



### Seed Dressing and In-Furrow Fungicides Registered for Use on Barley, Oats and Triticale in WA – 2014. Updated 29 Jan 2014

This information is a guide only. Chemical labels should be read and rates should be checked before using fungicides. Mention of trade names does not imply endorsement of any company's products. Symbols used refer to footnotes. *Although every care has been taken in preparation of this information, please inform Kith Jayasena if any errors or omissions have occurred - email kithsiri.jayasena@agric.wa.gov.au or Ph: (08) 9892 8477.*

|   |                           | Barley                    |                                |                                  |                                |                |           |                         | Oats                 | Triticale                |                   | Products example by Trade Names  |
|---|---------------------------|---------------------------|--------------------------------|----------------------------------|--------------------------------|----------------|-----------|-------------------------|----------------------|--------------------------|-------------------|--|
| Active ingredient (fungicide + insecticide)                         | Smuts                     |                           | Scald                          | Net-type net blotch (seed-borne) | Powdery mildew                 | Pythium spp.   | Leaf rust | Rhizoctonia             | Smut (covered/loose) | Flag smut (seed - borne) | Loose smut        |  |
|   | Covered                   | Loose                     |                                |                                  |                                |                |           |                         |                      |                          |                   |  |
| Carboxin + cypermethrin <sup>^</sup>                                | 70/125 - 250 g or mL      | 250 g or mL               | -                              | -                                | -                              | -              | -         | -                       | 75/125 - 250 g or mL | 75/125 - 250 g or mL     | 125 - 250 g or mL | • Vitaflo <sup>®</sup> C • Advance <sup>®</sup> • Vitavax <sup>®</sup> 750C <sup>®</sup>   |
| Carboxin + thiram   | 250 - 500 mL              | 500 mL                    | -                              | 250 or 375 mL                    | -                              | -              | -         | -                       | 250 - 500 mL         | 250 mL                   | 500 mL            | • Vitavax <sup>®</sup> 200FF   |
| Difenoconazole + Metalaxyl-M  | 100 - 130 mL              | 130 mL <sup>*</sup>       | -                              | 130 - 260 mL                     | -                              | 100/130/260 mL | -         | 260 mL <sup>*</sup>     | -                    | -                        | -                 | • Dividend <sup>®</sup> M  |
| Difenoconazole + Metalaxyl-M + sedaxane                             | 180 mL                    | 180 mL                    | -                              | 180 - 360 mL                     | -                              | 180 - 360 mL   | -         | 360 mL <sup>*</sup>     | 180 mL               | 180 mL                   | 180 mL            | • Vibrance   |
| Fluquinconazole   | 300 - 450 mL <sup>*</sup> | 300 - 450 mL <sup>*</sup> | 300 - 450 mL <sup>*</sup>      | -                                | 300 - 450 mL <sup>*</sup>      | -              | -         | -                       | -                    | -                        | -                 | • Jockey <sup>®</sup> Stayer • Maxiflo <sup>®</sup> • Quantum <sup>®</sup> Pro   |
| Flutriafol + cypermethrin <sup>^</sup>                              | 100 g or mL               | 100 g or mL               | 100 g or mL <sup>##</sup>      | -                                | 100 g or mL <sup>##</sup>      | -              | -         | -                       | -                    | -                        | -                 | • Vincit <sup>®</sup> C • Pinnacle <sup>®</sup> 25 • Veteran <sup>®</sup> C • Vibrant <sup>®</sup> 25C • Allsow <sup>®</sup> • Arrow <sup>®</sup> C <sup>##</sup> • Armour <sup>®</sup> C <sup>##</sup> • Pinnacle <sup>®</sup> 100 <sup>##</sup> • V-Flow <sup>##</sup> |
| Flutriafol + metalaxyl + imidacloprid                               | 400 mL                    | 400 mL                    | -                              | -                                | -                              | 400 mL         | -         | 400 mL <sup>*</sup>     | 400 mL               | 400 mL                   | 400 mL            | • Tri-Power  |
| Flutriafol (with zinc)  | 400 mL                    | 400 mL                    | -                              | -                                | -                              | -              | -         | -                       | 400 mL               | -                        | 400 mL            | • Vincit <sup>®</sup> Zinc • Veteran <sup>®</sup> C Zinc   |
| Ipconazole + cypermethrin <sup>^</sup>                              | 100 mL                    | 100 mL                    | 100 mL                         | 100 mL                           | -                              | -              | -         | -                       | 100 mL               | -                        | -                 | • Rancona C  |
