EPARF Member Technical Newsletter

July 2018 – No 3

After another year of very patchy autumn and early winter rainfall pattern, seeding is finally over on Western, Central and Eastern EP.

Some programs were cut back due to the late start/poor moisture and the requirement for livestock pasture. Reduced areas of canola and pulses are common on upper Eyre Peninsula, and an increased sowing of oats for feed/hay and barley appears to be a trend across the district.

The table below is a representation of approx growing season rainfall to July 4th – some pretty grim figures. However, despite the infrequent and small rainfall events to date, it appears that a greater area of crop has emerged in some regions compared to this time last season.

RAINFALL DECILES TO JULY 4th 2018

Rainfall Centre	Growing Season Decile to July 4th
Cummins	*2 (88mm)*
Ungarra	*3 (91mm)*
Ceduna	*4 (75mm)*
Cowell	*1 (28mm)*
Darke Peak	*1 (37mm)*
Kimba	*2 (60mm)*
Kyancutta	*1 (38mm)*
Lock	*1 (51mm)*
Penong	*2 (52mm)*
Wudinna	*1 (39mm)*
Wirrulla	*4 (71mm)*
Wharminda	*4 (44mm)*
Cleve	*Lowest On Record (32mm)*
Minnipa	*2 (38mm)*

While rainfall to date has been patchy and light, have a look at the CliMate app for a cheer up. This app uses historical BOM rainfall records to position rainfall and temperature experienced for a given period, and to give the likelihood of rainfall in the future based on historical records.

A product of the GRDC funded EPARF project: Maintaining profitability in retained stubble systems (EPF00001).

CliMate suggests most places on EP have experienced lower than average temperatures for the past month – no surprise. Enter most recording centres on Upper EP and you will find a good chance of receiving 35mm or rainfall or more in July based on historical data. 35mm will turn the country side around!

Crop Management

Crops range from 0.5 leaf to mid tillering on EP. Better soil types in some areas have enabled crops to set themselves up well with healthy leaves and roots. Crops on the heavier and saltier soils, and some of the grey calcareous soils are really struggling.

Most cereals need to be at least 3 leaf, and actively growing, to cope with applications of broad leaf herbicides. There are some products that can be applied from 2 leaf, but they are usually the premium priced products.

Avoiding products that can cause phytotoxicity/scorching is a good idea when crops are not growing vigorously. Also try to avoid products that can prune crop roots.

If possible, avoid applying broadleaf herbicides to stressed crops, to crops less than 3 leaf (read the label) and before or immediately after periods of frost.

Obviously there often needs to be some compromise when spraying paddocks with staggered emergence. Parts of paddocks are under massive pressure from broadleaf weeds, volunteer pulses and medic. One option is to spray the soil type with the advanced crop first, and come back for the less advanced crop once it reaches the correct growth stage.

Pasture manipulation

Grass removal and broadleaf weed control/suppression in legumes will begin as soon as a decent rainfall is received. There has been a fantastic germination of medic in many paddocks, but growth has been restricted by lack of moisture and frosts.

Remember to keep stock off some paddocks for the next few weeks to allow the pasture to bulk up. Set stocking pastures in years with a slow start is not always the best management strategy and can result in poor dry matter production for the entire season.

Recent research by Brian Dzoma and Fiona Tomney from SARDI investigated the impact of some broadleaf herbicides on nitrogen fixation and dry matter production in medic. The full article is available in the EP Farming Systems Book or on the EPARF website. They demonstrated that some commonly used broadleaf herbicides can reduce N fixation and dry matter production. If you plan on using a broadleaf herbicide like MCPA amine to suppress broadleaf weeds in pastures, applying it early may reduce the impact on total medic dry matter production and nitrogen fixation when compared to a later application. When paddock feed is at a premium, make sure you don't ruin potential spring medic growth.

