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## Wet Weather Strategies

It's been many years since wet paddock conditions throughout September have delayed ground preparation like they have this season.

There is still plenty of time to sow within the recommended window. For those who still have a lot of preparation before sowing have the choice to either:

1. prepare paddocks as they normally would and sow later than optimum, or
2. take some 'shortcuts' with preparation to achieve timely sowing.

This newsletter looks at how late you could sow and some other tips on shortcuts that might be useful to get that crop in.

Thanks to Brian Dunn Research Agronomist (Irrigation) NSW DPI and John Fowler Extension Agronomist Murray Local Land Services for providing the wet weather strategy information contained in the following pages.



## Inside this issue:

[Events Calendar](#)

[How late can I sow?](#)

[What is the best sowing method to use?](#)

[How do I prepare wet paddocks for timely sowing?](#)

[How do I manage trash at sowing?](#)

[How do I apply fertiliser in a wet 2016?](#)

[Adopting new practices - is this the year to have a crack at drill sowing?](#)

[International Temperate Rice Conference March 2017](#)

[New Varieties YRM70 and YRK5](#)

[Farmers Newsletter Rice Edition](#)

[New re-sowing recommendations](#)

[Desiccation or pre-harvest herbicide application](#)

[Wet conditions and retaining chemically treated rice water on farm](#)

## Events Calendar:

Innovators IV	1 December 2016	Finley	Save the Date
<a href="#"><u>International Temperate Rice Conference</u></a>	6 to 9 March 2017	Griffith	Early Bird Registrations close Friday 21 October

Click on the title to take you to the article



## How late can I sow in a wet 2016?

Temperatures have the highest probability of being warmest between 15<sup>th</sup> Jan and 5<sup>th</sup> Feb. This is when microspore should be. The following tables show the latest you can sow and still reach microspore by 5<sup>th</sup> Feb and maintain yields. This data comes from the results 14 experiments over 4 years and the recommended dates are *not* the result of a 'knee jerk reaction' to the wet weather.

### MIA and CIA aerial sowing dates (For drill sown crops, the first flush should be 6 days before aerial sown crops.)

Variety	Current recommendation	Latest date recommended for sowing
Reiziq	15-31 Oct	10 Nov
Topaz	15-31 Oct	31 Oct
Langi	20 Oct-5 Nov	10 Nov
Doongara	10-31 Oct	31 Oct
Sherpa	20 Oct-10 Nov	15 Nov
YRM70	5-25 Nov	30 Nov

### Murray Valley aerial sowing dates (For drill sown crops, the first flush should be 6 days before aerial sown crops.)

Variety	Current recommendation	Latest date recommended for sowing
Reiziq	10-25 Oct	5 Nov
Koshi	10-25 Oct	30 Oct
Illabong	10-25 Oct	25 Oct
Langi	15 Oct-5 Nov	5 Nov
Sherpa	15 Oct-5 Nov	10 Nov
Opus	15 Oct-5 Nov	5 Nov
YRM70	1-20 Nov	30 Nov
YRK 5	1-20 Nov	30 Nov



## What is the best sowing method to use in a wet 2016?

**Aerial sowing** is the preferred option this year because it has the shortest time to flowering. Pre-germinated seed is best in tough conditions.

Airstrip maintenance is important. Ensure good strip condition for wet weather and truck access - having to ferry product because strips are damaged is dead money!

**Drill sow** if fields are ready to be sown. Drill crops onto layouts with very good drainage and be careful of wheel ruts ponding water. Drill sowing will delay flowering 1 week longer than aerial sown crops.

**Do not delay permanent water** (DPW) on rice crops this year. DPW crops take 2 weeks longer to flower than aerial sown crops and low water use is not high on the priority list.

### FAST FACT from MapRice data last season across all regions:

#### Sowing method

Drill sowing	36%
Aerial	26%
Dry broadcast	38%

## How do I prepare wet paddocks for timely sowing?

Some things are essential to achieve, even if they delay sowing to ensure optimum yields at harvest:

**Establishment** - achieving an adequate plant stand. Even plant stands can be as low as 50 plants/m<sup>2</sup> without any loss of yield potential.

**Water control** - the ability to have shallow water early (while still covering the clods for weed control); deep water later is essential.

**Timeliness** - the more sowing is delayed beyond the recommended period, the greater the risk of failure.

**Weed control** - good weed control is essential, but if your desired technique delays sowing beyond the recommended window, find an alternative (even if it's more expensive).

## How do I manage trash at sowing?

The main way to shorten paddock preparation time is to be willing to tolerate more trash at sowing. The main problem trash causes is slime. If you don't have time to get rid of the plant material, use a knockdown herbicide to produce a good brown out. This can minimise slime problems (but will not eliminate it).

