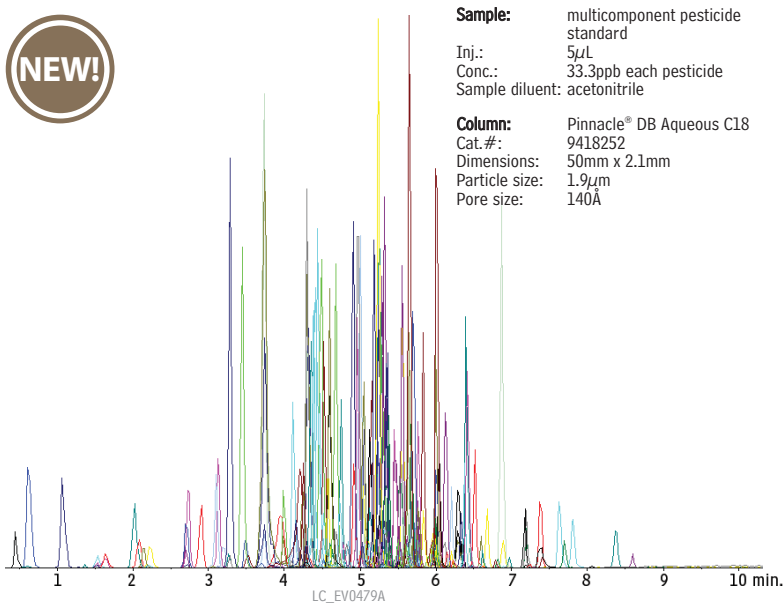


Pesticides on Pinnacle® DB Aqueous C18 (LC/MS/MS, ESI+)



**Sample:** multicomponent pesticide standard  
**Inj.:** 5µL  
**Conc.:** 33.3ppb each pesticide  
**Sample diluent:** acetonitrile  
**Column:** Pinnacle® DB Aqueous C18  
**Cat.#:** 9418252  
**Dimensions:** 50mm x 2.1mm  
**Particle size:** 1.9µm  
**Pore size:** 140Å

**Conditions:**

**Mobile phase:** A: 10mM NH<sub>4</sub>OAc in water  
 B: 10mM NH<sub>4</sub>OAc in methanol

| Time (min.) | %B |
|-------------|----|
| 0.0         | 10 |
| 1.0         | 10 |
| 8.0         | 90 |
| 10.0        | 90 |
| 11.0        | 10 |

**Flow:** 600µL/min.  
**Temp.:** 35°C  
**Instrument:** Shimadzu Prominence® UFLCXR  
**Det.:** Applied Biosystems 4000 QTRAP® LC/MS/MS system  
**Ion Source:** TurboIonSpray®, ESI+  
**IonSpray Voltage, ESI voltage:** 5kV (ESI+)  
**Gas 1:** 40psi  
**Gas 2:** 60psi  
**Source Temp.:** 500°C;  
**max pressure** ~7,200psi

**Peak List:**

| Compound            | Polarity | Mol. Wt. | RT (min.)  | Transition 1  |
|---------------------|----------|----------|------------|---------------|
| methamidophos       | positive | 141.13   | 0.45       | 142.0 → 94.0  |
| acephate            | positive | 183.17   | 0.62       | 184.0 → 142.8 |
| bentazone           | negative | 240.28   | 0.77       | 239.0 → 131.8 |
| omethoate           | positive | 213.14   | 1.07       | 214.0 → 124.9 |
| bromoxynil          | negative | 276.91   | 1.32       | 275.9 → 80.8  |
| butoxycarboxin      | positive | 222.27   | 1.64       | 223.1 → 86.1  |
| aldicarb sulfioxide | positive | 206.26   | 2.03       | 207.1 → 132.1 |
| methomyl            | positive | 162.21   | 2.08       | 163.1 → 88.1  |
| Toxynil             | negative | 370.92   | 2.46       | 369.8 → 126.7 |
| thiamethoxam        | positive | 291.7    | 2.7        | 292.0 → 211.0 |
| monocrotophos       | positive | 223.17   | 2.73       | 224.1 → 127.0 |
| dimethoate          | positive | 229.26   | 2.9        | 230.1 → 199.0 |
| fenuron             | positive | 164.21   | 3.1        | 165.1 → 72.1  |
| dioxacarb           | positive | 223.23   | 3.12       | 224.0 → 123.0 |
| dicrotophos         | positive | 237.19   | 3.28       | 238.0 → 112.0 |
| vamidothion         | positive | 287.34   | 3.45       | 288.0 → 146.0 |
| carbendazim         | positive | 191.19   | 3.73       | 192.0 → 160.0 |
| aldicarb            | positive | 190.27   | 3.73       | 208.1 → 116.0 |
| formetanate         | positive | 221.26   | 3.74       | 222.1 → 165.2 |
| acetamiprid         | positive | 222.67   | 3.95       | 223.1 → 126.1 |
| carbetamide         | positive | 236.27   | 3.99       | 237.0 → 192.0 |
| oxamyl              | positive | 219.26   | 3.99       | 237.1 → 72.2  |
| aminocarb           | positive | 208.26   | 4.11, 4.44 | 209.2 → 137.1 |
| propoxur            | positive | 209.24   | 4.15       | 210.1 → 111.0 |
| oxadixyl            | positive | 278.31   | 4.21       | 279.0 → 219.0 |
| bendiocarb          | positive | 223.23   | 4.24       | 224.1 → 109.1 |
| thiacloprid         | positive | 252.71   | 4.25       | 253.2 → 126.1 |
| thiophanate methyl  | positive | 342.4    | 4.3        | 343.0 → 151.0 |
| methabenziazuron    | positive | 221.28   | 4.31       | 222.0 → 165.1 |
| tricyclazole        | positive | 189.23   | 4.35       | 190.0 → 163.0 |
| pyracarbolid        | positive | 217.27   | 4.38       | 218.2 → 125.0 |
| propamocarb         | positive | 188.27   | 4.41       | 189.2 → 102.2 |
| carboxin            | positive | 235.3    | 4.51       | 236.0 → 143.0 |
| ethiofencarb        | positive | 225.31   | 4.52       | 226.1 → 106.9 |
| carbaryl            | positive | 201.22   | 4.58       | 202.1 → 145.1 |
| thiabendazole       | positive | 201.25   | 4.6        | 202.0 → 175.0 |
| carbanilide         | positive | 212.25   | 4.6        | 213.1 → 94.0  |
| clethodim           | positive | 359.91   | 4.61       | 360.0 → 164.0 |
| tebutiuron          | positive | 228.32   | 4.68       | 229.2 → 172.4 |

