

## January 2021 Agronomy News

### **In this (brief) issue;**

2020 weather in review

New barley varieties coming

New grazing vetch variety

Is ammonium sulphate really beneficial for spraying?

Time to replace Hurricane XT lentils

Outright 770- Decision pending

2021 farm planning begins

### **2020 weather in review**

The 2020 season for the Northern Mallee could be best summarized as "We were close..."

We entered the calendar year with dry subsoils, followed by an inch break early March. The growing season was defined by a nice patch of rain in early May, followed by a very dry June and July.

The frosts on August 5 and 6 were doozies, and crop condition declined greatly. The day was saved on August the 8<sup>th</sup>, and a cool dry finish followed.

### **New barley varieties**

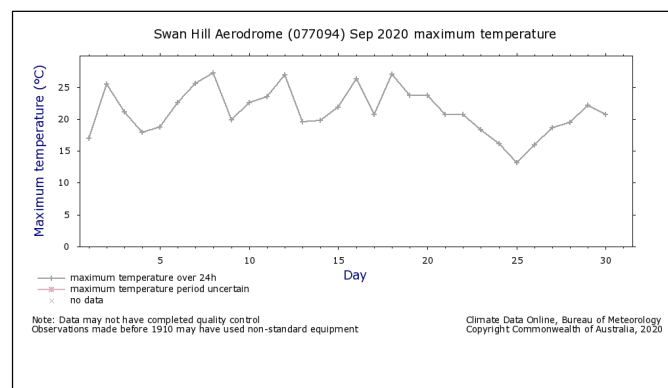
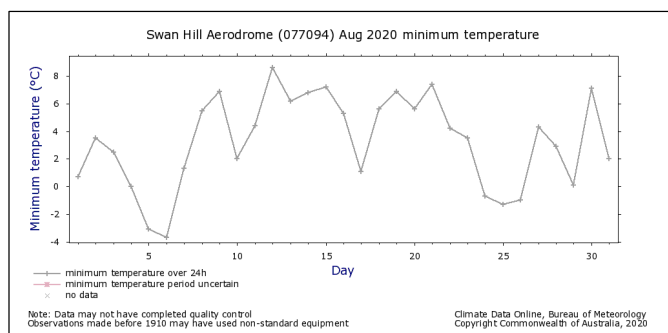
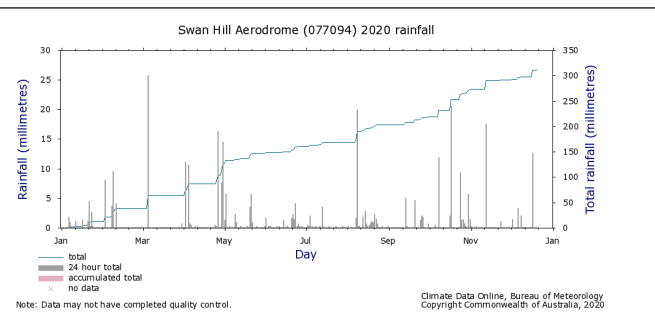
**Maximus CL** (Intergrain) is the Spartacus replacement. Very much identical in appearance, but with a couple of percent higher yielding and a more forgiving net blotch rating

**Beast** (AGT) is a conventional barley best described as a Compass-Hindmarsh cross. Beast topped the Manangatang NVT and ranked second at the Ultima NVT site this year. More info to come.

**IGB 1908/1967** (Intergrain) is a Clearfield Compass type with high yield potential. As expected it has reasonable resistance to blotches and improved vigour/ ground cover on sands

**Laperouse** (Seednet) is a long-season barley for irrigated or high rainfall situations

Wheat and canola variety report coming next issue of SHSF Agronomy News





Variety (all info courtesy S. Nagle)	Maturity	Waikerie 15/8/2018 Dry matter	Walpeup 25/8/2018 Dry matter
<b>Studentica</b>	Very early	4.81	3.22
<b>Morava</b>	Mid	3.69	1.71
<b>Rasina</b>	Early	3.96	Missing data
<b>Timok</b>	Mid	3.75	2.11
<b>Volga</b>	Early	4.21	2.19

**NEW grazing vetch- “Studentica”**

This newsletter has previously mentioned the potential release of a new grazing vetch. **Studentica** is a very cold tolerant, fast-growing common vetch ideal for sheep producers.

