November 2015

SeedSense

WELCOME TO HANNAFORD'S NOVEMBER 2015 EDITION

As harvesters move into crops across the country, your local Hannaford operator is making final preparations to assist growers with any issues that may negatively affect the harvested crop. From tidying up the sample to meet the required delivery standards, to preparing next season's retained seed. The current season has provided growers with many and varied challenges throughout, but thankfully it appears most regions will still manage to achieve an average result. Further information on the main crop diseases that have affected growers are provided within; along with recommendations to assist manage future outbreaks. Also included are articles detailing Hannaford's continued support of local communities through FRRR, along with the launch of our 90 Year commemorative 'Bag to Bulk' themed calendar available from your local franchisee. We trust you find the information within beneficial and thank you for your ongoing patronage.

Kind Regards,

Brett Heath
Commercial Manager

LOOSE SMUT IN BARLEY AN INCREASING ISSUE

Loose smut is found in all barley growing areas, but is more common in areas of high humidity and rainfall (the disease is especially prevalent in Western Australia). Infection levels in susceptible varieties have ranged from 0-25%, resulting in corresponding yield losses.

With the increased area of barley varieties that are more susceptible to loose smut (*Ustilago tritici)*, such as Hindmarsh, La Trobe and Stirling in Western Australia; the presence of loose smut has become more endemic and is an increasing issue in barley crops. **Various agronomists throughout Australia have commented that loose smut has been seen at higher levels in crops in 2015 (at levels of 2–4%).**

Moist conditions during flowering, with temperatures of 16-22°C favour infection. This has been typical of the conditions during the spring of 2015 making the prevalence of loose smut higher this season.

To **effectively manage loose smut** it is essential to do the following:

1. **Selection of varieties** that are more susceptible to loose smut should be avoided.
2. **Replacement of seed** also should be considered when there is high levels i.e. 4-5% of loose smut in grain samples as seed treatments will struggle to adequately control the disease from high infection levels in grain. Suspect seed samples should be tested prior to cleaning and treating.
3. **Use a seed treatment** registered for the disease (which is the only means of chemical control), this is particularly important as the disease is carried inside the seed.

Hannaford products such as Rancona® Dimension, Rancona® C, Vitaflo® C, Foliarflo®C, Vitavax® 200FF and Proguard® Ultra are all registered to control loose smut in barley.

IN THIS ISSUE

Hannaford

The Seed Protection Specialists

DISEASE ROUNDUP

WHEAT

All three types of rust (**stem rust, stripe rust and leaf rust**) have been found in wheat throughout most cropping regions in Australia during the 2015/16 cropping season. This highlights the need and importance of crop monitoring and early management strategies. If farmers are not applying in-furrow fungicides for the 2016 crop then consideration should be given to using products such as Quantum® Pro (for stripe & leaf rust) on the wheat and/or the selection of resistant varieties (Check the latest disease ratings for your varieties). Farmers are also advised to ensure that they control volunteers (cereals and host weeds) over summer to remove the green bridge that rusts need to survive from one season to the next.

Stripe Rust Irrigated Wheat (Kerang)

BARLEY

Many barley crops throughout Australia have suffered from **powdery mildew** resulting in yield losses. The increased prevalence of powdery mildew this year is due in part to the following factors:

- Farmers are moving away from seed treatments with activity on powdery mildew to other products
- In regions such as Western Australia there is resistance of powdery mildew to some fungicides
- Seasonal conditions that have been favourable for the development of the disease.

Farmers are urged to properly assess their disease issues prior to selecting a seed treatment to ensure the best possible product is used to cover the disease(s) that will potentially cause the greatest yield loss to the crop in 2016.

CANOLA

In many areas there has been widespread damage of cereal, pulse and canola crops by **aphids**. This has resulted in yield losses to some crops due to either direct feeding damage or by transmition of viruses. Products such as Guardian® and Proguard® Ultra are effective in early protection from aphids.

