



Agronomy News January 2020

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2019: The year that was:

2019 was down on GSR, but the little rain lick in July was very rewarding (especially for those that topdressed barley early). August is the new September, and it seemed a week of frosts was followed by a week of drying winds.

The outcome was pretty good on sandy soils, with up to 3.0t/ha achieved with well-fed Spartacus.

Where did the yields come from? The December 2018 rain contributed greatly, and even modest stubbles helped retain the moisture after diligent summer weed control.

The value of newer crop genetics can't be overlooked. No better example was shown in the Kyalite wheat NVT where Yitpi yielded 92% of the site average, and Vixen was 110%.

The Ultima barley NVT was obviously a solid yielding site, and Spartacus CL yielded 103% of the site average, Scope CL 98% and Schooner as a reference point, 93%

In this issue we will begin thinking about crop inputs for 2020, and forward thinking for the new varieties to bulk up for 2021.

It's high time to cut the Kord!

The latest NVT trial data is in, and it confirms the strong yield advantage of **Razor CL Plus versus Kord CL Plus**.

Razor (AGT Seeds) has outyielded Kord over all the Mallee NVT sites, including high and low yielding - this is not all that surprising due to the increased sensitivity to frost in Kord, and being a very leafy variety that uses moisture aggressively.

Razor appears to have strong mainstem head dominance, and the ability to fill 3 wide in a dry year (much like Scepter).

Swan Hill Stockfeeds are taking orders for **Razor CL Plus**, and the new long season conventional (Cutlass maturity) wheat **Rockstar**

	Kyalite	Hopetoun	Walpeup
Razor Yield	1.81	5.1	2.74
Kord Yield	1.70	4.0	2.23
Razor site %	99	109	111
Kord site %	92	86	91

Whilst Razor CL Plus is classified as ASW quality, based on extra yield it is delivering \$30-150 more than Kord CL Plus over low to average yield ranges

The sprouting rating of Razor is MSS, Kord is SVS



Deep ripping tips

Soil compaction on sandy soil types has been overlooked- the lack of yields on hills has been partly lack of nutrition, and partly due to compaction at around 30cm limiting crop root development.

The presence of soaks is one clue that water is not being fully used on the hills due to lack of crop growth. Digging pits will confirm lack of root depth.

Rip slow, 7-8 km/hr and try to rip as deep as possible 400mm +

Rip at a 15-35 degree or more angle to the intended direction of sowing.

Be prepared to experiment- ripping dry can be done, but there is a higher fuel requirement and more clods. Try ripping and then rolling a small area

Roll the paddock after ripping to level the surface for sowing, and to close off air movement in the trench.



Left is a ripped area with better crop growth on the hill, and no soak on the flat.

Some grain commodity market insights:

Wheat: US Wheat Associates comments (Dec 20)- abnormal dryness and moderate drought in major Hard Red Winter Wheat (HRW) areas of north central Texas, western Oklahoma, Kansas and Colorado. (The HRW market has a high degree of commonality with our own wheat product). Problems in UK; 60% of winter wheat area only was planted due to wet conditions. Ukrainian winter wheat plantings down 10%. Drought in Argentina- less than 1% of the wheat crop in good condition.

Coarse grains USDA are predicting an extra 4 MT imported by the Middle East and North Africa next year, and an extra 2MT in South-East Asia (despite incursions of African Swine Fever). China has 62% of the world coarse grain stocks, and imports the equivalent of 5% of its own internal production.

Pulse market

The Indian rabi (winter) crop is in the ground, with a higher area of wheat taking up some of the normal chickpea and lentil area. Kharif (summer) pulse crop has just been harvested after storm damage, and estimates are 8.23 MT versus the previous three years' average of 9.16.

Canada produced a good harvest of around 3.0 Mt of lentils, 60% of which are red lentils.

Indian consumption for pulses is growing, with a population of 1.3 billion and a net annual birth rate of 38 million.

