

**PEARSONS**

Pearson's Grain and Transport  
Swan Hill Stockfeeds

## June 2017 Agronomy News

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**Rainfall Report – here are the BOM rain gauge data for the calendar year (mm)**

	Swan Hill	Ultima	Cocamba	Balranald	Lalbert
Jan	12.6	15	16	12.2	22
Feb	19.8	19.1	13.8	0.8	34
Mar	33.8	27.1	38	30	14.6
Apr	67.8	64	88	60.6	87.8
May	30.2	48.1	23	29.8	No data
<b>Total</b>	<b>164.2</b>	<b>173.3</b>	<b>178.8</b>	<b>133.4</b>	

**Yield potential: Based on this years' rainfall, and assuming 70mm evaporation and a sandy loam soil, our theoretical cereal grain yield is 1500kg/ha with no further rain.**

### Nitrogen- our soils are short.

We all know that predicting spring rainfall is practically impossible, but it is reasonable to work with knowns.

We know that we have 1.5t/ha wheat yield potential right now, and if we were to score 75mm of rain in the next 4 months, 3t/ha is on the cards.

Given 30 kg/ha N carry-in, and 25kg seasonal mineralisation, we still need 65kg nitrogen (141kg urea) to meet this demand. For barley it is 35kg nitrogen (76kg urea).

Fortunately granular urea is trading at 10 year lows – so our unit price for N is \$0.83/kg. The wheat equation is 1.6 tonne response for \$54 fertiliser expenditure

### Liquid N

We understand the nitrogen shortfall is due to high removal in 2016, and a dry summer following.

Liquid nitrogen can promote tillering if there is subsoil moisture, but no reliable topdressing rains to work with.

Indicator pricing:

**UAN** 42%N w/v \$1.90/kg N

**Red Ant** 36%N. 2.8% S w/v \$1.81/kg N

**Hot tip:** Apply at 4-5 leaf stage to promote tillering

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## Frosts- how do we respond?

Frost events cause a short term stress on a plant because the cell is basically a liquid filled membrane in which the chloroplasts (photosynthetic equipment) and genetic material float in. The liquid becomes ice, which bursts the cell membrane and the cell contents leak out. These cells are replaced with time- we see that commonly as "Footy socks" stripes on the coleoptile of a cereal plant. The yellow band is the damaged cells from a frost, and the green bands are the new growth from the next day. Eventually the yellow bands recover and become green as the damaged cells are replaced.

It is important to know that frosts can impact on the behaviour of a herbicide application- it can cause injury to the crop, or lower the weed control performance, or do both!

Some herbicides have caused some spectacular effects on crops when there has been a frost prior to or following application; metsulfuron, tralkoxydim, terbutryne, dicamba in cereals, and diflufenican (DFF) in lentils and field peas are prime examples.

DFF works by blocking the production of one of the key pigments for photosynthesis. When there is a frost DFF can be quite harsh on the youngest leaves of lentils because the crop cannot metabolise the DFF and there is a double cell damage effect.

The same applies when rolling pulses- physical bruising along with frost induced cell damage is an additive stress. So talk to us as SHSF about "set aside" periods for spraying ;and rolling activities.

One very important note is that **clethodim** weed control performance drops off noticeably if applied up to 3 days *before or after* a severe frost. It is a slow moving molecule in the plant and is therefore prone to "lock up".

## Pest Watch

**Red legged earth mite:** The dry summer has meant very high survival rates of RLEM eggs, which are now progressively hatching with each cold event. Check out this emerging field pea plant suffering high mite pressure!

**Bryobia mites** are a related species and can do significant damage to both cereals and canola; higher rates of omethoate are needed to control bryobia mite compared to RLEM

**Lucerne flea:** probably the most damaging pest to canola, especially following a 2016 pulse or legume manure crop. Very easy to control, but needs to be early to prevent laying down of winter eggs.

**Cowpea aphid and Bluegreen aphid** will be the big threats to Lentils. These guys bred up on milk thistles in last years' pulses

Talk to us at SHSF about omethoate and dimethoate options!

**Mice** appear to be burrowing deeper and likely to be stockpiling grain. Monitoring and repeat baiting may be required. **Sure Fire** are under demand pressure to supply, but we do have orders in place.



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### Imazapic – getting best results

We are trending to not using imazapyr as part of the IMI use in Clearfield cereals- imazapyr has a long residual which has caused troubles in many a year. Imazapyr does improve ryegrass and wild radish control, but other than that, reducing carry-over residues often means we delete it.

Hot tips for maximising Imazapic efficacy: 1. Use AMS. Imazapic is a phloem mobile herbicide like glyphosate, so AMS really works. 2. Use a surfactant- Hasten is appropriate imazapic, or mixes with LVE and clopyralid. 3. Use mixes to reduce Group B resistance in broadleaved weeds. Legacy MA is fantastic on wild radish and any larger turnips (but use a wetter only, not Hasten). IMIs can suffer from less than ideal weed control in cold conditions, so mix partners help here as well.



