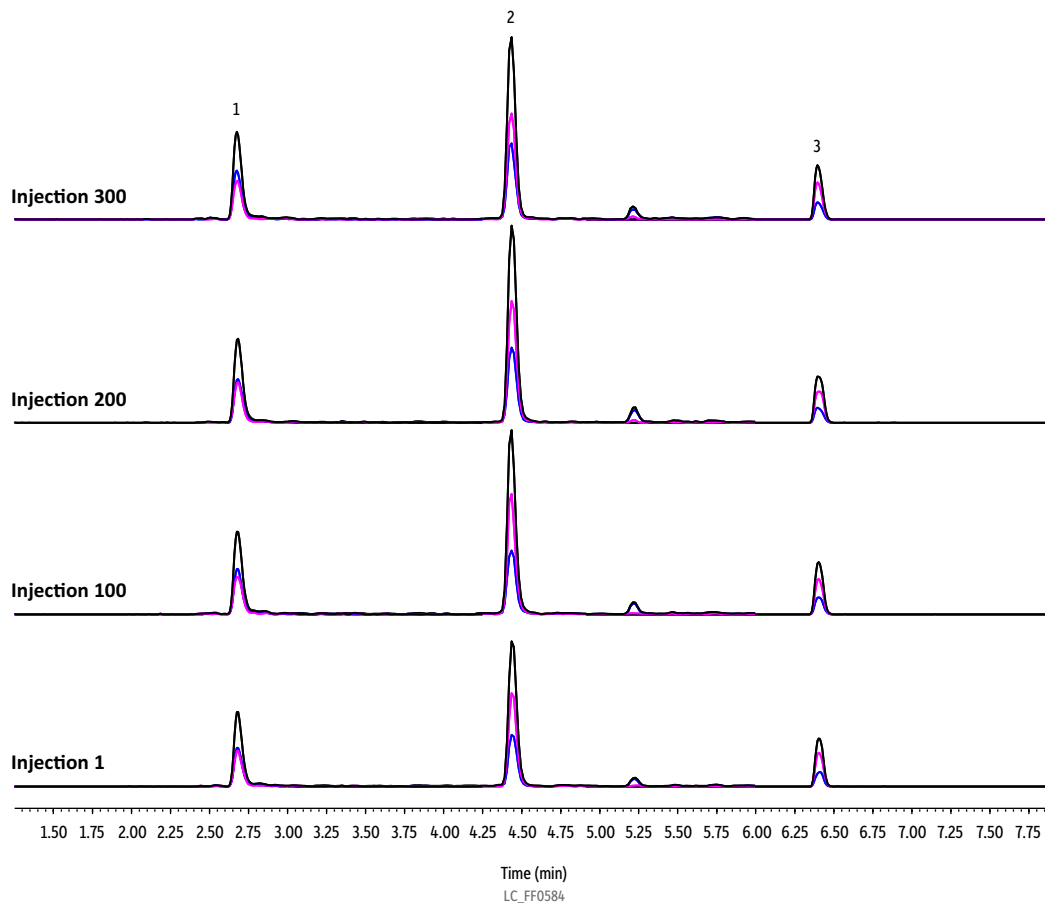


# ILSP Lifetime Study with Avocado



Peaks	tr (min)	Conc. (ng/g)	Precursor Ion	Product Ion 1	Product Ion 2
1. Imidacloprid	2.678	50	256.1	175.0	209.0
2. Fenhexamid	4.557	50	302.1	97.1	55.05
3. Eprinomectin	6.396	50	914.6	186.1	154.1

**Column** Raptor ARC-18 (cat.# 9314A12)  
**Dimensions:** 100 mm x 2.1 mm ID  
**Particle Size:** 2.7 µm  
**Pore Size:** 90 Å  
**Guard Column:** Raptor ARC-18 EXP guard column cartridge 5 mm, 2.1 mm ID, 2.7 µm (cat.# 9314A0252)  
**Temp.:** 50 °C  
**Sample**  
**Diluent:** Acetonitrile, 0.1% acetic acid  
**Inj. Vol.:** 3 µL  
**Mobile Phase**  
**A:** Water, 0.2% formic acid, 2 mM ammonium formate  
**B:** Methanol, 0.2% formic acid, 2 mM ammonium formate  
**C:** Methanol, 0.2% formic acid, 10 mM ammonium formate

**Detector** MS/MS  
**Ion Source:** Electrospray  
**Ion Mode:** ESI+  
**Mode:** MRM  
**Instrument** UHPLC  
**Notes**

### Sample Fortification and Extraction

Avocado was peeled and homogenized, and 5 g of sample was weighed into a 50 mL polypropylene tube. 10 mL of acetonitrile containing 0.1% acetic acid was added to the sample and vortexed. Samples were shaken on a shaker table for 10 minutes and then centrifuged at 4200 rpm for 10 minutes. An aliquot was transferred to a vial and fortified with analytes for a final concentration of 50 ng/g. The sample was vortexed, and an aliquot transferred to a 0.2 µm PTFE Thomson filter vial (cat.# 25893) and filtered prior to injection.

### In-Line Sample Preparation (ILSP)

The UHPLC system was equipped with an auxiliary pump; 6-port, high-pressure switching valve; and dual-directional 5 x 2.1 mm Revive ILSP Pesticides cartridge and holder (cat.# 27882). At 5.5 min, after the target compounds had all eluted from the ILSP cartridge and were undergoing analysis, valve switching was used as described below to flush the ILSP cartridge and wash trapped matrix components to waste. At 7.0 min, the original valve configuration, where the ILSP cartridge is in-line with the analytical column, was restored and the system was brought back to equilibrium prior to the next injection.

- 0 min; valve position 0
- 0 min; C flow= 0 mL/min
- 5.49 min; C flow= 0 mL/min
- 5.5 min; valve position 1
- 5.5 min; C flow= 1 mL/min
- 6.9 min; C flow=1 mL/min
- 7 min; C flow= 0 mL/min
- 7 min; valve position 0

Time (min)	Flow (mL/min)	%A	%B
0.00	0.4	95	5
2	0.4	40	60
4	0.4	25	75
6	0.4	0	100
8	0.4	0	100
8.01	0.4	95	5
10	0.4	95	5