Support for **Slasher** chickpeas: Pakistan and India are constant and reliable consumers for desi chickpeas. We are seeing this with healthy bids (see opposite)

Commodity	Indicator pricing del. Wimmera	Trend
Small red lentil	620	up
Medium red	620	up
Large red	620	up
Desi	800	stable
Kabuli	560	stable
Faba	610	?

PEARSONS

Pearson's Grain and Transport
Swan Hill Stockfeeds

Consider herbicide residues

It has been such a dry spring and summer, it is a foregone conclusion that **IMI** herbicides will not have broken down enough to allow planting conventional legumes and cereals. We need 200mm rain for cereals, and around 150mm for legumes.

IMI wheat, IMI barley: rotate with Hurricane, Hallmark and Highland lentils/ IMI wheat/ IMI barley/ Sultan SU medic/ Clearfield canola.

Some example plant-back periods for brome grass sprays in conventional wheat:

	Rainfall	Crop	Period (months)
Atlantis	250mm	Peas	9
		Lupins	9
		Vetch	9
		Barley	9
		Lentils	11
Rexade	100mm	Peas	8
		Vetch	8
		Lentils	8
		Barley	8 months
	75mm		

Whilst not tested, there is likely to be some useful additional tolerance to Atlantis and Rexade in Spartacus barley over conventional barley.

Fertiliser

MAP, DAP- as mentioned last issue, lower use of AP fertilisers in USA a few months ago due to wet conditions and India having considerable stocks has meant fertiliser exporters had been sitting on inventory. In Aussie dollars MAP has fallen \$200 since January last year, including \$65 since September. Clearly the best buying opportunities were before Christmas, when China was prepared to sell below cost of production. With the Chinese New Year clicking over on January 25, we can reliably predict the discounts are off and more normal trading behaviour beginning. Action point; if you have no or incomplete coverage, lock in AP products as soon as possible as the price will go up

Urea- again, the US consumed less urea due to reduced corn area, and lower opportunities to pre-drill urea. Where the phosphate market has been subject to factory capacity increases, there has been capacity reductions in China due to pollution and efficiency/ profitability concerns. Ignoring lower production capacity, the urea price should remain flat for the next Quarter, and then start a gradual rise as ground for the next Northern Hemisphere summer crop is prepared.

Domestically the MAP/ DAP market is the lowest in 12 to 13 years, despite a fairly weak \$AUD. If you are in a strong cash surplus situation, you have an opportunity to bury a different kind of **FMD** (*fertiliser management deposit*).



Zinc budgeting

Whilst we have built disciplines around supplying zinc to crops destined for grain, we must also consider the zinc removal by hay and straw.

We also need to supply zinc above nutrient removal rates by about double due to slower decomposition of stubbles left standing compared to the old cultivation system

	Zinc removed (grams/hectare)	Example replacement this year
Wheat 2.5t/ha grain	72.5	2020 barley crop; Smartrace Zinc seed dressing (5L/tonne) + Zintrac foliar 200mL/ha = 25g/ha + 140 = 165g/ha
Barley 3.0t/ha grain plus Straw 2.5t/ha	45 + 75 = 120	2020 lentil crop; Smartrace Zinc seed dressing (5L/tonne) + 1.25L/ha Liquid Viagra foliar = 42g/ha + 106g/ha = 148g/ha
Vetch hay 3.0t/ha	87	2020 wheat crop; Smartrace Zinc seed dressing (5L/tonne) + Zintrac foliar 200mL/ha = 165g/ha

Smartrace Zinc is zinc seed treatment that is very easy to apply, and does not greatly affect handling and seeder calibrations.

Having some seed applied zinc is very useful by supplying the crop at the vital 3 leaf stage (which is floral initiation), which is often some time before a post-emergent herbicide and foliar package is sprayed



Seed fungicides

Now is seed treatment time, and a relevant time to think about appropriate seed "pickles"

It is very difficult to recommend Baytan (triadimenol) as it shortens the coleoptile which affects emergence % and vigour. This includes Spartacus barley.