| Ipconazole + metalaxyl  | 80 mL                     | 80 mL                     | -                              | -                                | -                              | 200 - 320 mL   | -         | 320 mL <sup>*</sup>     | 80 mL                | -                        | -                 | • Rancona <sup>®</sup> Dimension <sup>®</sup>  |
| Penflufen   | 40 - 80 mL                | 40 - 80 mL                | -                              | -                                | -                              | -              | -         | 40 - 80 mL <sup>*</sup> | -                    | -                        | -                 | • EverGol Prime  |
| Prothioconazole + tebuconazole                                      | 15 mL                     | 15 mL                     | 15 mL                          | 15 mL                            | -                              | -              | -         | -                       | 15 mL                | -                        | -                 | • Raxil PRO  |
| Tebuconazole + imidacloprid   | 400 mL (200 mL)           | 400 mL (200 mL)           | -                              | -                                | -                              | -              | -         | -                       | 400 mL (200 mL)      | -                        | -                 | • Hombre <sup>®</sup> Ultra • Proguard <sup>®</sup> Plus • (Hombre <sup>®</sup> Ultra)   |
| Tebuconazole+ cypermethrin <sup>^</sup> or triflumuron <sup>^</sup> | 100 g or mL               | 100 g or mL               | -                              | -                                | -                              | -              | -         | -                       | 100 g or mL          | -                        | -                 | • Raxil <sup>®</sup> T • Proguard <sup>®</sup> T • Innova Tebuconazole 25C or T • Blaster <sup>®</sup> 25C • Teby-C <sup>®</sup> • Veto <sup>®</sup> 25C or T • SeedUp <sup>®</sup> • Tebu C25   |
| Triadimenol+ imidacloprid   | 400 mL                    | 400 mL                    | 400 mL <sup>*</sup>            | -                                | 400 mL                         | -              | -         | -                       | 400 mL               | -                        | -                 | • Proleaf <sup>®</sup> Plus <sup>^</sup> • Zorro <sup>®</sup> Ultra  |
| Triadimenol + cypermethrin <sup>^</sup> or triflumuron <sup>^</sup> | 100 - 150 g or mL         | 100 - 150 g or mL         | 100 - 150 g or mL <sup>*</sup> | -                                | 100 - 150 g or mL <sup>*</sup> | -              | -         | -                       | 100 - 150 g or mL    | -                        | -                 | • Proleaf <sup>®</sup> C or T • Foliarflo <sup>®</sup> C or T • Phoenix <sup>®</sup> C • Tridim <sup>®</sup> C • Vanguard <sup>®</sup> 150C • Seedpik <sup>®</sup> 150 C • Triadimenol 150C (Syngenta)/+ (4 Farmers) • Battalion <sup>®</sup> C • Baytan <sup>®</sup> T  |
| Triticonazole + cypermethrin <sup>^</sup>                           | 100 mL <sup>*</sup>       | 100 mL <sup>*</sup>       | -                              | -                                | -                              | -              | -         | -                       | 100 mL               | -                        | -                 | • Premis <sup>®</sup> Protect • Titan <sup>®</sup> • Premis Pro C <sup>®</sup> • Real <sup>®</sup> 200C <sup>*</sup> • Caesar <sup>®</sup> ♦   |
| Applied as a fertiliser treatment (rate/ha)                         |                           |                           |                                |                                  |                                |                |           |                         |                      |                          |                   |  |
| Flutriafol (250 g/L)  | -                         | -                         | 200 - 400 mL                   | -                                | 200 - 400 mL                   | -              | -         | -                       | -                    | -                        | -                 | • Impact <sup>®</sup> • Jubilee <sup>®</sup> • Flutriafol 250 SC • Intake <sup>®</sup> Combi • Tricam <sup>®</sup> • Pollux <sup>®</sup> • Bayonet <sup>®</sup> • Furrowfol <sup>®</sup> 250 • Flufo <sup>®</sup>  |
| Flutriafol (500 g/L)  | -                         | -                         | 100 or 200 mL                  | -                                | 100 or 200 mL                  | -              | -         | -                       | -                    | -                        | -                 | • Impact <sup>®</sup> Endure • Flutriafol 500 SC   |
| Triadimefon   | -                         | -                         | -                              | -                                | 200 g <sup>v</sup>             | -              | -         | -                       | -                    | -                        | -                 | • 4 Farmers Triadimefon 500 WP or 500 dry <sup>v</sup>   |