If sheep are used to help remove plant material after spraying, use a high rate of glyphosate. Other chemicals are likely to have extended stock withholding periods.

Otherwise, use other herbicides in addition to glyphosate to achieve a quick brown out. Phenoxy herbicides are good at controlling thistles (but have a 7-14 day rice plantback), Group G (e.g. Hammer®, Goal®) help gain a quicker and better brownout and Lontrel® is good at controlling trefoils and medics. All of these products have formulations that are compatible with glyphosate formulations, but are not necessarily compatible with each other, so talk to your commercial agronomist before deciding which best suits your paddock situation.

Whichever chemicals you use, be sure to adhere to label directions.



## How do I apply fertiliser in a wet 2016?

### The 'Do Nots' of N application to rice:

- Do not spread urea onto a wet soil surface: Urea spread onto wet soil can not move into wet soil when permanent water is applied and up to 50% of the nitrogen may be lost due to volatilisation.
- Do not spread urea into flooded bays when rice plants are very small - up to 50% of this N can be lost by volatilisation before the rice plants are large enough to use it.

### The 'Dos' of N application to rice on aerial/dry broadcast crops if too wet to drill urea into the soil prior to filling up :

**Option 1: Multiple topdressings** Sow the crop on time without nitrogen. At early tillering, topdress about half the urea rate that you would normally have drilled into the soil. Apply the other half in a second application at mid-tillering. Do a nitrogen tissue test and final topdressing at PI.

**Option 2: Drain and topdress after establishment** Sow the crop on time without nitrogen. Once an aerial sown crop has established (about 40 days after sowing) it can be drained then managed like a drill sown crop, spread urea onto dry soil prior to the application of permanent water. This approach is more nitrogen efficient than the previous option, but may lead to extra herbicide requirements.

**Drill sown N management:** N application on drill sown crops is less likely to be affected by wet soil conditions.

**What about other fertilisers?** Starter fertilisers used at sowing can be left out this season without undue impacts on the crops. Yield responses to phosphorus are unlikely if the soil has a Colwell P of 20 mg/kg or higher. **If zinc is required, it can be applied as a seed treatment.**

### FAST FACT from MapRice GIS data:

In the Murray Valley Sherpa sown in November last year yielded as well as earlier sown Sherpa crops:

18 Sherpa crops were sown in November 2015 with an average yield of 10.8t/ha

47 Sherpa crops in total were sown in the Murray Valley and the total average yield was 10.9t/ha.

The very last sown Sherpa crop yielded 10.9t/ha, sown 16 Nov 2015.

### FAST FACT from MapRice GIS data:

In the MIA and CIA dry broadcast or aerial sown pre-germinated seed crops yielded better than aerial sown with dry seed .

11 Reiziq crops were aerial sown dry seed and yielded an average of 11.5 t/ha.

20 Reiziq crops were aerial sown pre germinated and yielded an average of 12.1 t/ha.

92 Reiziq crops were dry broadcast and yielded an average of 13.1 t/ha.

### FAST FACT from MapRice GIS data:

Reiziq sown in Nov in the MIA and CIA last year yielded well.

5 Reiziq crops sown in Nov had an average yield of 11.1 t/ha.

33 Reiziq crops sown 20-31 Oct had an average yield of 11.3 t/ha

61 Reiziq crops sown 10-20 Oct had an average yield of 12.5 t/ha



## Adopting new practices - is this the year to have a crack at drill sowing?

Sowing recommendations for the new varieties YRM70 and YRK5 and Koshihikari are that they be drill sown. Drill sowing encourages shorter plant stature and larger root system which will assist in reducing crop lodging prior to harvest. Drill sowing also has advantages for all varieties including water savings and a reduction in damage from ducks, slime, snails, wind to name a few.

Last year, with limited water, rice growing practices focussed on saving water. Despite this and the science showing drill sowing saves water, drill sowing only accounted for 36% of the rice crop last season - 26% of crops were aerial sown and 38% dry broad cast according to last season's MapRice GIS information collected from growers at sowing.

There are many reasons why drill sowing hasn't had a larger uptake including needing to learn the skills or knowledge to manage a drill sown crop.

The question remains when should you take risks in adopting a new management practice?

It isn't often you can master a new management practice first go.

This year the land (paddocks) available for growing rice is the limitation and water is relatively cheap with off allocation still available in all valleys.

Is this season (a year of low cost of production) the year to experiment and try drill sowing on a small area in preparation for the next time we are hit with low allocation/ high temporary water prices? Maybe then drill sowing the new shorter season varieties and Koshihikari will not be so daunting next season?