Raxil T remains the mainstay for wheat in the absence of crown rot and rhizo (and barley in some cases). The standard treatment for barley remains **Rancona Dimension** because of rhizo and loose



Pre-emergents for this year

Trifluralin will be in short supply due to one large distributor being caught short, and a chemical plant explosion in one of China's industrial provinces (yet again!). With both an international supply issue and domestic procurement problem acting together, the price for trifluralin has gone up by about a third. The final retail price may sit somewhere in the \$7.30-7.40 vicinity, but this is yet to play out completely with currency impacts.

We have come to realise that this is not the end of the world! A spend of around \$11 a hectare to control ryegrass will prevent a yield loss of at least 200kg/ha, or \$60/ha. Still great return with a cost:benefit ratio of 5.5:1

If you haven't secured all or at least a majority of your trifluralin, there may be slightly dearer parcels around, order only basis.

For paddocks with a history of heavier ryegrass burden, it is an opportunity to look at prosulfocarb- it is reasonably soluble so it tends to migrate into the shoulders of the furrow. Prosulfocarb is a Group J, which provides trifluralin a rotational break, and works better under high numbers. Prosulfocarb is registered for both wheat and barley, and costs between \$26-31/ha. Another variation to improve weed control in a dry start is Prosulfocarb 800 @ 2.5L/ha and Clincher Gold at 600mL/ha.

Sakura (Group K, wheat only) is available in two formulations- the original 850 water dispersible granule, and also a 480 flowable at 210mL/ha. Sakura is quite persistent, and will control winter germinations of ryegrass whilst the crop is growing.

Triallate (Group J) is a different mode of action to prosulfocarb, although there have been instances of cross resistance with prosulfocarb. Triallate makes a great mix partner to trifluralin for wild oats and brome grass, or with Sakura for improved brome control.

Pulses/vetch - Simazine and diuron supplies are okay. **Sputnik** is used widely in chickpeas and faba beans to control thistles as well as brassica weeds.

Canola- there is increasing use of *propyzamide* for an alternative mode of action against ryegrass in both Clearfield and glyphosate tolerant canola. Edge WG is a high-quality dry formulation, but don't try to mix it with potassium salt glyphosate or paraquat. Front Row is a liquid formulation of propyzamide which has a good reputation for ease of mixing.

Weatherwatch

The ENSO is currently neutral, and the BOM is expecting it to remain neutral until autumn.

The IOD has displayed a consistent weakening trend, and is now below the threshold of +0.4

	SOI	IOD
29/9/19	-12.4	1.76
28/10/19	-5.6	2.01
1/12/19	-9.3	1.14
29/12/19	-4.4	0.31

Bulk up Timok vetch

Vetch hay has been one of the most profitable crops in the last 3 years. Northern graziers have been focused on buying the high quality hay due help offset transport costs.

We hope the rains kick in up north, and reduce hay demand for their sake. However, the vetch hay market will remain healthy due to lack of water available to the dairy industry. Basically there are some very determined dairy producers that are focused on maintaining very high numbers, and becoming more organised as cut-and-carry farmers than grass grazers.

Timok was released in 2015 and remains the ideal variety for hay production with a very high production advantage and a more appropriate flowering time compared to Rasina.

There is limited certified Timok seed available- call us at SHSF and secure

	DM (t/ha)	Flowering (days to)	Botrytis reaction
Morava	4.37	110-115	VS
Rasina	3.94	90-105	M
Volga	4.82	80-100	M
Timok	5.09	95-110	S

Data: Courtesy S. Nagel (vetch breeder)- 5 years' trial work in South Australia

Below: Timok and Wallaroo oats as a trellising crop



Soil testing to start

Fertiliser is often the biggest input investment, especially on sandy soils. Soil sampling for surface nutrients such as phosphorus and zinc can proceed straight away. The nitrogen story will change after a rain, so deep N testing can be put back.

Also a reminder that January and February are appropriate times for sampling and submitting soil samples for **Predicta B** root disease evaluation.

Proof that the late, great Richie Benaud was human: "The slow motion replay does not show how fast the ball was travelling.."