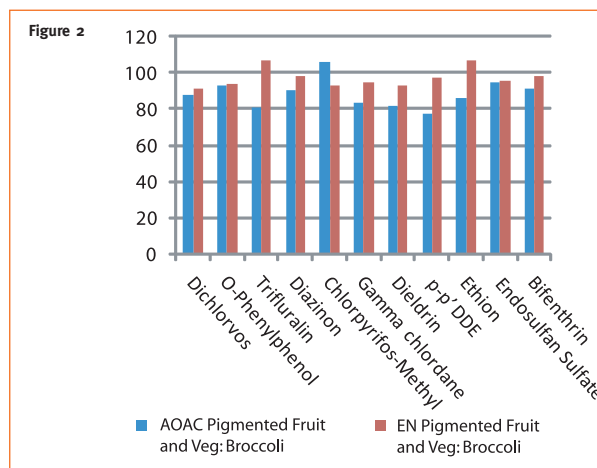
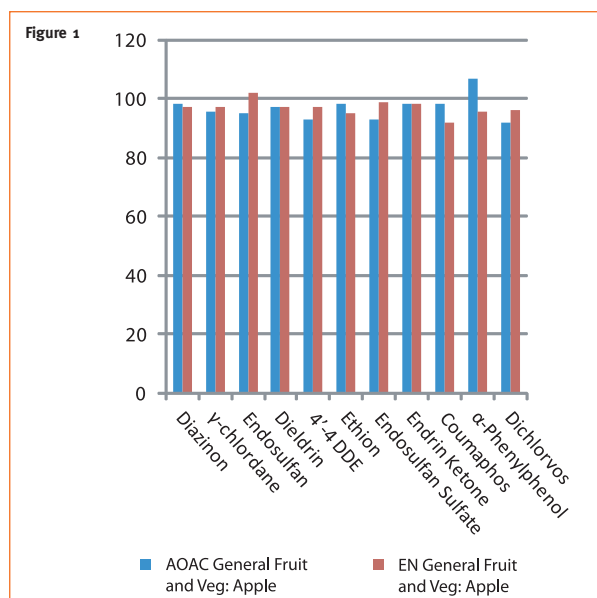
- i) a crude extraction and partitioning step using organic solvent and a salt solution
- ii) followed by further extraction and clean up using dispersive solid phase extraction.

Using Biotage QuEChERS tubes, analysts no longer need to weigh individual components, making the method even quicker and more consistent.

Biotage QuEChERS products include extraction tubes for the initial extraction and partitioning of analytes from homogenized food samples; and clean up tubes for the dispersive solid phase extraction. All Biotage QuEChERS products come packed in a rack for ease of storage and use on the bench. Additionally, solvent resistant paper labels aid hassle free sample identification.

AOAC 2007.01 and European EN 15662 Methodologies

Biotage supplies pre-weighed extraction and clean up tubes that conform with AOAC^{1,2} and the EU³ published methods, including those for waxed and highly pigmented fruit and vegetable samples.



Figures 1 and 2: Pesticide suite was extracted using Biotage QuEChERS products and the relevant methodology (AOAC or EN) for apple (fig 1) and Broccoli (fig 2). In all instances, recoveries were above 75%.

Figure 3

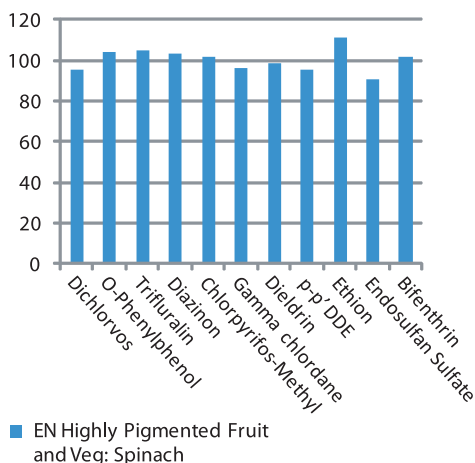
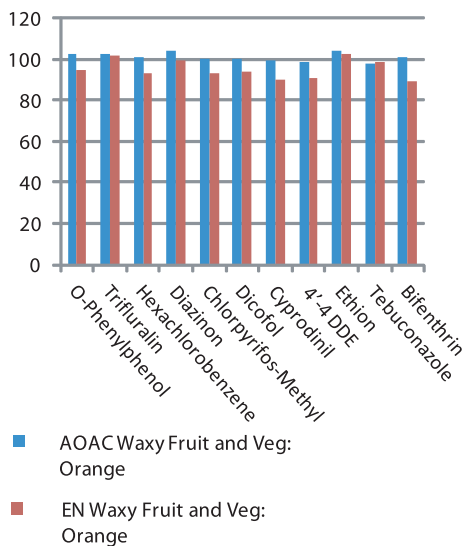


Figure 4



Figures 3 and 4: Pesticide suite was extracted using Biotage QuEChERS products and the relevant methodology (AOAC or EN) for spinach (fig 3) and orange (fig 2). In all instances, recoveries were above 80%.

Ordering Information Extraction Tubes

Description	Part No	Tube	Pack Size	MgSO4	Na Acetate	Na Citrate	Na Citrate sesquihydrate	NaCl
15 g QuEChERS AOAC 15 mL Extraction Tube	Q0010-15V	15 mL	25	6 g	1.5 g			
10 g QuEChERS EN 15 mL Extraction Tube	Q0020-15V	15 mL	25	4 g		1 g	0.5 g	1 g

Ordering Information Clean up Tubes

Description	Part No	Tube	Pack Size	PSA	MgSO4 (purest)	C18(EC)	GCB
AOAC Fruit and Vegetables Clean up Tube	Q0030-15V	15 mL	25	400 mg	1200 mg		
EN Fruit and Vegetable Clean up Tube	Q0035-15V	15 mL	25	150 mg	900 mg		
AOAC Waxed Fruit and Vegetables Clean up Tube	Q0050-15V	15 mL	25	400 mg	1200 mg	400 mg	
EN Waxed Fruit and Vegetables Clean up Tube	Q0060-15V	15 mL	25	150 mg	900 mg	150 mg	
AOAC Pigmented Fruit and Vegetables Clean up Tube	Q0070-15V	15 mL	25	400 mg	1200 mg		400 mg
EN Pigmented Fruit and Vegetables Clean up Tube	Q0080-15V	15 mL	25	150 mg	900 mg		15 mg
EN Highly Pigmented Fruit and Vegetables Clean up Tube	Q0090-15V	15 mL	25	150 mg	900 mg		45 mg

Ordering Information Centrifuge Tube

Description	Part No	Tube	Pack Size
50 mL Centrifuge Tube with Rack		50 mL	25

References

- 1) AOAC Official Method 2007.01. Pesticide residues in foods by acetonitrile extraction and partitioning with magnesium sulfate.
- 2) Anastassiades, M., Lehoutay, S.J., Stajnbaher, D. and Schenk, F.J. (2003) J AOAC International 86, 412-431.
- 3) EN 15662. Foods of plant origin- Determination of pesticide residues using GC-MS and /or LC-MS/MS following acetonitrile extraction/partitioning and clean up by dispersive SPE-QuEChERS method.

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