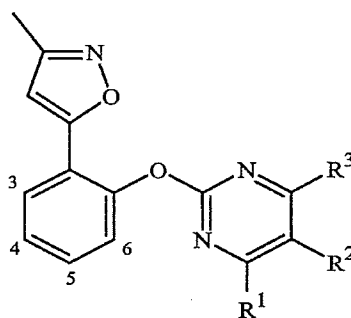


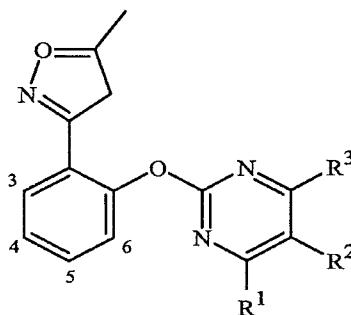
## Supplementary data

Seeds of plant species selected from barnyardgrass (*Echinochloa crus-galli*), kochia (*Kochia scoparia*), ragweed (common ragweed, *Ambrosia elatior*), Italian ryegrass (*Lolium multiflorum*), giant foxtail (*Setaria faberii*), and pigweed (*Amaranthus retroflexus*) were planted into a blend of loam soil and sand and treated preemergence with a directed soil spray using test chemicals formulated in a non-phytotoxic solvent mixture which included a surfactant.

At the same time, plants selected from these weed species and also wheat (*Triticum aestivum*), corn (*Zea mays*), blackgrass (*Alopecurus myosuroides*), and galium (catchweed bedstraw, *Galium aparine*) were planted in pots containing the same blend of loam soil and sand and treated with postemergence applications of test chemicals formulated in the same manner. Plants ranged in height from 2 to 10 cm and were in the one- to two-leaf stage for the postemergence treatment. Treated plants and untreated controls were maintained in a greenhouse for approximately 10 days, after which time all treated plants were compared to untreated controls and visually evaluated for injury. Plant response ratings, summarized in the Table 3, are based on a 0 to 100 scale where 0 is no effect and 100 is complete control. A dash (–) response means no test result.



|                                          | R <sup>1</sup> | R <sup>2</sup> | R <sup>3</sup> |
|------------------------------------------|----------------|----------------|----------------|
| <b>Present application</b> - Compound 58 | H              | Cl             | H              |
| <b>D1</b> - Compound 5-14 (see page 56)  | OMe            | H              | OMe            |



|                                              | R <sup>1</sup> | R <sup>2</sup> | R <sup>3</sup> |
|----------------------------------------------|----------------|----------------|----------------|
| <b>Present application</b> - Compound 60/153 | H              | Cl             | H              |
| <b>D1</b> - Compound 6-19 (see page 57)      | OMe            | H              | OMe            |

|                  |               | Present application<br>Compound 58 |                       | D1 - Compound 5-14<br>(see page 56) |
|------------------|---------------|------------------------------------|-----------------------|-------------------------------------|
| Common Name      | Application   | g ai/ha                            | Plant response rating | Plant response<br>rating            |
| Barnyardgrass    | Preemergence  | 500                                | 100                   | 0                                   |
| Common Ragweed   |               | 500                                | 90                    | 0                                   |
| Giant Foxtail    |               | 500                                | 100                   | 0                                   |
| Italian Ryegrass |               | 500                                | 20                    | 0                                   |
| Kochia           |               | 500                                | 100                   | 0                                   |
| Redroot Pigweed  |               | 500                                | 100                   | 70                                  |
| Barnyardgrass    | Preemergence  | 125                                | 90                    | 0                                   |
| Common Ragweed   |               | 125                                | 80                    | 0                                   |
| Giant Foxtail    |               | 125                                | 90                    | 0                                   |
| Italian Ryegrass |               | 125                                | 0                     | 0                                   |
| Kochia           |               | 125                                | 80                    | 0                                   |
| Redroot Pigweed  |               | 125                                | 100                   | 0                                   |
| Barnyardgrass    | Postemergence | 500                                | 90                    | 20                                  |
| Blackgrass       |               | 500                                | 70                    | 0                                   |
| Common Ragweed   |               | 500                                | 90                    | 0                                   |
| Galium           |               | 500                                | 90                    | 0                                   |
| Giant Foxtail    |               | 500                                | 80                    | 20                                  |
| Italian Ryegrass |               | 500                                | 40                    | 30                                  |
| Kochia           |               | 500                                | 90                    | 30                                  |
| P1184 Corn       |               | 500                                | 20                    | 0                                   |
| Redroot Pigweed  |               | 500                                | 100                   | 40                                  |
| Winter Wheat     |               | 500                                | 60                    | 0                                   |
| Barnyardgrass    | Postemergence | 125                                | 60                    | 0                                   |
| Blackgrass       |               | 125                                | 40                    | 0                                   |
| Common Ragweed   |               | 125                                | 50                    | 0                                   |
| Galium           |               | 125                                | 60                    | 0                                   |
| Giant Foxtail    |               | 125                                | 60                    | 0                                   |
| Italian Ryegrass |               | 125                                | 10                    | 0                                   |
| Kochia           |               | 125                                | 80                    | 0                                   |
| P1184 Corn       |               | 125                                | 0                     | 0                                   |
| Redroot Pigweed  |               | 125                                | 100                   | 30                                  |
| Winter Wheat     |               | 125                                | 0                     | 0                                   |