Some canola crops have been impacted by **blackleg** during the season. Farmers need to reassess the resistance status of canola varieties each year prior to sowing by consulting the CAA 2015 Australian National Blackleg Ratings and management guide fact sheet available at www.australianoilseeds.com

PULSES

In some areas lupin plantings increased this season as has the non-treatment of the seed. This has resulted in a higher than expected level of brown leaf spot, hypocotyl root rot and anthracnose (WA only). Farmers are recommended to sow resistant varieties as well as treating the seed with Thiraflo® at 2l/t for anthracnose and Xlflo® at 1-5l/t for brown leaf spot and hypocotyl root rot.

Farmers growing other pulse crops such as field peas, chickpeas, lentils, vetch and faba beans have seen benefits in managing foliar and root diseases by applying products such as Evershield® at 2l/t. This has been especially evident in lentils, field peas and chickpeas.

INSECT PESTS

Throughout most grain growing regions **stored grain insect pests** are increasingly becoming a problem. In fact, there have been increasing levels

of documented resistance occurring in stored insects to the currently available insecticides. Hannaford franchisees have access to Reldan® Plus in the Eastern States which gives farmers an extra option in managing insect pests of stored grain.

IN-FURROW

Where in-furrow fungicides are used it is recommended that a base seed treatment such as Rancona® C or Vitaflo® C is applied to protect against **smuts and bunt**, as in-furrow products do not effectively control these diseases and can leave the grain subject to rejection at the silo if smuts or bunt are discovered in the sample.

TRACE ELEMENTS

In many areas this year zinc deficiency has become more prevalent and resulting in poorer crops and lower yields. Farmers are reminded that Hannaford has a citric acid based chelated zinc product available – Zincflo® Plus used at 3l/t on cereals. Chelated zinc is more available to the seed than the oxide based products that are regularly used as a seed treatment and has less dust issues, especially when combined with Rancona® Dimension or Rancona® C.

References: PestFax reports from Department of Ag's in SA, Vic, NSW and WA; Seasonal Crops Summaries from Department of Ag's in SA, Vic, NSW and WA; Crop Watch reports from John Lamb Communications

CROWN ROT SOLUTIONS

'Crown rot and Rhizoctonia treatment is difficult, especially if it's not caught early enough,' that has been the long held industry standard belief. That was until Rancona® Dimension entered the Australian cereal seed treatment market in 2014. Rancona® Dimension is an integral disease management tool when used in conjunction with appropriate crop rotations, soil nutrition, soil management and inter row sowing to protect your crops.

Crown rot is a disease caused by a soil-borne fungus which can survive in the soil indefinitely. A serious disease in Australia, crown rot causes close to $100 million damage to cereals each year (GRDC 2014),

Crown rot symptoms are often seen after flowering with the appearance of white heads scattered

(above) White heads scattered throughout a wheat crop, a classic symptom of crown rot.

throughout the crop. Usually single tillers of the plant are effected, but in severe cases whole plants may be affected. Also, stem browning at the base of the plant is a symptomatic in severe cases. Conditions favourable to crown rot are wet conditions earlier in the season followed by a dry spring, where the pathogen grows quickly in plant tissue (Wallwork, 2000). Yield losses associated with crown rot can be up to 50% in some cases.

As with crown rot, Rhizoctonia root rot (*Rhizoctonia solani)* has a disastrous effect on Australian cereals responsible for, in excess of, $59 million in crop losses in wheat and barley per annum (Murray and Brennan 2009). Symptoms of the disease include that of distinct bare patches in crops from an early stage of growth. Plants within these patches remain stunted until maturity with shorter root systems with brown 'spear tips' on ends of roots or even die. (Wallwork, 2000)

We consider Rancona® Dimension to be the smart choice in seed treatment. With its excellent disease spectrum and unique formulation, it is the only product registered for crown rot in Australia, why risk your crops with any other product.

(below) Honey-brown discolouration on stem bases, a symptom of crown rot.

HANNAFORD. SUPPORTING SMALL RURAL COMMUNITIES

Hannaford is pleased to announce it is a proud supporter of the Foundation for Rural and Regional Renewal (FRRR).

