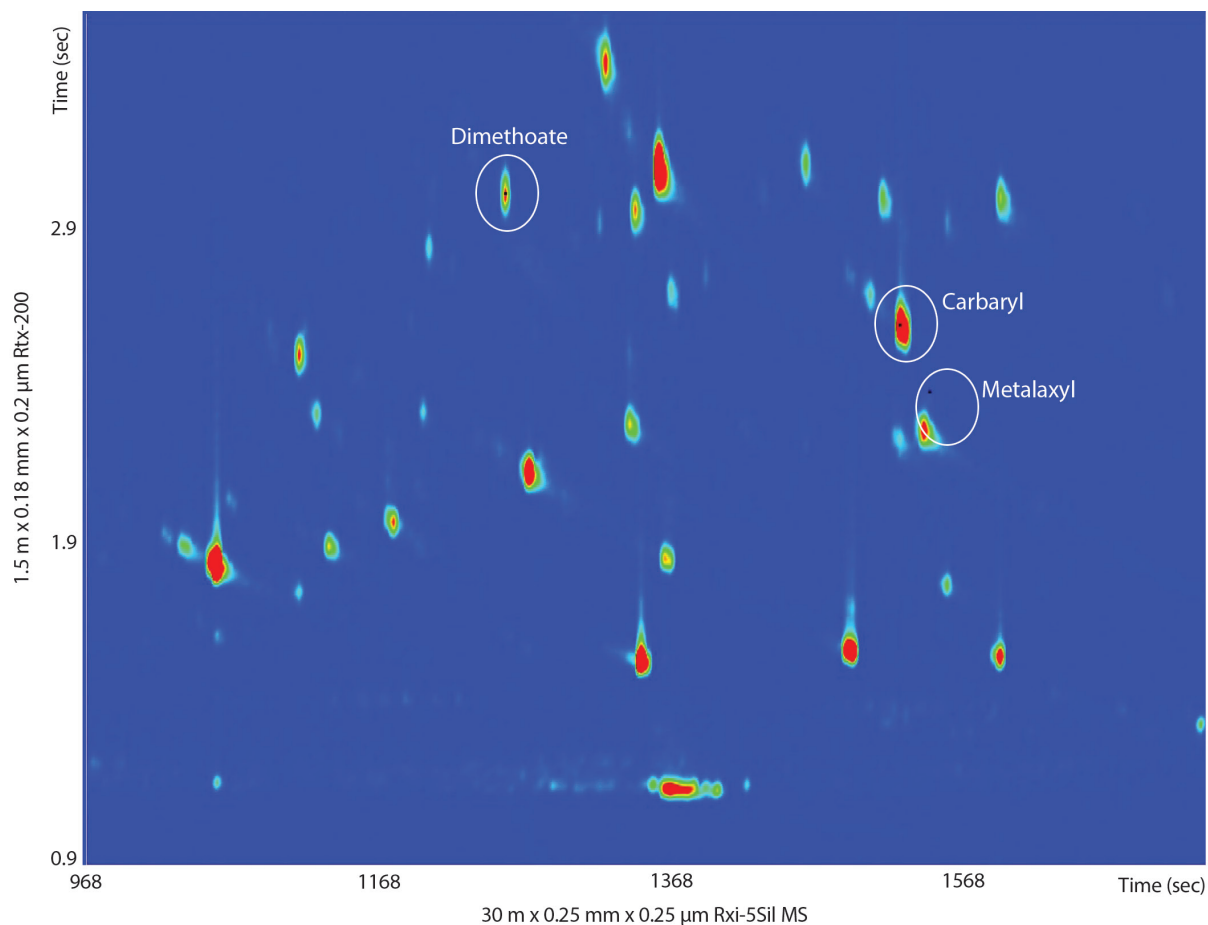


GCxGC-TOFMS Chromatogram of QuEChERS Extract of Red Bell Pepper Showing Incurred Pesticides Using Rxi-5Sil MS and Rtx-200



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

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

Diluent: Acetonitrile

Injection
Inj. Vol.: 1 μL splitless (hold 1 min)
Liner: Gooseneck splitless (5 mm) w/deactivated wool (cat.# 22973-200.1)
Inj. Temp.: 250 °C
Purge Flow: 40 mL/min

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

Carrier Gas
Modulation
Modulator Temp. Offset: 25 °C
Second Dimension
Separation Time: 4 sec
Hot Pulse Time: 1.2 sec
Cool Time between Stages: 0.8 sec

Detector TOFMS
Transfer Line Temp.: 290 °C
Analyzer Type: TOF
Source Temp.: 225 °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 μL of QuEChERS internal standard mix for GC-MS analysis (cat.# 33267) and 100 μL 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™ European method extraction salts (cat.# 26236) were added followed by another 1 minute shake. The sample was then centrifuged with Q-sep™ 3000 centrifuge (cat.# 26230).

dSPE: Add 1 mL extract to QuEChERS dSPE cleanup tube containing 150 mg MgSO₄, 25 mg PSA, and 25 mg C18 (cat.# 26216). Shake for 30 seconds and centrifuge with Q-sep™ 3000 centrifuge (cat.# 26230).