



## ADVICE SUMMARY

### APPLICATION FOR VARIATION OF A REGISTERED CHEMICAL PRODUCT

**Product name:** CROP CARE JOCKEY SYSTEMIC SEED TREATMENT  
**Applicant:** CROP CARE AUSTRALASIA PTY LTD  
**Product number:** 61019  
**Application number:** 48000

**Purpose of Application and Description of Use:** Variation of the label approval to extend uses to include use on barley to control barley leaf scald, powdery mildew and to suppress net form net blotch, use on wheat to suppress glume blotch, reduce rate for use on wheat to control stripe rust, reduce withholding period, and add an export slaughter interval.

**Active Constituent(s):** FLUQUINCONAZOLE

#### **Regulatory Decision:**

To grant the application subject to the following conditions:

#### **Standard Conditions of Label Approval**

1. Label must contain a Date of Manufacture and Batch Number.

For full conditions, refer to [http://www.apvma.gov.au/advice\\_summaries/adv\\_summaries.shtml](http://www.apvma.gov.au/advice_summaries/adv_summaries.shtml).

#### **Non-Standard Conditions of Approval**

Nil

## **ADVICE**

### **APVMA Chemistry And Residues Program, Residues Team**

The applicant provided two residues trials each in barley and wheat. They were conducted in New South Wales and Western Australia during the 2008/09 growing season. Barley and wheat seed were treated at three application rates corresponding to 0.67x, 1x and 2x the maximum application rate and sown at the two sites. Forage was harvested from each treated plot at roughly 6 and 12 weeks after sowing, while grain and straw samples were collected at normal harvest, usually around 24 weeks after sowing. Untreated control samples of forage, straw and grain were collected for each trial.

Residues in wheat and barley forage collected 40-42 days after sowing seed treated at the proposed maximum rate were 0.13, 0.27, 0.29 and 0.44 mg/kg on a dry weight basis. After treatment at 2x the proposed maximum rate, forage residues on a dry weight basis were slightly higher, at 0.27, 0.42, 0.45, and 0.58 mg/kg. Residues in wheat and barley forage collected around 12 weeks after sowing seed treated at the maximum rate were <0.01, 0.03 (2), and 0.05 mg/kg on a dry weight basis. Again, for the 2x treatment, residues were slightly higher at 0.04, 0.05, 0.05, and 0.07 mg/kg on a dry weight basis. Residues in wheat and barley straw collected at the normal harvest after sowing seed treated at the maximum rate were <0.01, and 0.01 (3) mg/kg on a dry weight basis. Again, slightly higher residues were noted in straw grown from seed treated at 2x the proposed maximum rate, with residues of 0.01, 0.01, 0.02, and 0.02 mg/kg. All results for residues in wheat and barley grain, forage and straw are well below the established MRLs for fluquinconazole. No amendments to the MRL Standard are required.

A lactating cattle feeding study, previously submitted to the APVMA, was considered in conjunction with the feed residue data. Livestock dietary intake modelling including consideration of all relevant feed items potentially containing fluquinconazole residues show that grazing withholding periods of 6 weeks and 12 weeks for meat and dairy animals respectively are sufficient to ensure compliance with existing MRLs for mammalian meat, offal and milk. No changes are expected for the dietary burden in poultry and hence no changes to MRLs for poultry meat, offal or eggs are required. Depuration data from the cattle feeding study showed that a 7-week export slaughter interval was sufficient to ensure that residues in all tissues and milk of animals consuming feed containing fluquinconazole residues would be below the LOQ.

The National Estimated Daily Intake (NEDI) calculation is made in accordance with WHO Guidelines and is a conservative estimate of dietary exposure to chemical residues in food. The NEDI for fluquinconazole is equivalent to 18% of the Acceptable Daily Intake (ADI). It is concluded that the chronic dietary exposure of fluquinconazole is acceptable.