FRRR helps rural and regional communities address issues that make a difference to the sustainability of rural, regional and remote communities, ranging from early childhood to aged care, creating social capital and creating local infrastructure.

In June 2015, FRRR and sponsors including Hannaford collectively funded 111 projects for communities across Australia, including the 'Water for the Future' project in Cummins.

Cummins, a South Australian town of 700, operates a community-owned caravan park that had poor access to water - something that is taken for granted in the cities. Thanks to Hannaford's involvement with FRRR, the Cummins and District Enterprise Committee was able to construct a water pipeline, complete with solar pump, to provide water to the park. The group is now raising funds to extend this water access project even further.

It's great to know that every time you use Hannaford, you'll be helping support important projects like that and communities just like yours.

To learn more about FRRR and how they help local communities, visit www.frrr.org.au.

FRRR
Foundation for Rural & Regional Renewal

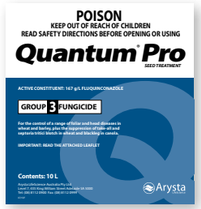
Australia's Specialist Range of Seed Treatments

RANCONA® DIMENSION
The drum that does it all

RANCONA® C
The next generation in seed treatment

VITAFLO® C
Effective disease control and strong germination

FOLIARFLO® C
Dual protection for seed and leaves



QUANTUM® PRO
All round protection for seed, leaves and roots

ZINCFLO® PLUS
Gets your crop off to a great start

XLFLO®
Get your lupins covered early

THIRAFLO®
Unbeatable protection for lupins and chickpeas

EVERSHIELD®
Effective control of seed borne diseases

GUARDIAN®
Yield benefits through aphid control

PROGUARD® ULTRA
Preventative for smuts, bunts and aphids

Seed Treatment	Active(s)	Covered Smut/ Bunt	Flag Smut	Loose Smut	Stripe Rust	Leaf Rust	Leaf Scald	Septoria Leaf Blotch	Powdery Mildew	Take-all	Anthracnose	Ascochyta	Botrytis	Brown Leaf Spot	Pythium Root Rot	Rhizoctonia Root Rot	Fusarium Crown Rot	Blackleg	Stored Grain Insect Pests	Blue Oat Mite	Red-Legged Earth Mite	Aphids	Trace Element
Rancona Dimension	Ipconazole Metalaxyl	Wheat, Barley, Oats	Wheat[1,2]	Wheat, Barley, Oats											Wheat, Barley	Wheat*, Barley*	Wheat*, Barley*						
Rancona C	Ipconazole Cypermethrin	Wheat, Barley, Oats	Wheat[1,2]	Wheat, Barley, Oats															Wheat, Barley, Oats				
Vitaflo C	Carboxin Cypermethrin	Wheat, Barley, Oats	Wheat[1,2], Triticale[2]	Wheat, Barley, Oats, Triticale															Wheat, Barley, Oats, Triticale				
Foliarflo C	Triadimenol Cypermethrin	Wheat, Barley, Oats	Wheat[1,2]	Wheat, Barley, Oats	Wheat*		Barley*	Wheat*	Barley*										Wheat, Barley, Oats				
Quantum Pro	Fluquinconazole	Wheat, Barley[3]	Wheat[1,2]	Wheat, Barley[3]	Wheat**	Wheat***	Barley*[3]	Wheat*	Barley*	Wheat*								Canola*					
Zincflo Plus	Zinc (Chelated) Sulphur & Nitrogen																						Cereals
Xlflo	Ipriodione													Lupins		Lupin*							
Thiraflo	Thiram										Lupins[2]	Chickpeas[2]	Chickpeas[2]										
Evershield	Thiram Thiabendozle											Chickpeas, Lentils, Field peas	Chickpeas										
Guardian	Imidacloprid																		Cereals	Canola, Lupins	Canola, Lupins	Cereals, Canola	
Proguard Ultra	Tebuconazole Imidacloprid	Wheat, Barley, Oats	Wheat[1,2]	Wheat, Barley, Oats															Cereals			Cereals	
Cosmos®	Fipronil																				Canola		

