Autumn/winter insecticide guide 2019

## Registered chemicals for crops during autumn and winter 2019 in Western Australia

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CONTROL OF CANOLA SEEDLING PESTS P. 2-3

CONTROL OF LUPIN AND SOME GRAIN LEGUME SEEDLING PESTS P. 4

CONTROL OF CEREAL SEEDLING PESTS P. 5-6

PESTICIDE ACTIVE INGREDIENTS AND EQUIVALENT TRADE NAMES P. 7-8

**READ CHEMICAL LABEL BEFORE USE.**

**THIS INFORMATION IS ONLY A GUIDE AND DOES NOT LIST ALL REGISTERED INSECTICIDES**

## Control of canola seedling pests

Table 1. Registered insecticides for canola and oilseed crops. Insecticide active ingredient names are listed. Rates are millilitres per hectare (mL/ha) unless otherwise specified. Note: g/L refers to grams per litre and “-“ refers to not applicable.

| **No data** | Alpha-  cypermethrin  100g/L | Beta-cyfluthrin  25g/L | Bifenthrin  100g/L | Bifenthrin  250g/L | Chlorpyrifos 400g/L and Bifenthrin 20g/L | Chlorpyrifos  500g/L | Chlorpyrifos  300g/L and  L-cyhalothrin 15.4g/L | Cypermethrin  200g/L | Delta-methrin  27.5g/L | Diafenthiuron  500 g/L | Dimethoate  400g/L | Esfenvalerate  50g/L | Gamma-  cyhalothrin  150g/L | Lambda-  cyhalothin  250g/L | Maldison  440g/L | Maldison  500g/L | Maldison  1150g/L | Methidathion  400g/L | Omethoate  290g/L | Sulfoxaflor 240g/L |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Green peach aphid ᴪ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100 |
| Bryobia mite | - | - | 200\* | 80\* | 1000 | - | - | - | - | - | - | - | - | - | - | - | - | - | 120 | - |
| Balaustium mite | # | - | - | - | 1000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Redlegged earth mite | 50-100\* | 200 | 50-100\* | 20-40\* | 250-500 | 140-300\* | 150 | 50-75 | - | 400 or 600 | 40-85 | 50-70,  100\* | 8 | 9 | - | - | - | 200\* | 100 | - |
| Lucerne flea | - | - | - | - | 250-500 | 70 | - | - | - | 300 | 40-85 | - | - | - | 160-340 | 140-300 | 60-130 | 200\* | 100 | - |
| Vegetable weevil | 400 | - | 100-200 | 40-80 | 500-1000 | 800 | - | - | - | - | - | 400-500 | - | - | - | - | - | - | - | - |
| Cutworm | 75 | 200-400 | - | - | 875-1000 | 700-900 | - | 75 | 200 | - | - | 70 | 10-15 | 12-18 | - | - | - | - | - | - |
| Brown pasture looper | - | - | 50-100- | 20-40\* | 250-500 | - | - | - | - | - | - | 70 | 10 | 12 | - | - | - | - | - | - |
| False wire worm | - | - | - | - | 625-1000 | 1000 or 1500 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Rutherglen bug | - | - | - | - | - | - | - | - | - | - | - | - | 30 | 36 | 1250 | 1100 | 500 | - | - | - |

**#** rates of alphacypermethrin that are used against weevils have been effective on balaustium mite. Rates of bifenthrin used for bryobia mite have given poor kill of balaustium mite.

**\*** label rates of chemicals can be used on bare ground applied post seeding and prior to seedling emergence.

ᴪ pirimicarb and dimethoate registered but widespread resistance reported to these active ingredients; paraffinic oil registered.

Table 2. Seed dressing application (volume per kg of seed) for control or suppression of green peach aphids, redlegged earth mite (RLEM) and lucerne flea in canola. Refer to labels for dilution rate.

| **No data** | Dimethoate 400g/L | Fipronil 500g/L | Imidacloprid 600g/L | Thiamethoxam (210g/L) +  Lambda-cyhalothrin (37.5g/L) | Clothianidin (360g/L) + Imidacloprid (240g/L) |
| --- | --- | --- | --- | --- | --- |
| Green peach aphid |  |  | 400mL/100kg | 500-1000mL/100kg | 500mL/100kg |
| Redlegged earth mite | 330mL/100kg | 400mL/100kg | 400mL/100kg | 1000mL/100kg^ | 500mL/100kg^ |
| Lucerne flea |  | - | - | 1000mL/100kg^ | 500mL/100kg^ |

**^**label states suppression of pest.

### Blue oat mite

Generally a minor pest in Western Australia and mostly controlled with chemical and rates used against redlegged earth mite. Mite samples can be sent to Entomology, Department of Primary Industries and Regional Development, Western Australia for free identification.