The residues section recommends that the APVMA be satisfied that the use of the product in accordance with the required label instructions would not be an undue hazard or likely to have an effect that is harmful as per section 14(3)(e)(i)&(ii) and that the residues aspects of section 14(5) of the Agvet Codes have been met. The residues section recommends that the APVMA be satisfied that the use of the product in accordance with the required instructions would not unduly prejudice trade and commerce between Australia and places outside Australia as per section 14(3)(e)(iv) of the Agvet Codes. Residues in exported wheat and barley are expected to be below the limit of quantitation, and detectable residues are not expected in any animal commodities, provided the label instructions are followed.

### Data relied on to provide the advice

Data No	Data Source*	Author(s)	Title	Date	Data Type	Data Sub-type	Authorising Party	Inherited Application No.
32536	S	Kate Allen	Determination of residues of fluquinconazole in the forage, grain and straw of barley and wheat following a seed dressing application of Jockey Systemic Seed Treatment at three rates, 50, 75 or 150g a.i./100kg of seed.	10 June 2009	Residues	Crop Residues Livestock Feed	Nufarm Australia Ltd	

### External Efficacy Reviewer

The applicant provided 9 field efficacy trials in support of the application. The trials were conducted in Victoria, Western Australia and Tasmania during the 2006-2008 seasons. Three trials were conducted on wheat (Millewa and H45), and six trials were conducted on barley (Yagan, Franklin, Gairdner, Mundah and Baudin). All trials used Randomised Complete Block design, with 3-4 replicates and untreated controls. Suitably qualified personnel carried out the trial work in a scientifically rigorous manner. The formulation used is consistent with the currently registered Jockey product and rates used are consistent with those proposed for the label variation. The trials also compared Jockey to accepted industry standard fungicides flutriafol, epoxiconazole, formononetin, triconazole and triadimenol.

All the trials used sufficiently rigorous scientific methodology and suitable statistical analysis. The disease expression present in the control plots provided sufficient challenge to the fungicide to test label claims. Disease control/suppression is assessed as incidence (%/number tillers or leaves infected) and/or severity (% leaf area damaged). Assessments were completed three and seven times between 11 and 211 days after sowing (DAS).

The variation to include a lower seed treatment rate of 3.0L/tonne Jockey for control of stripe rust up to the flag leaf emergence stage in wheat is supported with consistent and significant stripe rust control demonstrated with Jockey at 3.0L/tonne at 82, 114 and 126 DAS which is beyond the 'up to flag leaf' stage claimed on the label. No significant differences were evident between the two rates of Jockey. The new claim for suppression of glume blotch in wheat is supported as Jockey applied to seed at 4.5L/tonne gave consistent suppression of glume blotch up to the head emergence stage. The four trials on barley to

control barley leaf scald showed 88-100% control at growth stages up to early dough with the 3.0L/tonne rate. The three trials on barley to control powdery mildew demonstrated 48-79% control at growth stages up to and past flag leaf with the 4.5L/tonne rate. The two trials on barley to control net form net blotch demonstrated suppression with 48-57% control at up to early milk stage with the 4.5L/tonne rate. Jockey demonstrated no adverse effects on crop emergence, no phytotoxicity symptoms and no negative effect on yield. Most trials showed a positive effect on yield.

Therefore, the data and argument presented support the proposal to vary the label of Jockey to add suppression of glume blotch (*Stagonospora nodorum*) and reduce the rate of Jockey (from 4.5L/tonne to 3.0L/tonne of seed) for the early season (up to flag leaf) control of stripe rust (*Puccinia striiformis* f. sp. *tritici*) in wheat and add the suppression of net form net blotch (*Pyrenophora teres* f. sp. *teres*) and the early season control of barley leaf scald (*Rhynchosporium secalis*) and powdery mildew (*Blumeria graminis* f. sp. *hordei*) in barley. The efficacy assessor recommends that the proposed label variation be accepted.