With unreliable irrigation water supplies and late allocations becoming the norm, it would make sense to learn the skills of drill sowing in a low input cost year.

No one system fits all soil types or irrigation layouts when drill sowing. Although the fundamentals are the same, including sowing rate and timing and weed management, the finer points are perfected by trial and error particularly on your soils and in your irrigation system.

However, it is vital that you are not doomed to fail from the start and plan the process thoroughly as **“those who fail to plan, plan to fail”**. Part of the plan should include support from an experienced farmer or advisor.

If you don't have the paddock set up this year start planning for preparations in summer, such as laser levelling. If you are considering drill sowing make the most of this season by “watching a neighbour over the fence” who is drill sowing during this season to learn some tips for next year.

For further information on drill sowing see the [Primefact Management of drill sown rice 2015](#)

### FAST FACT from MapRice GIS data:

Drill sown Sherpa crops yielded as well aerial pre germinated Sherpa crops across the Murray Valley last season:

11 crops were drill sown and yielded an average of 11.2 t/ha.

25 crops were aerial pre-germinated and yielded an average of 11.1 t/ha

3 crops aerial dry seed into water averaged 7.9t/ha



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Sowing Rice 2017 -  
drill sowing Reiziq into moisture  
using a JD Single disc seeder





**Registrations are now open for the 2017 International Temperate Rice Conference, with Full Delegate Early Bird rates on offer until **Friday, 21 October 2016**. Full Delegate Early Bird: \$770.00. Full Delegate: \$880.00. Student Delegate: \$440.00.**

## International Temperate Rice Conference March 2017

You are invited to the International Temperate Rice Conference, which will be hosted in Griffith, NSW from 6-9 March 2017.

Designed to showcase the latest in temperate rice research, technology and innovation, this premier conference will bring delegates from around the world and Australia to this region. Centred on the theme 'Tradition, Technology, Productivity – A Balancing Act', the four-day conference will feature a series of dynamic presentations covering rice breeding, agronomy, biotic and abiotic stress, irrigation and soils, crop protection, quality and processing, environment, precision agriculture and extension.

“With a respected and knowledgeable line-up of industry experts on board, the conference will be an invaluable experience ,” said Russell Ford, Manager of Rice Research Australia Pty Ltd (RRAPL) and head of the conference organising committee.

“This will be a platform for sharing fresh ideas and insights, exploring cutting-edge technology and furthering research and development in temperate rice moving forward.”

Not to stop there, the conference experience will extend well beyond the auditorium, with plenty of on-farm and field activities and social events for delegates to enjoy.

A Farm Tour to Benerembah will kick off the first official day of conference, giving delegates the chance to observe the cutting-edge technologies and innovative rice trials taking place on the Braithwaite property; a Welcome Reception and Conference Dinner will allow plenty of time for delegates to network with their international peers in a more relaxed setting; and a bus trip to the Rice Field Day at 'Old Coree' Jerilderie will close out the conference experience with a final day of field walks, presentations and innovation forums.



International Temperate  
Rice Conference

To find out more or to register now,  
head to the conference website:

<http://www.itrconference.com/>



## Release of YRM70 and YRK5

The Australian Rice Partnership is continuing the evaluation of 2 new shorter season varieties with seed increase through the pure seed scheme and a number of commercial scale trials. If all goes well with the 2 varieties this season with both the agronomic performance and market acceptance then they will be named and released next season.

The Rice Extension team, NSW DPI Breeders, Researchers and SunRice Grower Services will be continuing to watch these 2 varieties' across the rice growing regions, under different farmer management practices.

They will be measuring and analysing all facets of the growth and yield of the new varieties to capture the best management practices for extending to growers prior to sowing next season in Variety Specific Agronomy Packages.

If you plan to sow either of these varieties this season Rice Extension would like to hear how they are going.

**YRM70** is a semi-dwarf medium grain variety that has similar grain quality characteristics to Reiziq but with improved cold tolerance similar to Sherpa and a shorter growth duration.

**YRK5** is a semi-dwarf 'Japanese quality' short grain variety that is similar in grain quality characteristics to Opus but with improved cold tolerance and a shorter growth duration.

**YRK5 and YRM70 are around 14 days shorter to flowering so need to be planted in November.**

### YRM70 and YRK5 have an increased tendency to lodge

To prevent lodging prior to permanent water reduce the nitrogen rate to 75% for YRM70 and 70% for YRK5 from what you would normally apply to Reiziq or Sherpa. At PI topdressing to ensure maximum yield and reduce lodging make use of the NIR tissue test to determine the right amount of fertiliser to apply.

YRM70 at harvest  
2016 at RRAPL



Rice variety trials are located across the different regions. Note the differing maturities.