**Note:** 1). A blank cell (-) indicates that product is not registered for use in the disease specified; 2). <sup>®</sup> registered trademark; 3). <sup>\*</sup> disease suppression only. 4). <sup>\*</sup>For use on barley, fluquinconazole must be used in conjunction with tebuconazole as per the registered label. 5). <sup>##</sup> Armour<sup>®</sup> C, Pinnacle<sup>®</sup> 100<sup>##</sup>, V-Flow<sup>##</sup> and Arrow<sup>®</sup> C<sup>##</sup> are the only flutriafol treatments registered for scald and powdery mildew in barley; but they are **not** registered for use in oats and triticale 6). <sup>v</sup>4Farmers Triadimefon 500 WP/dry is the only triadimefon product registered to control barley powdery mildew. 7). <sup>♦</sup> Real<sup>®</sup> 200C and Caesar<sup>®</sup> are **not** registered for use on oats. These products are the only triticonazole products registered for suppression of barley scald and powdery mildew. 8). Currently there are no fungicide seed dressing products registered to control barley leaf rust; 9). *Fluquinconazole* base products at higher rate suppress Take-all disease.

**New Products for 2014:**

- 1). Rancona<sup>®</sup> Dimension<sup>®</sup> for smut and Pythium control and suppression of Rhizoctonia.
- 2). Hombre<sup>®</sup> Ultra for smut control and reduce aphid feeding damage.

**Insecticides:**

- 1). <sup>^</sup>Cypermethrin and triflumuron compounds (insecticides) are effective against insect pests of stored grain.
- 2). <sup>^</sup>Hombre<sup>®</sup> Ultra (@ 200 mL/100kg seed), Proguard<sup>®</sup> Plus, Zorro<sup>®</sup>, Proleaf<sup>®</sup> Plus and Foliarflo<sup>®</sup> Plus are also registered for aphid control and the prevention of the spread of "barley yellow dwarf virus" (BYDV) in cereals crops.
- 3). Emerge<sup>™</sup> and Guardian<sup>®</sup> (imidacloprid as active constituent) has been registered as flowable seed treatment in control of insects including aphids that transmit BYDV.
- 4). Cruiser<sup>®</sup> Opti Insecticide which contains lambda-cyhalothrin with thiamethoxam for control of aphids that transmit BYDV, red-legged earth mite and lucerne flea.

**Caution about barley loose smut and powdery mildew control in 2014:**

- 1). Substantial amounts of loose smut were observed in barley varieties such as Hindmarsh in 2013 season in the south coast. To prevent further build-up of the disease in 2014, it is worth treating the barley seed with products containing *Penflufen*, *Difenoconazole + Metalaxyl-M + Sedaxane*, *Fluquinconazole + Tebuconazole* which were shown to be very effective in 2013 DAFWA studies.
- 2). In powdery mildew prone areas, especially southern region of WA, barley seed should be only treated with *Fluquinconazole* based products together with suitable smuticide.