### Data relied on to provide the advice

Data No	Data Source*	Author(s)	Title	Date	Data Type	Data Sub-type	Authorising Party	Inherited Application No.
32532	S	David Kohler	Evaluation of seed and in-furrow fertiliser treatments for control of leaf scald ( <i>Rhynchosporium secalis</i> ) and powdery mildew ( <i>Blumeria graminis</i> f.sp. <i>hordei</i> ) in barley cv. Gairdner, Forth, Tasmania, 2007-08	28 May 2008	Efficacy and Safety	Efficacy	Nufarm Australia Ltd	
32533	S	Mark W Sumner	Comparison of amended fertiliser treatments Intake 250 SC and Product A with seed treatments QLD 08011 335 FS, Jockey 167 FS, Veteran 025 FS, PHC Myconate 350 FS and PHC Myconate plus Veteran for the control of scald ( <i>Rhynchosporium secalis</i> ) and powdery mildew ( <i>Blumeria graminis</i> f.sp. <i>hordei</i> ) in barley cv. Mundah, Toodyay, Western Australia, 2008	29 June 2009	Efficacy and Safety	Efficacy	Nufarm Australia Ltd	
32528	S	Mark W Sumner	Comparison of Real 200 LS with Jockey 167 FS and Baytan C 150 FS seed treatments and Product A and Intake 250 SC fertiliser treatments for the control of barley scald ( <i>Rhynchosporium secalis</i> ) and net-type net blotch ( <i>Pyrenophora teres</i> f. sp. <i>teres</i> ) in barley cv. Yagan, Toodyay, Western Australia, 2006	4 April 2007	Efficacy and Safety	Efficacy	Nufarm Australia Ltd	
32534	S	Mark W Sumner	Comparison of amended fertiliser treatments Intake 250 SC and Product A with seed treatments QLD 08011 335 FS, Jockey 167 FS,	29 June 2009	Efficacy and Safety	Efficacy	Nufarm Australia Ltd	

			Veteran 025 FS, PHC Myconate 350 FS and PHC Myconate plus Veteran for the control of powdery mildew ( <i>Blumeria graminis</i> f.sp. <i>hordei</i> ) in barley cv. Baudin, Toodyay, Western Australia, 2008					
32527	S	Mark W Sumner	Comparison of Real 200 LS with Jockey 167 FS and Baytan C 150 FS seed treatments and Intake 250 SC and Product A fertiliser treatments for the control of glume blotch ( <i>Stagonospora nodorum</i> ) in wheat cv. Millewa	4 April 2007	Efficacy and Safety	Efficacy	Nufarm Australia Ltd	
32529	S	Phillip Frost and David Kohler	Evaluation of Real 200C LS as a seed treatment for control of net blotch ( <i>Pyrenophora teres</i> ) and barley leaf scald ( <i>Rhynchosporium secalis</i> ) in barley cv. Franklin, Forth, Tasmania, 2006-2007	20 April 2007	Efficacy and Safety	Efficacy	Nufarm Australia Ltd	
32531	S	Mark W Sumner	Comparison of amended fertiliser treatments Intake 250 SC, Product A and Opus 125 SC with seed treatment Jockey 167 FS for the control of net form net blotch ( <i>Pyrenophora teres</i> f.sp. <i>teres</i> ) and scald ( <i>Rhynchosporium secalis</i> ) in barley cv. Yagan, Toodyay, Western Australia, 2007	25 January 2008	Efficacy and Safety	Efficacy	Nufarm Australia Ltd	
32535	S	Greg Barnes	Comparison of Product A with Intake In-Furrow 250 SC on fertiliser to seed treatments of QLD08011 134 FS, Jockey 167 FS and PHC Myconate 350 SC for the control of stripe rust ( <i>Puccinia striiformis</i> ) in wheat c.v. H45, Murchison, Victoria 2008	19 March 2009	Efficacy and Safety	Efficacy	Nufarm Australia Ltd	

\* S = Data submitted with the application

I = Data inherited (that is, referenced) from another application