### Slugs and snails

For best results broadcast baits evenly over the paddock before crop emergence. A better kill rate is achieved when there is little green plant material to compete with the baits to attract slugs/snails. Trials have shown that a baiting rate of 5kg/ha is sufficient in most cases. However, if numbers are high use the highest registered baiting rate. Baits may need to be reapplied. Rainfast baits will persist longer in the paddock.

Three bait types are available:

1. Metaldehyde: 50g/kg active ingredient (a.i). Baiting rate 5-7.5kg/ha.
2. Methiocarb: 20g/kg a.i. Baiting rate 5.5-22kg/ha.
3. Iron EDTA: 60g/kg a.i. Baiting rate 5-16kg/ha.

## Control of lupin and some grain legume seedling pests

Table 3. Registered insecticides for lupin and some grain legume crops. Insecticide active ingredient names are listed. Rates are given as millilitres per hectare (mL/ha) unless specified otherwise. Note: g/L refers to grams per litre and “-“ refers to not applicable.

| **No data** | Alpha- cypermethrin  100g/L | Beta-cyfluthrin  25g/L | Bifenthrin  100g/L | Bifenthrin  250g/L | Chlorpyrifos  500g/L and Bifenthrin 20g/L | Chlorpyrifos  500g/L | Chlorpyrifos  300g/L and  L-cyhalothrin 15.4g/L | Cypermethrin  200g/L | Delta-methrin  27.5g/L | Dimethoate  400g/L | Esfen-valerate  50g/L | Gamma-  cyhalothrin  150g/L | Lambda-  cyhalothin  250g/L | Methida-  thion  400g/L | Omethoate  290g/L | Pymetrozine 250 g/kg | Pymetrozine  500 g/kg |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Bryobia mite | - | - | 200\* | 80- | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Green peach aphid | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 400 g/ha | 200 g/ha |
| Redlegged earth mite | 50-100\* | 200 | 50-100\* | 20-40\* | 250-500 | 140-300\* | - | 50-75 | - | 90 | 50-70,  100\* | 8 | 9 | 90 | 100 | - | - |
| Lucerne flea | - | - | - | - | 250-500 | - | - | - | - | 85 | - | - | - | 90 | 100 | - | - |
| Cutworm | 75 | 200-400 | - | - | - | - | - | 75 | 200 | - | 70 | 10 or 15 | 12-18 | - | - | - | - |
| Brown pasture looper | - | - | 50-100\* | 20-40\* | 250-500 | - | 200 | - | 500 | - | 35 | 10 | 12 | - | - | - | - |

**\*** label rates of chemicals can be used on bare ground applied post seeding and prior to seedling emergence.

Table 4. Seed dressing application for control of redlegged earth mite (RLEM) and lucerne flea in lupin. Refer to labels for dilution rate.

| **No data** | Imidacloprid 600g/L | Dimethoate 400g/L |
| --- | --- | --- |
| Redlegged earth mite | 300mL/100 kg seed | 150mL/100kg seed |
| Lucerne flea | - | 150mL/100kg seed |

## Control of cereal seedling pests

Table 5. Registered insecticides for cereal crops. Insecticide active ingredient names are listed. Rates are given as millilitres per hectare (mL/ha) unless specified otherwise. Note: g/L refers to grams per litre and “-“ refers to not applicable.

