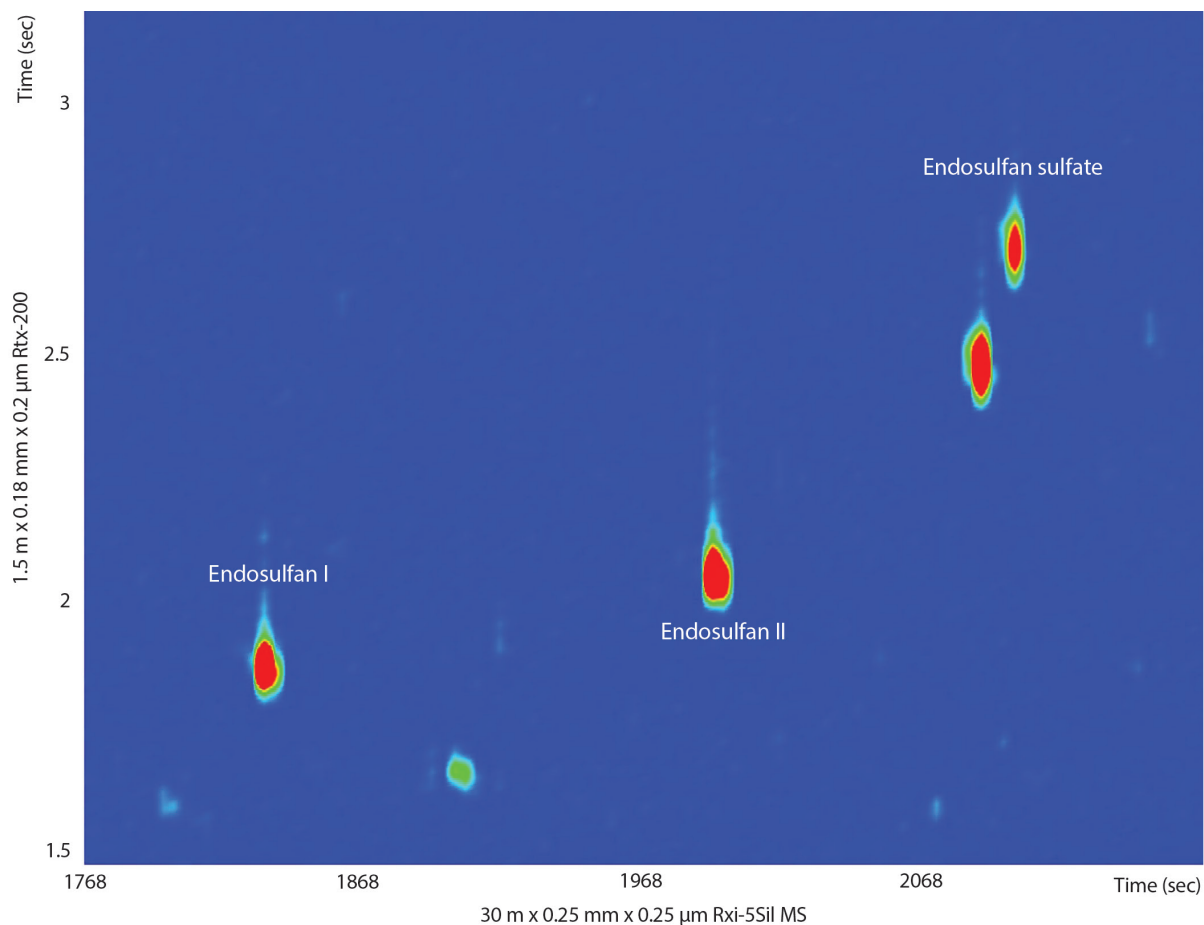


## GCxGC-TOFMS Chromatogram of QuEChERS Extract of Red Bell Pepper Showing Incurred Pesticides Using Rxi-5Sil MS and Rtx-200



GC\_FF1220

**Column** Rxi-5Sil MS 30 m, 0.25 mm ID, 0.25  $\mu$ m (cat.# 13623)  
Rtx-200 1.5 m, 0.18 mm ID, 0.20  $\mu$ m (cat.# 45001)

**Sample** Pesticides in red bell pepper extract  
QuEChERS internal standard mix for GC-MS analysis (cat.# 33267)  
Acetonitrile

**Diluent:**

**Injection**  
Inj. Vol.: 1  $\mu$ L splitless (hold 1 min)  
Liner: Gooseneck splitless (5 mm) w/deactivated wool (cat.# 22973-200.1)  
Inj. Temp.: 250  $^{\circ}$ C  
Purge Flow: 40 mL/min

**Oven**  
Oven Temp.: Rxi-5Sil MS: 90  $^{\circ}$ C (hold 1 min) to 310  $^{\circ}$ C at 4  $^{\circ}$ C/min (hold 2 min)  
Rtx-200: 100  $^{\circ}$ C (hold 1 min) to 320  $^{\circ}$ C at 4  $^{\circ}$ C/min (hold 2 min)  
He, corrected constant flow (1.8 mL/min)

**Carrier Gas**

**Modulation**  
Modulator Temp. Offset: 25  $^{\circ}$ C  
Second Dimension  
Separation Time: 4 sec  
Hot Pulse Time: 1.2 sec  
Cool Time between Stages: 0.8 sec

**Detector**  
Transfer Line Temp.: 290  $^{\circ}$ C  
Analyzer Type: TOF  
Source Temp.: 225  $^{\circ}$ C  
Electron Energy: 70 eV  
Mass Defect: -20 mu/100 u  
Solvent Delay Time: 5 min  
Tune Type: PFTBA

**Ionization Mode:** EI  
**Acquisition Range:** 45-550 amu  
**Spectral Acquisition Rate:** 100 spectra/sec  
**Instrument** LECO Pegasus 4D GCxGC-TOFMS  
**Notes** Rtx-200 (cat.# 45001) is a 10 m column. A 1.5 m section was cut off and used as the second dimension column.

Internal Standard: 100  $\mu$ L of QuEChERS internal standard mix for GC-MS analysis (cat.# 33267) and 100  $\mu$ L of QuEChERS internal standard mix for LC-MS/MS analysis (cat.# 33261) were added to each 10 g sample. These internal standard mixes require no dilutions ("snap-and-shoot") and contain compounds specified in the EN 15662 QuEChERS method.

Extraction: 10 mL acetonitrile was added to a 10 gram sample of homogenized red bell pepper. After a 1 minute shake, Q-sep<sup>TM</sup> European method extraction salts (cat.# 26236) were added followed by another 1 minute shake. The sample was then centrifuged with Q-sep<sup>TM</sup> 3000 centrifuge (cat.# 26230).

dSPE: Add 1 mL extract to QuEChERS dSPE cleanup tube containing 150 mg MgSO<sub>4</sub>, 25 mg PSA, and 25 mg C18 (cat.# 26216). Shake for 30 seconds and centrifuge with Q-sep<sup>TM</sup> 3000 centrifuge (cat.# 26230).