Livestock

The majority of livestock across EP are still being supplementary fed until pasture feed gets away – don't overlook the importance of maintaining your stock in average or better condition, particularly during this high feed demand period of lambing/calving time, lactation, weaning, cold conditions and shearing. Allow pastures to get away to at least 500 kg/ha of biomass before grazing stock, as both

sheep and cattle will lose condition chasing the green pick. Introduce them to paddock feed slowly by continuing to provide supplementary hay and grain in the paddock.

For some areas the opportunity to graze crops during early growth stages may present itself to fill the winter feed deficit and to give pastures a chance to get away. If you have sufficient growth to graze crops (ideally cereal/canola height 10 cm or 500 kg/ha and 1000 kg/ha biomass for sheep and cattle respectively), choose a paddock low in weeds and begin grazing any time after plants are anchored. To minimise the risk of grain yield loss, remove stock before GS30 and for canola before the buds elongate more than 10 cm. Do your sums with grain prices vs. supplementary feeding livestock to see if some paddocks are worth a sacrificial graze (using the crop for feed only).

Wheat crops are deficient in magnesium for livestock, therefore supplement animals with a loose lick of equal parts of Causmag (MgO), ground limestone and salt at 20 g/day for sheep and 150 g/day for cattle if grazing wheat. Pregnant or lactating ewes as well as sheep on grain rations will also be lacking calcium, so ensure to provide supplementary stock lime and salt (at a ratio of 3:1) in the paddock or containment area. Remember the key livestock nutrition requirements: ENERGY to maintain liveweight and ensure survival, and PROTEIN for growth i.e. meat, wool, milk for pregnant, lactating and growing animals.

More information on “Grazing cropped land” can be found on the Grain & Graze 3 website: http://www.grainandgraze3.com.au/resources/4.%20Grazing%20Cropped%20Land%20(June%202016).pdf

Diseases

Some diseases express themselves more when crops are under stress. It is common to see stressed barley plants with more spot form of net blotch disease, and rhizoctonia infection can be more severe when roots are slow growing. Monitor crops carefully so you can prioritise and plan your spray program (weed and fungicide application if required).

There have been some reports of blackspot in field peas, but poor rainfall has generally limited disease progression and expression in many crop types.

Decontaminate your Boom

Read your herbicide labels. They contain information on how to thoroughly decontaminate a boom to avoid crop/pasture damage. Different products require different decontamination procedures and chemical solutions to assist with removing traces of chemical from the boom tank and lines. You will need chlorine solution, alkali detergent and boom cleaner. Remember to clean and soak all the filters. Crop and pasture damage from boom contamination is usually caused by laziness. It is common but avoidable.

Yellow Crops – some possible causes

- Repeated frosts combined with some moisture stress and herbicide application have all contributed to some leaf yellowing on cereals and pulses.
- Some early boron toxicity is expressing in barley grown on the higher boron soils.
- Severe moisture stress can cause many symptoms but yellow older leaves on spindly plants are not uncommon on EP at the moment.
- “Footy socks”, or yellow bands on the first cereal leaf are common when crops emerge slowly, or experience very cold temperatures during emergence.

- Group C herbicides applied to dry soil at sowing leeched onto crop roots during the last rain event – more prevalent on sandier and grey soils.

Slow Crops – some possible causes other than moisture and temperature

- Herbicide residues from 2017 have slowed up some crops eg “Clearfield” herbicide products, atrazine applied to canola, and late or high rate application of Lontrel in 2017 prior to sowing a legume in 2018.
- Sakura® can slow crop development if cold or stressed conditions follow emergence.
- Fertiliser toxicity has pruned some roots where fertiliser was placed close to the seed in a drying soil profile.

Rainfall Outlook

Follow the forecaster that makes you feel good, but don’t make plans as a result of the forecast.

Copy this link into your internet browser to get a good overview of the reputable models. Subscribe and get regular updates.

http://agriculture.vic.gov.au/agriculture/weather-and-climate/newsletters

Download the CliMate APP – excellent app that provides probabilities of achieving climatic outcomes based on historical data. For example. Click on how often, plug in Wirrulla.

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