| **No data** | Alpha- cypermethrin  100g/L | Beta-cyfluthrin 25g/L | Bifenthrin 100g/L | Bifenthrin 250g/L | Chlorpyrifos 500g/L and Bifenthrin 20g/L | Chlorpyrifos 500g/L | Chlorpyrifos 300g/L and  L-cyhalothrin 15.4g/L g/L | Cypermethrin 200g/L | Delta-methrin 27.5g/L | Dimethoate 400g/L | Esfen-valerate 50g/L | Gamma-  Cyhalothrin 150g/L | Lambda-cyhalothin 250g/L | Maldison 440g/L | Maldison 500g/L | Maldison 1150g/L | Methida-thion 400g/L | Omethoate 290g/L | Pirimicarb 850g/kg | Sulfoxaflor 240 g/L |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Aphids (including BYDV control) | 125  anti-feed | 250 or 500  anti-feed | - | - | - | - | 200 or 300 | - | - | 500  feeding damage only | 100-300  anti-feed | 10 or 15  anti-feed | 12 or 18  anti-feed | - | - | - | - | - | 250 - 300 g/ha | 50-100 |
| Cutworm | 75 | - | - | - | - | 700-900 | 200 or 300 | 75-150 | 200 | - | 70 | 10 or 15 | 12 or 18 | - | - | - | - | - | - | - |
| Lucerne flea | - | - | - | - | 250-500 | 70 | 120 | - | - | 55-85 | - | - | - | 160-340 | 140- 300 | 60- 130 | 200\* | 100 | - | - |
| Redlegged earth mite | 50-100\* | 200 | 50-100\* | 20-40\* | 250-500 | 140 | 150 | 50-75 | - | 55-85 | 50-70  100\* | 8 | 9 | - | - | - | 200\* | 100 | - | - |
| Webworm | 75 | 100-200 | 100 | 40 | 500 | 300 | 200 | 75 | 200 | - | 70 | 10 | 12 | - | - | - | - | - | - | - |

**\*** label rates of chemicals can be used on bare ground applied post seeding and prior to seedling emergence.

Table 6. Seed dressing application for significant pests in cereals. Refer to labels for dilution rate.

It is recommended that a synthetic pyrethroid top-up spray is applied 7-8 weeks after sowing imidacloprid treated seed for control of aphids vectoring barley yellow dwarf virus (BYDV).

| **No data** | Imidacloprid 600g/L | Thiamethoxam (210g/L) + Lambda-cyhalothrin (37.5g/L) | Chlorpyrifos (500g/L) |
| --- | --- | --- | --- |
| Aphids (including BYDV control) | 120 or 240mL/100kg seed (higher rate for increased length of control in high risk areas) | - | - |
| Aphids for feeding damage | - | 165-330mL/100kg seed # | - |
| Redlegged earth mite | - | 330mL/100kg seed^ | - |
| Lucerne flea | - | 330mL/100kg seed^ | - |
| Desiantha weevil larvae | - | - | 120mL/100kg seed |

^ label states suppression.

# higher rate in areas where higher pest pressure is expected or longer period of control required.

### Balaustium mite

Rates of alphacypermethrin registered for weevils have been effective on balaustium mite. The 1L/ha rate of Pyrinex Super® registered for balaustium in canola can be used in wheat and barley as it is registered for bryobia mites in these crops. Rates of bifenthrin used for bryobia mite have given poor kill of balaustium mite.

### Blue oat mite

Generally a minor pest in Western Australia and mostly controlled with rates of insecticides used against redlegged earth mite. Mite samples can be sent to Entomology, Department of Primary Industries and Regional Development, 3 Baron-Hay Court, South Perth, WA for free identification.

