



Pulse Check Newsletter

Mar/Apr 2020

Mungbean Seasonal Update

Many mungbeans crops are getting towards the end, while others in CQ will be just getting to flowering. Those in southern Qld and NSW will be wanting the warmer weather to continue to keep filling pods and maximise their yield before potential frost which can happen from Anzac Day.

This is a quick Pulse Check seasonal update to cover off on a few topics that were to be covered in a range of in field walks that now can't go ahead due to the current restrictions on travel and gatherings.



Weed Control

Most in crop weed control operations will have been completed and hopefully have had successful results.

There has been export issues in the past couple of seasons with levels of haloxyfop in grain being above the maximum residue levels (MRLs) set by the importing country, this may require the consignment to be shipped elsewhere or the consignment destroyed at your cost. Countries can have different MRLs they deem acceptable for this and many other chemicals.

It is preferable that the use of such in crop chemicals did not exceed these MRLs, the reasons for such an incident happening could be due to several possibilities eg using higher than label rates, using at a later growth stage than the label recommends, an uneven crop (part crop flowering, part not), not observing the withholding period, etc.

The best thing any grower can do to assist their marketer avoid issues with MRLs is to be as accurate as possible when filling out your **Grower Declaration**, this includes the product, rates and at what stage the crop was at when applied. The marketer can then make an educated decision of the risk of MRL issues and what destination it will have a best fit.

(<http://www.mungbean.org.au/assets/amagrower-dec-2016-17-form.pdf>)

This is an industry wide problem that if everyone makes a concerted effort to address will ensure Australia keeps its Clean and Green image it has developed over many years.

Insects

There has been a range of insect pressures across the regions, from little to no pressure from any insects to crops having 2-3 in crop sprays. The local specialist, DAF Queensland entomologist Hugh Brier has been reporting many of the issues via www.thebeatsheet.com.au

Beet webworm

A recent flare up across Queensland has been a brown with white stripe moth known as Beet



webworm (<https://thebeatsheet.com.au/beet-webworm-moths-visit-mungbean-crops/> <https://thebeatsheet.com.au/a-tale-of-two-moths-and-their-larvae-beet-webworm-and-bean-podborer-in-cq-mungbeans/>).

There has been significant numbers and a step in a crop can lead to 20, 30, 40 moths flying up and settling around you. Hugh has never seen damaging infestations of beet webworms, however does suggest with large numbers around to keep a close eye on webbing and damage from larvae.

New Registration

Agnova has recently extended the label for Starkle® to include green mirid control in mungbeans. It had a previous registration in cotton. For resistance management it fits into MOA Group 4A and should have no more than 2 applications per crop or within 14 days of the previous application.



It is a systemic chemical that has activity on nymphs and adults either by contact or ingestion. It has a moderate impact on beneficials and causes no resurgence of Helicoverpa.

There is a 14 day withholding period before harvest as per the label. The label also states that commodities destined for export may require extra time between treatment and harvest and to discuss any potential trade issues with an industry body or Agnova. The Australian Mungbean Association (AMA) advises that users follow the label directions, adhere to the 14 WHP and any treatments are to be recorded on the **Grower Declaration**.

More Information: <https://www.agnova.com.au/products/starkle.html>

Disease

Diseases have been relatively few and far between for many crops. However Halo Blight has been evident around the Darling Downs.

Halo Blight

Halo blight is a seed borne bacterial disease, it prefers cooler temperatures and moisture to proliferate. It has no control options once it becomes established. Halo blight while present this season has not lead to crop wipe outs and in my opinion it is due to rain events being limited since the big rains of late January and February that most crops were planted on, so infections happened however don't move too widely within the crop without follow up rain events.

If your crop does have a level of infection from Halo Blight, or the other bacterial disease Tan Spot, decisions will need to be made about the risk associated by keeping seed for next season. As a seed borne disease if it is present in the crop it will carryover in seed. If the level of disease is low this may

be an acceptable risk for next season, if pressure is high then it would be recommended to get hold of AMA approved seed to plant with next year.

Powdery Mildew

The environmental conditions at this time of year are considered ideal for powdery mildew with cool nights and dewy or damp conditions favoured by this fungal disease. Again levels are currently low possibly due to there not being a green bridge available for inoculum to build up on prior to planting mungbeans.

