# SunRice Research & Development Update July 2014





## **RICE R&D UPDATE**

- GIS Benefits for growers
- Varieties Latest advances
- Improving efficiency
- Future technology





### GIS

- Stage 1: 66% grower crop surveys
- Stage 2: Target 100% crop surveys, yield data and NDVI availability for all growers
- Stage 3: Add logistics component for full traceability and improved AGS efficiency
- NOW: HELP GROWERS LEARN –
   SunRice GS & RGA extension support



## Farm, paddock and crop on GIS



- 1. Grower enters paddock boundaries
  - Gets printed map of farm and paddocks with labels
  - Gets digital view of farm
  - Provides basis for recording planting details and sprays etc.
- 2. Growers select blocks that will grow rice



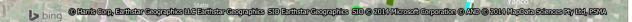
- Grower records crop details of rice plantings using paddock data
  - Get recommendations from agronomists
  - Get NDVI image for rice paddies

Crop I	Details		
	-	Crop Details	· Salestante · January Charles
	9/12/2013	15 4:05 PM 🛊 🔇	Contraction of the second seco
То	<d mm="" yyyy=""></d>	15	
0	Current Crop Rice		
501	VING		
Clas	s	Paddy	1
If Se	eed, Please Specify Generation	-	
Vari	ety Sown	Sherpa	
Date	e Sown	19/10/2013 15 12:00 AM 🛊 🕓	
Sow	ing Rate (kg/ha)	185	
Sow	ing method	Aerial (Pregerminated Seed)	
Hect	ares Re-Sown		
Reso	own Variety		
Last	Resown Date	<d mm="" yyyy=""></d>	
Re-s	owing Rate(kg/ha)		
Hect	ares to be Harvested	8	
Pote	ntial Yield (t/ha)		
Estir	mated Pest Loss (%)		
See	dling Number (per sq/M)		bing
% C	rop with Holes		
% C	rop with Weak/Thin Areas		💌 Pick a paddock 🥢 Draw a point 📌 Draw a line 🔊 Draw an area 🌍
Date	Modified 9/12/2013 3:08:04 F	M	