* Suppression
**Stripe rust is controlled for up to 6 weeks after sowing, with good suppression thereafter
***Leaf rust is controlled for up to 4 weeks after sowing, with good suppression thereafter

[1] Soil borne
[2] Seed borne
[3] Refer to label for additional registrations

®Vitaflo, Rancona, Quantum, Proguard, Guardian, Xlflo, Thiraflo, & Evershield are all registered trademarks of:
– Arysta LifeScience Australia Pty Ltd
– MacDermid Agricultural Solutions Australia Pty Ltd

®Cosmos is a registered trademark of BASF
ALWAYS REFER TO REGISTERED LABEL FOR FULL INSTRUCTION.

IMPORTANCE OF NEMATODES IN CROPPING SYSTEMS

Nematodes are microscopic worm like pathogens that extract nutrients and water from plants causing damage and yield loss. The most common nematodes that affect crops are the Cereal Cyst Nematode (CCN), Oat Stem Nematode (OSN) and the Root Lesion Nematodes (RLN).

Generally the CCN and OSN forms are adequately controlled through resistant and/or tolerant varieties as well as crop rotations.

The RLN are more difficult to manage due to their wide host range and can multiply on cereals, oilseeds, pulses and pastures as well as on broadleaf and grass weeds. The other major issue with identifying damage by RLN is that the **symptoms can be mistaken for Rhizoctonia damage**. Additionally RLN can interact with both Rhizoctonia and crown rot making these diseases worse than they would otherwise be if RLN was not present.

INTERATIONS BETWEEN NEMATODES AND *RHIZOCTONIA SOLANI*

There is a known interaction between nematodes (especially the RLN) and *Rhizoctonia solani*. Some points to keep in mind about this interaction are:

- The penetration of root tissues by RLN results in lesions that favour greater colonisation by root-rotting fungi and by saprophytic bacteria, fungi, and nonparasitic nematodes, this includes *Rhizoctonia solani*.
- Nematodes can lower the resistance of plants to other pathogens, especially if the nematode infection precedes the other pathogen infection (this has been shown to be the case with *Rhizoctonia solani*).
- The wounding of root tissue by nematodes predisposes them to fungal infection and increases disease severity.

Once a nematode infected plant becomes secondarily infected with *Rhizoctonia solani* that plant will have a higher population of nematodes and lesions than if the infection with *Rhizoctonia solani* infection did not occur. **Research is showing that a similar interaction between crown rot and RLN also exists resulting in great damage and yield loss to the affect cereal crop.**

Therefore farmers are urged to check their crops for the presence of nematodes (esp. RLN) this season to correctly diagnose the causes for any root damage. Going forward, this will allow for the appropriate strategies to be put in place to manage any issues. This is as simple as digging up the plants and inspecting the roots for symptoms or conducting a Predicta B soil test prior to sowing the 2016 crop.

IN CROP SYMPTOMS

The symptoms of **Rhizoctonia** are as follows:

- **Characteristic "spear tips" on roots.**
- Distinct bare patches occur when seminal roots attacked within 3–5 weeks of sowing, with a distinct edge between diseased and healthy plants.
- Patches of uneven growth occur from mid-winter when seminal roots establish, but crown roots affected.
- Affected plants are stunted with stiff, rolled leaves and are sometimes darker green than healthy plants.

The symptoms of **Root Lesion Nematodes** are as follows:

- **No "spear tips" as with Rhizoctonia.**
- Reduction in length and number of lateral root branches.
- Brown discoloured lesions on roots or entire root may be brown.
- Roots appear thin and poorly branched.
- Patches of ill thrift, reduced biomass and yellowing.
- Size of affected areas may increase during and between seasons.
- Uniform till thrift across paddock, to slight uneven growth may be observed once RLN is well established.
- Reduced tillering and wilting particularly with a dry finish.
- Roots may appear withered with crown roots often less affected than primary roots.
- Roots can assume a 'noodle-like' root thickening appearance.