### Rolling pulses

Rolling pulse crops to improve harvestability is very much recommended. Lentils are a must for rolling as they will set pods as close as 2 inches from the soil surface.

The timing of rolling is more flexible in the direct drill knife point system as the growing point is protected within the furrow. However rolling on sandy soils may be best delayed past the initial emergence stage to the 2 node stage as sands can compress and break the coleoptile. If you are reliant on a hire or syndicate machine- have regular chats to get your timing right.

Post sowing, pre-emergent passes are appropriate unless the paddock has sealing soils and is very wet, or a bare sandy soil prone to erosion

Post emergent rollings can still bruise pulse leaves- it is still best to ensure broadleaved herbicide applications are 10 days either side of rolling.

The latest rolling timing for lentils is at the 7 node stage (or 5 true leaf). After this the plant is taller and has become more rigid, so physical damage is more likely





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## Have you applied zinc?

Zinc supply is now widely recognized as a standard practice, whether as seed amendment, solid fertiliser form or foliar spray.

**Zintrac** (Formerly *Twin Zinc*) is the most popular foliar form of zinc- 1. It is a 70% W/V concentration, so very small volumes are required (250-350mL/ha, \$2.70-\$3.80/ha)), and 2. Zintrac has more compatibilities with more herbicides. It is one of the very few products compatible with amine formulations of MCPA and 2,4-D. Zintrac is an ideal mix partner with Brodal Options in lentils, and Brodal Options + MCPA 750 in field peas.

### **Stoller WL Zinc Chelate**

WL Zinc Chelate (11% W/V) is a fantastic seed dressing as it does not adversely affect seed flow characteristics. However, it is a great foliar early post emergent product as the spray that hits the ground rather than the foliage is protected from tie-up. Normally applied at 1.0-1.6L/ha (\$3.86-\$6.00/ha)



Prevent this: the pale spots on a cereal leaf are a chronic zinc deficiency. Mild deficiencies present as slightly pale or yellow streaks between the veins.

## Pulse fungicides

We have standard fungicide programmes for lentils, chickpeas and field peas according to variety. Check with us, and also secure the bare minimum requirements- Australia is headed for another big pulse year.

For example, it is cheap and effective to combine a **mancozeb** cover spray for asochyta blight with the second grass spray in **Hurricane XT** lentils, and prioritise a carbendazim prior to canopy closure, and a chlorothalonil at the commencement of podding.

Smithy has locked away good volumes of the main pulse fungicides, but demand could be very high again this year.



**Hot tip:** Increase water rates to 100L/ha for late fungicides. Don't forget the wetter!

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### **(Spot form) Net blotch – barley**

There are signs of net blotch in **Spartacus CL** especially, as well as **LaTrobe** and **Scope CL**. The spores have landed from old nearby 2016 barley stubbles.

SFNB is one of the “latent” diseases, so visual signs today mean problems in 1-2 weeks’ time.

A propiconazole application at EPE may be warranted, but the best value for money SFNB programme is two prop applications timed at Z30 and flag leaf -1. This has produced the same yields as label rates of Prosaro at the same timings (2016 Rupanyup trial). The two applications of prop is also very likely to give the same yield as two applications of Amistar XTRA in the sub 5t/ha yield range. Above these yields it is likely the additional duration of the azoxystrobin is helpful.



Grant Holloway's trial in 2016 showed a 15% yield loss in Scope CL unsprayed  
LaTrobe lost 20% yield

### **Chemical industry update**

No news arising from the *Syngenta- ChemChina* merger, nor the **Dow AgroSciences-Pioneer** merger. Not surprising as it takes time to take stock of the assets and develop a new product direction policy. However, Syngenta in particular will remain committed to being a research company.

Dow Agrosciences have remodelled **Crusader** to extend the broadleaved weed spectrum. They have done this by adding one of the components out of Paradigm. The new product, **Rexad**, retains the excellent brome grass control of Crusader, but with additional control of bifora, poppy, deadnettle and marshmallow. The cost rises a little to \$36/ha, but pyroxsulam always worked well on large brome.

Prosulfocarb cereal ryegrass pre-emergent is now marketed by both ADAMA (**Countdown**) and Syngenta (**Arcade**). Prosulfocarb is one of the key ingredients of Boxer Gold. We will be assessing this alternative to trifluralin very shortly in local paddocks.

**Triathlon** is the value for money 3 mode of action wild radish, wide spectrum EPE product in cereals. Great results even on DFF resistant populations of radish- see us in store.

**FMC** have a new canola pre-emergent (Group K & Q) called **Altiplano** ready for release in 2018. They hope to have a new cereal pre-emergent on the market in 2019 too!

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