| Compound            | Polarity | Mol. Wt. | RT (min.)  | Transition 1  |
|---------------------|----------|----------|------------|---------------|
| fluometuron         | positive | 232.21   | 4.75       | 233.1 → 72.0  |
| metobromuron        | positive | 259.1    | 4.82       | 259.0 → 170.2 |
| flutriafol          | positive | 301.3    | 4.84       | 302.0 → 123.0 |
| chlortoluron        | positive | 212.68   | 4.92       | 213.1 → 72.2  |
| simetryn            | positive | 213.31   | 4.96       | 214.0 → 124.0 |
| pirimicarb          | positive | 238.29   | 4.97       | 239.2 → 72.1  |
| forchlorfenuron     | positive | 247.68   | 5.04       | 248.0 → 129.1 |
| siduron             | positive | 232.32   | 5.09       | 233.3 → 137.2 |
| ethofumesate        | positive | 286.35   | 5.11       | 304.0 → 121.0 |
| cycluron            | positive | 198.31   | 5.13       | 199.1 → 89.1  |
| diuron              | positive | 233.1    | 5.13       | 233.1 → 72.0  |
| diethofencarb       | positive | 267.33   | 5.15       | 268.0 → 226.0 |
| furalaxyl           | positive | 301.34   | 5.18       | 302.2 → 95.0  |
| methiocarb          | positive | 225.31   | 5.24       | 226.1 → 169.2 |
| sebumeton           | positive | 225.29   | 5.24       | 226.2 → 169.9 |
| terbumeton          | positive | 225.29   | 5.25       | 226.2 → 169.9 |
| prometon            | positive | 225.29   | 5.26       | 226.2 → 142.3 |
| paclobutrazol       | positive | 293.8    | 5.26       | 294.0 → 70.0  |
| promecarb           | positive | 207.27   | 5.27       | 208.2 → 109.2 |
| dimoxystrobin       | positive | 326.39   | 5.27       | 327.1 → 205.0 |
| ametryn             | positive | 227.33   | 5.29       | 228.2 → 186.2 |
| methoprotryne       | positive | 271.39   | 5.32       | 272.2 → 240.2 |
| triadimefon         | positive | 293.75   | 5.32       | 294.0 → 197.0 |
| mexacarbate         | positive | 222.28   | 5.34       | 223.2 → 166.2 |
| fludioxinil         | negative | 248.19   | 5.34       | 247.0 → 179.9 |
| boscalid            | negative | 343.21   | 5.36       | 343.0 → 307   |
| azoxystrobin        | positive | 403.3    | 5.36       | 404.1 → 372.1 |
| methoxyfenozide     | positive | 368.47   | 5.38       | 369.0 → 149.0 |
| cyproconazole       | positive | 291.78   | 5.39       | 292.2 → 70.2  |
| prothioconazole     | negative | 344.26   | 5.41       | 341.9 → 305.8 |
| flufenacet          | positive | 363.34   | 5.46       | 364.0 → 152.0 |
| butafenacil         | positive | 474.82   | 5.47       | 492.2 → 331.1 |
| myclobutanil        | positive | 288.78   | 5.51       | 289.0 → 70.0  |
| dimethomorph        | positive | 387.86   | 5.52, 5.54 | 388.0 → 301.0 |
| bromuconazole 47    | positive | 377.06   | 5.54       | 378.0 → 159.0 |
| prometryn           | positive | 241.36   | 5.55       | 242.2 → 158.1 |
| fipronil            | negative | 437.15   | 5.56       | 434.9 → 329.8 |
| triticinazole       | positive | 317.81   | 5.58       | 318.0 → 70.0  |
| tetraconazole       | positive | 372.12   | 5.6        | 372.0 → 159.0 |
| uniconazole         | positive | 291.78   | 5.62       | 292.2 → 70.2  |
| fluoaxastrobin      | positive | 458.83   | 5.62       | 459.2 → 427.2 |
| cyazofamid          | positive | 324.78   | 5.63       | 325.0 → 108.0 |