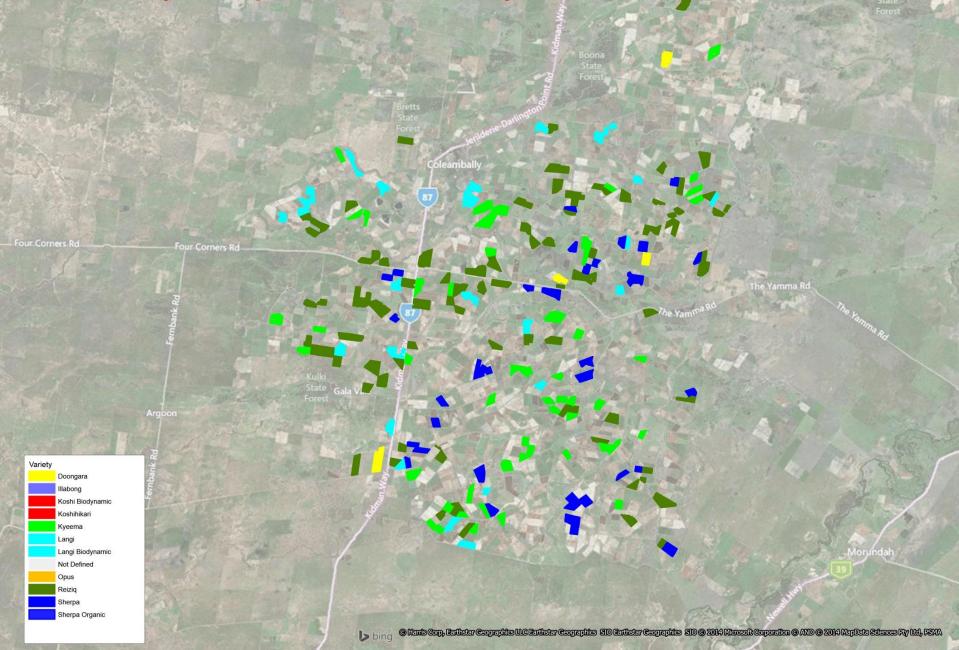
Modified By efondacaro

## Variety Map Murrumbidgee

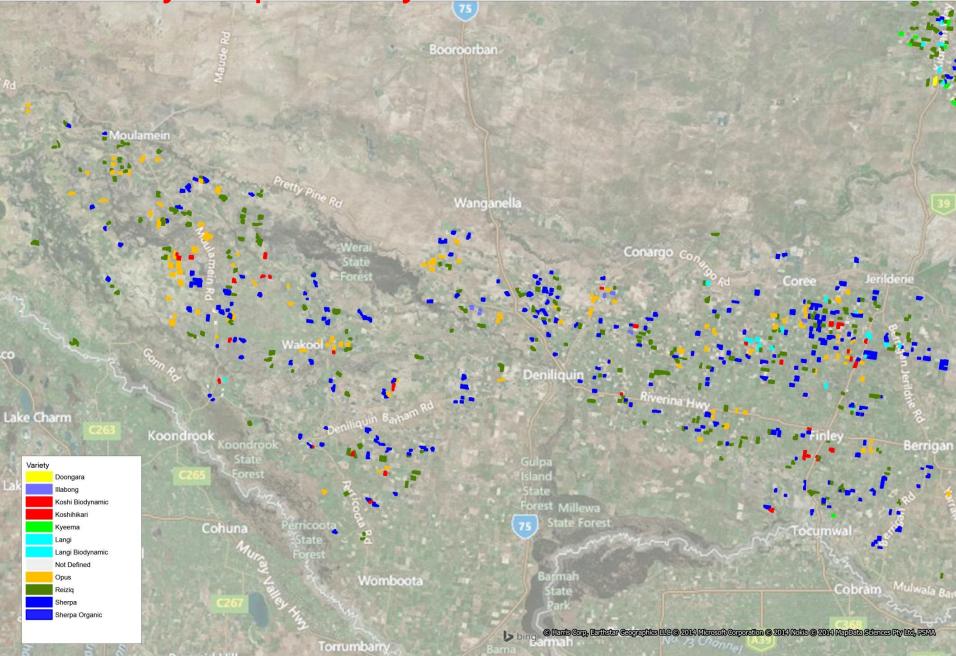


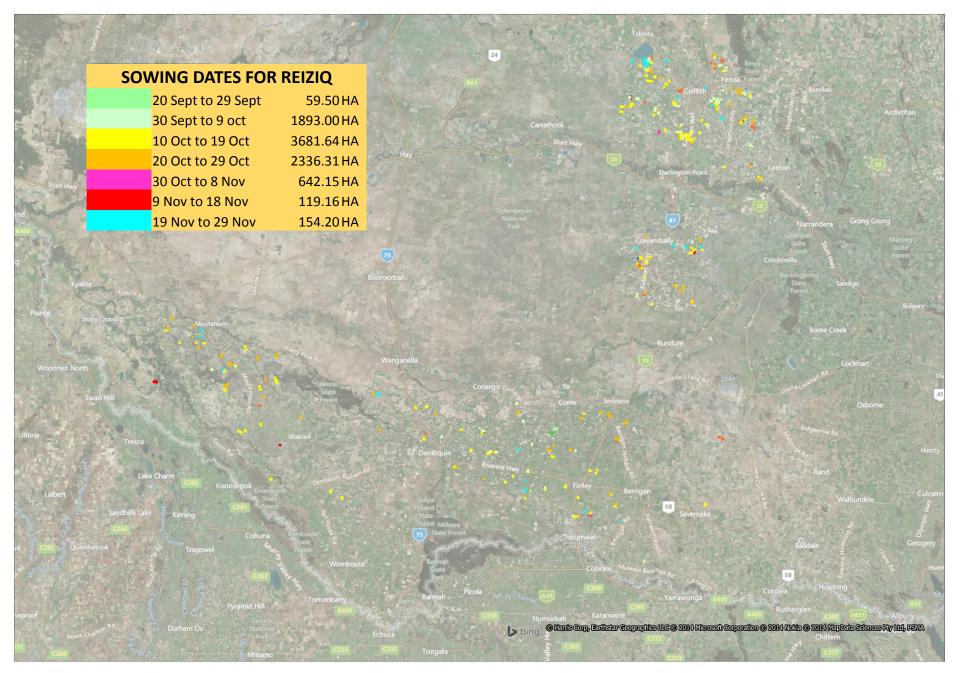


## Variety Map Coleambally



## Variety Map Murray





#### Hectares sown by Variety by Date

## KEY MESSAGE – SOW WITHIN WINDOW FOR VARIETY AND LOCATION

SOW DATES/VARIETY	Doongara	Illabong	Koshihikari	Kyeema	Langi	Opus	Reiziq	Sherpa
21st to 30th September						300.65	59.49	35.36
1st to 10th October			101.69	142.56	137.2	588.35	1893.06	450.66
11th to 20th October	177.04		167.05	698.88	917.25	960.47	3681.64	1351.34
21st to 30th October		92.3	66.44	765.33	669.17	1162.79	2336.31	2681.24
31st October to 9th November		40.62	72.71	115.13	168.81	259.72	642.15	1751.81
10th - 19th November			56.39		123.55		119.16	414.43
20th - 29th November			53.85	29.06	172.33		154.2	79.85





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## **Spray Records**

 Spray Diary will cover legislative requirements for chemical applications

SPRAY D	DIAR	Y										Sun	
Report for period b	etween	01/01/20	014 ar	nd 16/07/2014									
I/We declare that	his diary	is a true	and corr	ect record of chemicals	applied.					Signed		Date	
Farm: 78293	Farm: 7829370 - Rice Research Australia P_L												
Paddock: W11			Vari	ety: Koshi									
Application Date	Area (ha)	Water (I/ha)		Chemical (Registered Product)		Target Pest/Disease		Active Ingredier	nt	Actual Ra Applied	te APVMA		
11/06/2014	41.58	100											
				Aura		Arrowhead, Si	lvertop	Profoxdin	n 200g/I	0.2 l/ha	63432/5-20L/100	08	