ROOT LESION NEMATODE MANAGEMENT

Reducing RLN numbers should lead to increased yields in subsequent crops and can be achieved through implementing the following strategies:

- Grow resistant and tolerant varieties – Check current crop variety guides.
  - Resistant varieties will lower numbers whereas tolerant varieties will yield higher in the presence of RLN.
- Where high levels of RLN exist resistant and tolerant varieties will need to be grown for at least 2 years to lower levels in the soil.
- Conduct a Predicta B soil test to determine current levels.
  - Aim to maintain RLN numbers below threshold levels for your area and crop.
- Avoid intensive cropping of susceptible crops such as wheat, durum and chickpeas.
- Maintain good control of weeds in crop and between crops.
  - Esp. during late summer/early autumn and in break crops.
- Ensure good nutrition of crops as healthier plants recover more readily from infestation.
  - Also ensure soil pH is maintained in the optimum range to ensure maximum availability of plant nutrients in the soil.
- Ensure adequate hygiene between paddocks as RLN can be transported of farm machinery.
  - RLN can also be transported by water or wind erosion.
- Sow early where possible to "get ahead" and maximise yield.
- The following crops are less susceptible to RLN: narrow-leafed lupin, faba bean, field pea and triticale and may be suitable as a break crop.
- In-crop observe crop roots to monitor development of symptoms.

For further information on RLN please refer to the following GRDC Grower Notes publications:

WA: Tips and Tactics – ROOT-LESION NEMATODES WESTERN REGION

SA & Vic: Tips and Tactics – ROOT-LESION NEMATODES SOUTHERN REGION

NSW & QLD: Tips and Tactics – ROOT-LESION NEMATODES NORTHERN REGION

www.agric.wa.gov.au/mycrop/diagnosing-rhizoctonia-root-rot-cereals

www.agric.wa.gov.au/mycrop/diagnosing-root-lesion-nematode-cereals

INTRODUCING TERRY & KELLY JACKSON, THE FRESH FACES OF HANNAFORD IN THE FLEURIEU PENINSULA & KANGAROO ISLAND REGION

Terry Jackson has a long history with farming, trucking and managing his own business, so is no stranger to organisation and hard work.

Terry grew up on a farm near Murray Bridge and, after leaving school, relocated to Meningie where he completed a Certificate in Farm Practice (Dairying). He met Kelly, a farmer's daughter living in Strathalbyn, and moved into the trucking industry where he became well versed in a large range of driving including general freight, feed tankers and milk tankers.

When the opportunity arose for Terry and Kelly to be their own boss, they jumped at the chance and bought a small business in the building industry. Through hard work and determination Terry and Kelly grew the business considerably (it now runs several teams), and gained an impeccable industry reputation for punctuality and an eye for detail along the way.

Their success enabled them to buy a small farming property at Nurragi, leading Terry back to his farming roots. "The Hannaford franchise opportunity was ideal, the perfect solution. We still run our own business and I get to stay close to the family."

Terry will handle all infield operations with the Hannaford seed grading machinery, while his wife Kelly will provide strong backup through office and administration support. The two are excited about their new venture, "Hannaford has a great reputation with Australian farmers dating back 90 years. They provided us with all the training, product range information and backup support anyone could ask for. We're confident we know we can offer a professional and reliable seed grading and treating service now. We're looking forward to building a strong association with our clients", Terry said.

Terry and Kelly look forward to assisting you with your seed grading and seed treatment needs in the future. If you would like to catch up with Terry to discuss Hannaford products or services for the upcoming season, please contact him on the below details to make an appointment.

Terry Jackson
Mobile 0403 298 076
Email Terry.HannafordFP@outlook.com
PO Box 99, Strathalbyn SA 5255

90 YEARS CELEBRATION

Alf Hannaford & Co Ltd was founded in 1925. In recognition of 90 Years of Hannaford's proud involvement in Australian agriculture we have developed a limited edition 'Bag to Bulk' themed calendar which contains historical images that trace Hannaford's evolving on-farm services, from inception to the present day. If you have any similar historical images that may be suitable for future editions, we would be delighted if you could contact us on 1800 078 007. Make sure you contact your local Hannaford franchisee to obtain your copy today.