## Pesticide active ingredients and equivalent trade names

| Insecticide group | Chemical names | Trade names (list may not be complete - check with your retailer) |
| --- | --- | --- |
| 1A Carbamates | pirimicarb | Atlas, Aphidex 500, Piricarb WG, Piri-Ken, Pirimicarb 500, Pirimidex, Pirimor WG |
| 1B Organophosphates | chlorpyrifos 500g/L | Arysta LifeScience Chlorpyrifos 500, Chlorpyrifos, Chemicide, Chlorban, Chlorpos, Chlorpyrifos 500, Chop 500, Cobalt (also contains group 3A Lamda-cyahlothrin15.4g/L), Cutter, Cuft, Foison Chlorpyrifos 500, Fortune 500, Generifos 500, Pest Controller, Kensban, Lorsban 500, Strike-Out, Pyrinex, Pyrinex Super (also contains group 3A bifenthrin 20g/L) |
| 1B Organophosphates | dimethoate 400g/L | Danadim, Dimetholinx, Dimethoate, Dimethoate 400, Dimethoate Insecticide, Rover, Saboteur, Stalk |
| 1B Organophosphates | maldison 1150g/L | Hy-Mal |
| 1B Organophosphates | methidathion 400g/L | Suprathion 400EC |
| 1B Organophosphates | omethoate 290g/L | Le-Mat 290 SL |
| 1B Organophosphates | phosmet | Imidan |
| 2B Phenylpryazoles (Fiproles) | fipronil 500g/L | Cosmos seed dressing |
| 3A Pyrethroids Pyrethrins | alphacypermethrin 100g/L | Alf, Alpha100, Alpha Cyper, Alpha-Cyp100 Duo, Alpha-cypermethrin 100, Alpha Duo, Alpha Duo 100, Alpha Duop 100, Alpha-Scud Elite, Alphasip Duo, Astound Duo, Buzzard, Centaur 100, Dictate 100, Dominex Duo, Fastac Duo, Ken-Tac 100, Mascot Duo, Maya Alfa, Unialphacyper 100, Unichoice100 |
| 3A Pyrethroids Pyrethrins | alphacypermethrin 250g/L | Alpha Forte |
| 3A Pyrethroids Pyrethrins | alphacypermethrin 300g/L | Imtrade Ellias 300, Kelpie Alpha-C 300 |
| 3A Pyrethroids Pyrethrins | beta-cyfluthrin 25g/L | Bulldock Duo |
| 3A Pyrethroids Pyrethrins | bifenthrin 100g/L | Agfen, Arrow, Astral, Beast, Bifenthrin, Bifendoff, Bisect, Compel, Disect, Fenstar, Killzone, Out Of Bounds, Sarritor, Surefire Bent, Talstar, Tal-Ken, Venom, Zeus, Pyrinex Super (bifenthrin 20g/L & also contains group 1B chlorpyrifos 500g/L) |
| 3A Pyrethroids Pyrethrins | bifenthrin 250g/L | Astral 250, Bifenthrin 250, Stockade, Talstar 250 |
| 3A Pyrethroids Pyrethrins | cypermethrin 200g/L | Boom 200, Cypermethrin 200, Cypershield 200, Cyrux 200, Scud Elite |
| 3A Pyrethroids Pyrethrins | cypermethrin 250g/L | Arrivo 250, Cyperplus 250, Cypermethrin 250, Cyrux 250 |
| 3A Pyrethroids Pyrethrins | cypermethrin 260g/L | Cypermethrin 260 |
| 3A Pyrethroids Pyrethrins | deltamethrin 27.5g/L | Ballistic-Elite, D-Sect, Decis Options, Delta Duo, Deltamethrin Duo, Delta Shield, Dicast |
| 3A Pyrethroids Pyrethrins | esfenvalerate 50g/L | Sumi-Alpha Flex Insecticide. |
| 3A Pyrethroids Pyrethrins | gamma-cyhalothrin 150g/L | Trojan |
| 3A Pyrethroids Pyrethrins | lambda-cyhalothrin 250g/L | Arysta LifeScience Lambda-cyhalothrin 250, Cobalt (also contains group 1B Chlorpyrifos 300g/L), Cyhella, F.S.A. Lambda Cyhalothrin, Flipper, Karate Zeon Tech, Kung Fu, Lambda, Lamdacyhalothrin, Matador with Zeon Tech |
| 3A Pyrethroids Pyrethrins | lambda-cyhalothrin 37.5g/L | Cruiser Opti seed dressing (also contains Group 4A thiamethoxam) |
| 3A Pyrethroids Pyrethrins | permethrin 40:60, 500g/L | Ambush, Axe, Pounce, Hellfire, Permethrin, Permekil, Permerid, Stakeout |
| 4A Neonicotinoids | clothianidin 360g/L | Poncho Plus seed dressing (also contains Group 4A imidacloprid 240 g/L) |
| 4A Neonicotinoids | imidacloprid 600g/L | Confederate, Emerge, F. S. A. Imidacloprid 600, Gaucho, Genero, Guardian, Immi 600, Impressor 600, Imida 600, Imidacloprid 600, Inflict 600, Nuprid, Picus, Protectaflo, RedQueen 600, Savage 600, Senator 600, Imi- Flow, Zooter 600 (seed dressings) |
| 4A Neonicotinoids | imidacloprid 180g/L | Arrow Plus, Foliarflo Plus, Hombre, Imid- Triadimenol, Protectaflo, ProLeaf, ProGuard, Tri Power, Veteran Plus, Zorro (seed dressings) |
| 4A Neonicotinoids | thiamethoxam 210g/L | Cruiser Opti seed dressing, Kenso Agcare Kenzar seed dressing (also contain Group 3A lambda-cyhalothrin 37.5g/L) |
| 4C Sulfoxaflor | sulfoxaflor 240 g/L | Transform |
| 9B Pyridine azomethine derivatives | pymetrozine | Eurochem Metro 250 WP (250 g/kg), Chess (500 g/kg) |
| 11 Bacillus thuringiensis (insecticidal proteins) | Bt (k) | Bacchus WG, Biocrystal, Delfin WG, Dipel SC, Dipel DF, Xentari WG |
| 12a Diafenthiuron | diafenthiuron 500g/L | Pegasus |

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