**Out soon:  
The 2016 Rice Edition of the  
IREC Farmers Newsletter.**

Keep watch in your inbox  
for 74 pages full of great information  
and up to date rice research results.

## New re-sowing recommendations

When deciding whether to re-sow or abandon a crop with low plant populations the distribution of plants is often more important than the number of plants. Therefore, a method to determine plant population and distribution when establishment problems occur has been devised:

- In each zone in the field with different plant population levels, obtain ten plant counts using the rice ring (0.2 m<sup>2</sup>).
- From the 10 rings, an average of two plants per ring is needed to meet the 10 plants/m<sup>2</sup> requirement.
- Re-sow the poor establishment areas if:
  - More than 3 rings have only one plant
  - One ring has no plants







## Desiccation or Pre-Harvest Herbicide Application

Some growers are considering a pre-harvest application of a desiccant or herbicide for a more rapid dry down of crops to enable earlier harvest and get a head start on the rice crop.

The application of herbicides late in the season to prevent weeds setting seed or to desiccate crops must be carried out with caution and in line with herbicide label recommendations. It is essential to check if these practices are acceptable to buyers, as in some situations markets have extremely low or even zero tolerance to some pesticide and herbicide residues.

Australia's dry climatic conditions are beneficial in the grain ripening stages, with heat, lower levels of soil moisture & wind being beneficial in the desiccation (drying-out) of crops. Significant weed germination levels are low around harvest time, and hence chemical use is very rarely useful in cereal cropping.

There is a difference between desiccation and pre-harvest herbicide application. True desiccants such as Reglone™ are harvest management tools that rapidly kill above ground growth of crops and weeds. This allows for rapid dry down and an earlier harvest. Desiccants will not give long-term weed control and any late moisture may cause both the weeds and the crop to start to re-grow.

Pre-harvest glyphosate application is generally used for perennial weed control. It can be used as a harvest management tool for dry down but the effects take much longer to appear. For cereals apply when the crop has 30% or less moisture content – the hard dough stage. At this stage, a thumbnail impression will remain on the kernel. This stage is typically 3 to 5 days before you would normally swath.

Uniform dry-down isn't easy. Make sure you use the most representative part of your field when assessing the proper time to spray. Some parts of your field will be mature while other spots may be too green. Be sure to look at the whole field and not just base your judgment on one small area.

Aerial application is important. When label directions are followed, aerial applications can be made with no risk of drift to non-target areas. Minimize your risk for spray drift by taking into account spray droplet size, wind speed, other environmental factors, and application equipment design.



Too early  
May reduce yield

Optimum timing  
for more uniform  
maturity and earlier  
harvest

Too late

- \* Desiccation will not help immature seed to mature.
- \* Bringing the later plants in early will save some time
- \* Glyphosate should not be applied to any crop that is to be used for seed production.

For more information:

GRDC Pre-harvest Herbicide Use fact sheet  
[www.grdc.com.au/GRDC-FS-PreHarvestHerbicide](http://www.grdc.com.au/GRDC-FS-PreHarvestHerbicide)

APVMA PubCRIS database <http://apvma.gov.au/>



# Wet conditions and retaining chemically treated rice water on farm

With the forecast of average to above average rainfall for the rest of this spring it is likely that some chemically treated rice water will need to be drained from crops.

It is important to note that Murrumbidgee Irrigation, Coleambally Irrigation and Murray Irrigation operate under Environmental Protection Authority licences. This means that if compliance to licences is not adhered to strict penalties can be applied.

For all irrigation supply company regions water drained from rice fields will need to be held on farm for at least 28 days from the date of chemical application.

**Murrumbidgee Irrigation Area:** the drainage rules can be found at <http://www.mirrigration.com.au/Customers/Contracts-Rules> or call 02 6962 0200 for more information

**Murray Irrigation Area:** landholders need approval prior to releasing water into the drainage system or back into the supply system. Murray Irrigation requires this information to manage its system. The relevant forms can be found at <http://www.murrayirrigation.com.au/customers/forms/general-forms/> or contact Customer Support on 1300 138 265 for more information.

**Coleambally Irrigation** requires that farmers have on farm reuse system storage capacity that is sufficient to contain any contaminated water for the duration of the withholding period. Their rules prohibit the release of contaminated water into their drainage system, and landowners in any doubt about releasing water should contact Coleambally Irrigation prior to releasing water into the drains. Coleambally Irrigation drainage rules can be found at <http://new.colyirr.com.au/Information/RulesPolicies.aspx> or call 02 6954 4003 for more information

To protect yourself and your communities' interest it is strongly recommended that you contact your irrigation water supply company if you have any concerns regarding holding rice water on farm.



Box Creek in the Murray Valley after the recent rain events