Hannaford

Where the locals go

SOUTHERN NSW & VICTORIA

Berrigan, Finley, Deniliquin, Jerilderie, Corowa & Tocumwal
Peter & Jan Hill
0428 852 323

Wagga Wagga, Junee, Coolamon, Lockhart, Holbrook & Tarcutta
Barry & Joanne Kohlhagen
0459 202 079

Warracknabeal, Minyip, Birchip, Hopetoun, Sea Lake & Swan Hill
Brian & Charmaine Wilson
0427 681 034

Charlton, Donald, St Arnaud, Quambatook, Boort & Echuca
Bernie & Wendy Laffin
0417 567 602

Nhill, Rainbow, Jeparit & NW Dimboola
Rob Lynch
0428 911 387

Horsham, Kaniva & SE Dimboola
Wayne and Lindy George
0427 902 381

Ballarat, Ararat, Lismore & Clunes
Andrew & Janelle Cheesman
0437 688 776

Goroke, Frances, Edenhope & Casterton
David & Karen Harris
0428 857 725

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Streaky Bay, Ceduna, Port Kenny & Poochera
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Lock, Tooligie, Wudinna & Kimba
Hannaford Eyre Peninsula Pty Ltd
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Cummins, Kapinnie, Karkoo & Ungarra
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Port Lincoln, Tumby Bay, Cleve & Cowell
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Gary Hamdorf – *Hannaford Agronomist*
0427 022 355

Maitland, Ardrossan, Warooka & Arthurton Sth
Graham & Carole Derrington
0419 821 654

Snowtown, Blyth, Nantawarra & Avon
Mick & Denise Coleman
0427 642 142

Auburn, Clare, Manoora & Burra
Garry & Tania Gaerth
0409 280 318

Barossa, Riverland, Eudunda & Tarlee
John & Margaret Schutz
0417 812 760

Strathalbyn, Fleurieu Peninsula & Kangaroo Island
Terry & Kelly Jackson
0403 298 076

Naracoorte, Bordertown, Keith & Tintinara
David & Karen Harris
0428 857 725

WESTERN AUSTRALIA

Geraldton, Binnu, Mullewa & Mingenew
Gary Hamdorf – Hannaford Agronomist
0427 022 355

Moora, Dandaragan, Coorow & New Norcia
Darren Rutley
0400 510 154

Dowerin, Trayning, Bencubbin & Dalwallinu
Brent & Gloria Melville
0428 811 585

Cunderdin, Northam, York, Tammin & Toodyay
Ross & Ellen Parrick
0429 064 119

Pingelly, Beverley, Brookton, Quairading & Kulin
Phillip & Katrina Crute
0427 250 877

Cuballing, Wandering, Williams & Boddington
Trevor & Kirstie Clark
0418 563 926

Narrogin, Wickepin, Wagin & Kukerin
Charles & Lorette Naudé
0487 404 757

Boyup Brook, Darkan & Kojonup
Trevor & Kirstie Clark
0418 563 926

Katanning, Woodanilling, East Kojonup & Broomehill
Derek Batchelor
0428 241 306

Cranbrook, Tambellup & South Stirlings
Neville & Anne Parsons
0429 904 653

Jerramungup, Gairdner, Borden & Pingrup
Mark Weedon
0428 351 176

Ravensthorpe, Lake King & Newdegate
Malcolm Smith
0417 981 581

Munglinup, Hopetoun & Cascades
Kingsley & Kym Walker
0487 194 243

Salmon Gums & Grass Patch
Kym & Kingsley Walker
0427 477 493

Esperance & Condingup
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0412 882 613

Southern Cross, Hyden, Kellerberrin & Mukinbudin
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FREE* Seed Germination Test

**For Hannaford customers only.*

Proudly supporting local communities via FRRR
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Rancona® DIMENSION® SEED TREATMENT

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The Seed Protection Specialists