|                  |               | Present application<br>Compound 60/153 |                       | D1 - Compound 6-19<br>(see page 57) |
|------------------|---------------|----------------------------------------|-----------------------|-------------------------------------|
| Common Name      | Application   | g ai/ha                                | Plant response rating | Plant response rating               |
| Barnyardgrass    | Preemergence  | 500                                    | 100                   | 20                                  |
| Common Ragweed   |               | 500                                    | 90                    | 0                                   |
| Giant Foxtail    |               | 500                                    | 100                   | 0                                   |
| Italian Ryegrass |               | 500                                    | 30                    | 0                                   |
| Kochia           |               | 500                                    | 100                   | 0                                   |
| Redroot Pigweed  |               | 500                                    | 100                   | 70                                  |
| Barnyardgrass    | Preemergence  | 125                                    | 80                    | 0                                   |
| Common Ragweed   |               | 125                                    | 100                   | 0                                   |
| Giant Foxtail    |               | 125                                    | 80                    | 0                                   |
| Italian Ryegrass |               | 125                                    | 0                     | 0                                   |
| Kochia           |               | 125                                    | 40                    | 0                                   |
| Redroot Pigweed  |               | 125                                    | 100                   | 20                                  |
| Barnyardgrass    | Postemergence | 500                                    | 90                    | 20                                  |
| Blackgrass       |               | 500                                    | 70                    | 0                                   |
| Common Ragweed   |               | 500                                    | 90                    | 0                                   |
| Galium           |               | 500                                    | 100                   | 10                                  |
| Giant Foxtail    |               | 500                                    | 80                    | 0                                   |
| Italian Ryegrass |               | 500                                    | 60                    | 20                                  |
| Kochia           |               | 500                                    | 100                   | 40                                  |
| P1184 Corn       |               | 500                                    | 40                    | 10                                  |
| Redroot Pigweed  |               | 500                                    | 100                   | 50                                  |
| Winter Wheat     |               | 500                                    | 60                    | 0                                   |
| Barnyardgrass    | Postemergence | 125                                    | 60                    | 0                                   |
| Blackgrass       |               | 125                                    | 30                    | 0                                   |
| Common Ragweed   |               | 125                                    | 50                    | 0                                   |
| Galium           |               | 125                                    | 70                    | 0                                   |
| Giant Foxtail    |               | 125                                    | 40                    | 0                                   |
| Italian Ryegrass |               | 125                                    | 0                     | 0                                   |
| Kochia           |               | 125                                    | 90                    | 20                                  |
| P1184 Corn       |               | 125                                    | 0                     | 0                                   |
| Redroot Pigweed  |               | 125                                    | 100                   | 30                                  |
| Winter Wheat     |               | 125                                    | 0                     | 0                                   |