| terbutryn           | positive | 241.36   | 5.65       | 242.2 → 186.0 |
| tebufenozide        | positive | 352.47   | 5.65       | 353.1 → 133.1 |
| chloroxuron         | positive | 290.75   | 5.67       | 291.0 → 72.0  |
| picoxystrobin       | positive | 367.25   | 5.67       | 368.0 → 145.0 |
| carfentrazone-ethyl | positive | 412.17   | 5.69       | 412.0 → 346.0 |
| diclobutrazol       | positive | 328.21   | 5.71       | 328.0 → 70.0  |
| fenoxycarb          | positive | 301.34   | 5.72       | 302.0 → 88.1  |
| diflubenzuron       | positive | 310.67   | 5.72       | 311.2 → 158.1 |
| neburon             | positive | 275.18   | 5.74       | 275.0 → 88.0  |
| flusiazole          | positive | 315.4    | 5.76       | 316.0 → 247.0 |
| epoxiconazole       | positive | 329.76   | 5.76       | 330.0 → 121.0 |
| fenbuconazole       | positive | 336.82   | 5.76       | 337.0 → 125.0 |
| bupirimate          | positive | 316.41   | 5.77       | 317.0 → 166.0 |
| zoxamide            | positive | 336.54   | 5.77       | 336.2 → 187.1 |
| rotenone            | positive | 394.42   | 5.79       | 395.0 → 213.0 |
| benalaxyl           | positive | 325.41   | 5.83       | 326.0 → 148.0 |
| tebuconazole        | positive | 307.82   | 5.84       | 308.0 → 70.0  |
| penconazole         | positive | 284.19   | 5.93       | 284.0 → 159.0 |
| cyprodinil          | positive | 225.29   | 5.96       | 226.0 → 93.0  |
| propiconazole       | positive | 342.22   | 5.96       | 342.0 → 159.0 |
| alanycarb           | positive | 399.52   | 5.98       | 400.1 → 238.2 |
| triflumuron         | positive | 358.68   | 5.99       | 359.1 → 156.1 |
| triflencarb         | positive | 257.78   | 6          | 258.1 → 120.0 |
| pyraclostrobin      | positive | 387.83   | 6          | 388.0 → 194.0 |
| benzoximate         | positive | 363.8    | 6.01       | 364.0 → 199.0 |
| pinoxaden           | positive | 400.52   | 6.01       | 401.3 → 317.2 |
| clofentezine        | positive | 303.15   | 6.11       | 303.0 → 138.0 |
| trifloxystrobin     | positive | 408.38   | 6.12       | 409.2 → 186.0 |
| prochloraz          | positive | 376.67   | 6.21       | 376.0 → 308.0 |
| difenoconazole      | positive | 406.28   | 6.29       | 406.0 → 251.0 |
| benfuracarb         | positive | 410.53   | 6.29       | 411.2 → 195.1 |
| triflumizole        | positive | 345.75   | 6.38       | 346.1 → 278.1 |
| buprofezin          | positive | 305.44   | 6.4        | 306.0 → 201.0 |
| piperonyl butoxide  | positive | 338.45   | 6.42       | 356.2 → 177.2 |
| pyriproxyfen        | positive | 321.28   | 6.52       | 322.0 → 96.0  |
| propargite          | positive | 350.48   | 6.68       | 368.0 → 231.0 |
| etoxazole           | positive | 359.42   | 6.87       | 360.1 → 141.0 |
| amitraz             | positive | 293.41   | 6.89       | 294.2 → 163.3 |
| noviflumuron        | negative | 529.1    | 7.08       | 527.1 → 343.8 |
| pyridaben           | positive | 364.94   | 7.18       | 365.0 → 147.0 |
| fenpyroximate       | positive | 421.5    | 7.2        | 422.0 → 366.0 |
| fenpropimorph       | positive | 303.49   | 7.38       | 304.0 → 147.0 |
| spiroxamine         | positive | 297.48   | 7.63, 7.81 | 298.0 → 144.0 |
| spinosyn A          | positive | 731.97   | 8.37       | 732.6 → 142.2 |