Timok has that rapid growth in spring sought after by hay producers, and will remain the preferred hay variety. Studentica has the best winter growth going around- the above data comes direct from the National Vetch Breeding Programme manager Stuart Nagel. Product positioning; Studentica will be perfect for sheep producers from Swan Hill up to Mildura because of its high winter production. Studentica should not be considered for hay as it flowers very early- typically it will be terminated early September.

Seed will be available from SHSF, but be quick.

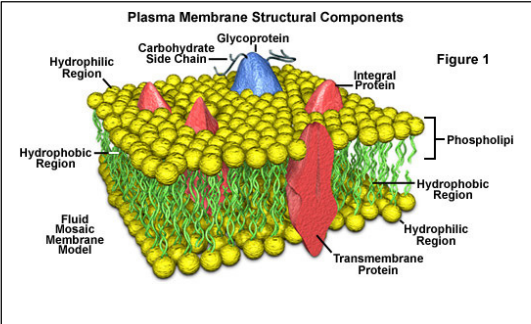
**Is ammonium sulphate really beneficial for spraying, or just “spin”?**

**Warning: some science content below!**

We all know that AMS ties up the calcium and magnesium that interferes with glyphosate. Glyphosate-calcium has low solubility and tends to remain on the leaf surface rather than entering and translocating throughout the plant.

There is another very important positive mechanism that AMS performs; it is a hydrogen donor just outside of the plant cell. That means very little to us initially, but when we consider that the actual cell wall is a final barrier to herbicides it all makes sense. Group M, A and B herbicides need to enter the cell itself to do their thing, and the cell wall is a partial barrier (ever so slightly lipophobic). AMS donates a hydrogen ion (H+), creating a slightly more acidic area at the external cell wall surface- this draws in more herbicide and faster.

In the US, ammonium sulphate is considered mandatory for glyphosate, IMIs, clethodim (and all other Group As).



The plant cell membrane has three layers. The outer hydrophilic (water-loving) layer is also lipophobic (fat-rejecting), so it dislikes one end of the glyphosate molecule

AMS donates a hydrogen ion near that layer, creating a more acidic zone that draws in the glyphosate molecule.



**Time to replace Hurricane XT lentils**

We have been awaiting a suitable replacement for PBA Hurricane lentils. Hurricane still exhibit some frost sensitivity, and can be hard to harvest.

**PBA Hallmark XT** and **PBA Highland XT** are the direct replacements. Both are medium reds. Hallmark offer highest yield potential, and Highland more consistency with grain size.

This years' NVT data is just out:

NVT site	Yield advantage of Hallmark vs. Hurricane	Highland vs. Hurricane	Trial average yield t/ha
Ultima	+16%	+17%	1.30
Birchip	+12.5%	+4%	2.07

Hallmark (left) is very easy to harvest compared to Hurricane



**Outright 770- "Decision Pending"**

There has been a fair amount of advertising out there lately for the knockdown adjuvant **Outright 770**. It is a mix of ammonium sulphate, stearified vegetable oil and non-ionic wetting agent.

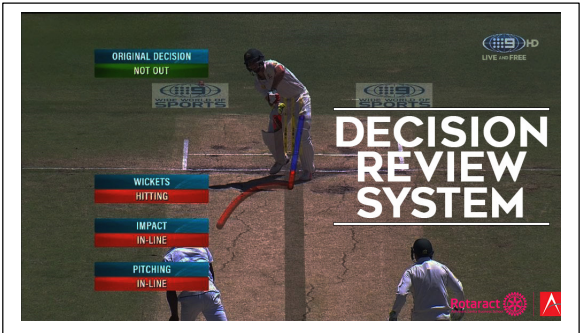
At the top rate of 500mL/100L, this is the equivalent of;

15% of the normal AMS rate

10% of the normal Infiltrator/ Bio-Aid rate

82.5% of the wetter 1000 rate.

This product would no doubt work well in winter conditions- can anyone provide feedback on any summer jobs?



**2021 farm planning**

January 1 begins the thought processes for the next crop. Our planning focus should focus on;

- Soil testing and nutrient budgeting
- Rhizoctonia management in barley
- Risk management of the whole operation
- The value of fallow and brown manures
- Identifying opportunities

**Dad Christmas joke:**

Why did Santa's little helper visit the psychologist?

He had very low elf-esteem...