Those later crops that have brown pods developing there may be no benefit in controlling powdery mildew if it becomes evident in the crop. If the crop is just flowering or mid pod fill be on the look out for the tell tale grey/white hyphae on the lower canopy leaves. Control methods using fungicides are very good with the best control achieved by spraying at first sign with a follow up spray in 14 days. This was the outcome of research undertaken by USQ and DAF over several seasons with further info here <https://communities.grdc.com.au/field-crop-diseases/mungbean-powdery-mildew-fungicide/>

This research also helped to develop a decision support tool for growers and agronomists in the form of an app for iPads and Androids, the app is called PowderyMildewMBM. The app asks for details on crop circumstances, such as target yield, grain price and production cost; and about growing conditions, such as crop growth stage, whether disease has been detected, and whether the next week's forecast includes rainy days and favourable temperatures. With inputs on the cost of spraying, it then calculates spraying benefits. (Source: <https://groundcover.grdc.com.au/story/6308039/app-calculates-fungicide-benefit/>)

New Variety

A new variety is set to be named and released from the DAF and GRDC National Mungbean Improvement Program (NIMP) very shortly to be commercially available for the '20/21 season.

This new variety will be a large shiny type with the best Halo Blight with these seed characteristics. Seed size will be slightly smaller than Jade-AU, but still acceptable to the export market. This variety will be best suited to the Callide Valley, southern Queensland and New South Wales where Halo Blight is more often experienced. It will out yield not only the current large seeded varieties but also the small seeded Celera-II which is rated moderately resistant to Halo Blight. (see Table following)

This new variety will have a particularly good fit for past, existing and new growers in NSW where mungbeans have somewhat fallen out of favour due to high disease pressure.

Look out for further information and promotional material of this new variety which will be named shortly following the NIMP naming convention of using gems. Seed will be available for the next planting opportunity.

Mungbean regional yield performance since 2012

Variety	Central Highlands Western Downs	Callide	SQ, NSW
Berken	81%	85%	77%
Celera II-AU*	39%	71%	122%
Crystal	95%	103%	97%
Jade-AU	1.34 t/ha	1.36 t/ha	1.08 t/ha
Satin II	94%	95%	94%
New release 2020	90%	113%	128%
Best line for CQ	110%	109%	103%
	12 sites	4 sites	10 sites

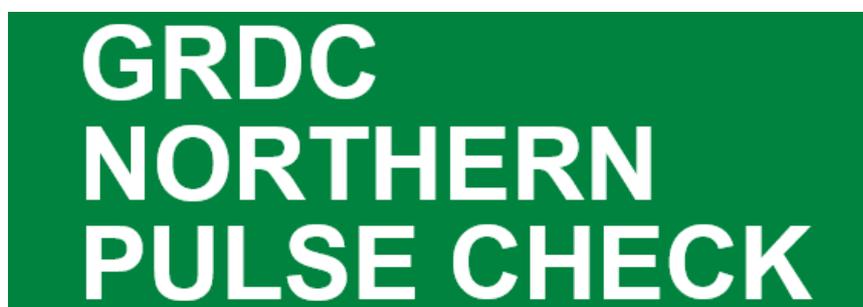
Jade-AU is expressed in tonnes per hectare and other varieties as a percentage of Jade-AU. *Celera II-AU yields compromised by early maturity in Central Queensland trials

Markets

The outlook for mungbeans in the '19/20 season has been good from the outset with demand from our normal export destinations. The later the season started generally had prices on the increase. In the last month with COVID-19 and the drop in the Australian dollar prices are around the \$1,200/t mark for the manufacturing grade and go up from there.

A recent report on Grain Central confirmed these quotes but did suggest that there could be some logistics concerns with a lack of containers available in Australia with reduced shipping also a consequence of COVID-19. (<https://bit.ly/2XIHOGf>).

The area of mungbeans is estimated at 70,000ha, with an industry average yield of 0.9t/ha will result in a total of 63,000t. This is well below what the industry has exported in previous years, with a high of 150,000t. This is likely to mean if you have uncommitted beans at harvest there will be a ready buyer somewhere for it.



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Social Media



Northern Pulse Check CCA

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The GRDC Northern Pulse Check project seeks to support and develop strong profitable pulse production systems across the GRDC Northern Region. It seeks to engage with grower, researcher, and industry stakeholder to encourage greater sharing of information, through a range of pulse related extension and communications activities.

