

RESISTANCE MANAGEMENT: Rotate products from different IRAC groups. Avoid consecutive applications of products with the same group number.

| IRAC MODE OF ACTION GROUPS |                                                            |
|----------------------------|------------------------------------------------------------|
| 1A                         | Carbamates<br>Bendiocarb                                   |
| 2B                         | Fiproles<br>Fipronil                                       |
| 3A                         | Pyrethroids<br>Bifenthrin, Beta-cyfluthrin                 |
| 4A                         | Neonicotinoids<br>Imidacloprid, Thiamethoxam, Clothianidin |
| 5                          | Spinosyns<br>Spinosad                                      |
| 6                          | Avermectins<br>Abamectin                                   |
| 10A                        | Growth Inhibitors<br>Clofentezine                          |
| 12A                        | ATP Disruptors<br>Diafenthiuron                            |
| 15                         | Benzoylureas<br>Novaluron                                  |
| 22A                        | Oxadiazines<br>Indoxacarb                                  |
| 28                         | Diamides<br>Chlorantraniliprole, Tetraniliprole            |

| APPLICATION TIMING |                                                                        |
|--------------------|------------------------------------------------------------------------|
| Grubs:             | Apply spring/autumn when actively feeding. Irrigate after application. |
| Adults:            | Apply at first sign of activity. Evening applications preferred.       |
| Caterpillars:      | Apply when larvae small (early instars).                               |
| Mites:             | Apply at first sign of damage. Multiple applications may be required.  |
| General:           | Monitor regularly. Follow label rates and re-entry intervals.          |

| INSECTICIDE EFFICACY MATRIX             |              |           |            |      |        |             |             |               |                |              |           |            |         |              |           |          |              |                 |             |
|-----------------------------------------|--------------|-----------|------------|------|--------|-------------|-------------|---------------|----------------|--------------|-----------|------------|---------|--------------|-----------|----------|--------------|-----------------|-------------|
| Product / Active                        | IRAC         | ABB Adult | ABB Larvae | Ants | Aphids | Arg. Scarab | Stem Weevil | Billbug Adult | Billbug Larvae | Caterpillars | Couch Fly | Couch Mite | Cutworm | Ground Pearl | Nematodes | Armyworm | Mole Cricket | Pruinose Scarab | Sod Webworm |
| Abamectin                               | 6            |           |            |      |        |             |             |               |                |              |           | ✓          |         |              | ✓         |          |              |                 |             |
| Abamectin + Clofentezine                | 6 + 10A      |           |            |      |        |             |             |               |                |              |           | ✓          |         |              |           |          |              |                 |             |
| Bendiocarb                              | 1A           | ✓         |            |      |        |             |             |               |                |              |           |            |         |              |           |          |              |                 |             |
| Beta-cyfluthrin + Imidacloprid          | 3A + 4A      | ✓         | ✓          | ✓    |        | ✓           | ✓           | ✓             | ✓              |              |           | ✓          | ✓       |              |           | ✓        | ✓            | ✓               | ✓           |
| Bifenthrin                              | 3A           |           |            | ✓    |        |             | ✓           |               |                |              |           |            |         |              |           |          |              |                 | ✓           |
| Chlorantraniliprole                     | 28           |           | ✓          |      |        | ✓           | ✓           |               | ✓              | ✓            |           |            | ✓       |              |           | ✓        |              |                 | ✓           |
| Clothianidin + Clofentezine + Abamectin | 4A + 10A + 6 |           | ✓          |      |        | ✓           | ✓           | ✓             | ✓              |              | ✓         | ✓          |         | ✓            |           |          | ✓            |                 | ✓           |
| Diafenthiuron                           | 12A          |           |            |      |        |             |             |               |                |              |           | ✓          |         |              |           |          |              |                 |             |
| Fipronil                                | 2B           |           |            | ✓    |        |             | ✓           |               |                |              |           |            |         |              |           |          | ✓            |                 |             |
| Imidacloprid                            | 4A           |           | ✓          |      |        |             |             |               | ✓              |              |           |            |         |              |           |          |              |                 |             |
| Indoxacarb                              | 22A          |           |            |      |        | ✓           | ✓           |               |                | ✓            |           |            | ✓       |              |           | ✓        |              | ✓               |             |
| Indoxacarb + Novaluron                  | 22A + 15     |           | ✓          |      |        | ✓           | ✓           |               | ✓              | ✓            |           |            |         |              |           | ✓        |              | ✓               |             |
| ProForce Echelon Duo                    | 4A           |           | ✓          |      |        | ✓           |             |               | ✓              |              |           |            |         |              |           |          |              |                 |             |
| Spinosad                                | 5            |           |            |      |        |             | ✓           |               |                |              |           |            |         |              |           |          |              |                 |             |
| Tetraniliprole                          | 28           |           | ✓          |      |        |             |             |               | ✓              | ✓            |           |            | ✓       |              |           | ✓        |              | ✓               | ✓           |
| Thiamethoxam + Chlorantraniliprole      | 4A + 28      |           | ✓          |      |        | ✓           | ✓           |               | ✓              | ✓            |           |            |         |              |           | ✓        |              | ✓               | ✓           |
| Thiamethoxam                            | 4A           |           | ✓          |      |        | ✓           |             |               | ✓              |              |           |            |         |              |           |          |              | ✓               |             |

| ADJUVANTS & APPLICATION ENHANCERS                                                                        |                                                                                        |                                                                                        |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Surfactants (Non-Ionic)</b><br>Purpose: Improve spray coverage and penetration<br>Rate: 0.1-0.25% v/v | <b>Penetrants / Oils</b><br>Purpose: Enhance cuticle penetration<br>Rate: 0.5-1.0% v/v | <b>Stickers / Binders</b><br>Purpose: Increase residual activity<br>Rate: 0.1-0.5% v/v |
| <b>Wetting Agents</b><br>Purpose: Improve soil penetration<br>Rate: 2-5L/ha                              | <b>pH Buffers</b><br>Purpose: Optimize spray pH<br>Rate: As per label                  | <b>Anti-drift Agents</b><br>Purpose: Reduce spray drift<br>Rate: 0.1-0.2% v/v          |

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DISCLAIMER: Always read and follow product labels. This chart is a guide only. Efficacy may vary. Updated November 2025