				Nufarm Chlorpyrifos 500	)EC	Bloodworm		Chloropy	ifos 500g/l	150 ml/ha	32902/0809		
Strategy : Whole	e Block	Tíme:	Mid morning	Surfactant : Yes	Application Method :	Fixed Wing Aircraft	Wind Speed : 4 - 8	3 knots	<i>Operator</i> : Adam	Power	Temperature C : 22	Comment :	
16/05/2014	41.58	100											
				Barnstorm		Barnyard Gras	S	Cyhalofor	o 285 g/l	1 l/ha	58613/51146		
Strategy : Whole	e Block	Time:	Late Afterno	on Surfactant : Yes	Application Method :	Fixed Wing Aircraft	Wind Speed : 2 - :	3 knots	Operator : Rob C	Crossley	Temperature C : 24	Comment :	





### Future Benefits – NDVI on time



Farm (1)			Start	Area (hi	Name	Variety	Hectare	Date So	Sowing	Hectare	Sowing	Resown	Date La:	Hectare	Yield Es	Estimate	Yield Ad	Prev H
RICE (43)			18/07/2014	17.96	SW1		0.00			0.0	0.0	D		0.00	0.00	0.00	0.00	D
RICE (43)			18/07/2014	6.58	SW3		0.00			0.0	0.0	D		0.00	0.00	0.00	0.00	D
Harvest Operations (0)	E 🖸 🖉 🚳		18/07/2014	33.01	K10		0.00	)		0.0	0.0	þ		0.00	0.00	0.00	0.00	D
			18/07/2014	22.32	К8		0.00	)		0.0	0.0	D		0.00	0.00	0.00	0.00	D
			18/07/2014	25.27	W17		0.00	)		0.0	0.0	þ		0.00	0.00	0.00	0.00	D
	· · · · · · · · · · · · · · · · · · ·		18/07/2014	12.64	EN1		0.00	)		0.0	0.0	D		0.00	0.00	0.00	0.00	D
			18/07/2014	11.03	W16		0.00			0.0	0.0	þ		0.00	0.00	0.00	0.00	D
			18/07/2014	19.17	K13		0.00			0.0	0.0	D		0.00	0.00	0.00	0.00	D
			18/07/2014	14.71	K15		0.00			0.0	0.0	þ		0.00	0.00	0.00	0.00	D
Crop Details (0)	😻 💽 🖉		18/07/2014	6.58	W14		0.00			0.0	0.0	D		0.00	0.00	0.00	0.00	D
		1						·										



### **Benefits to Growers and SunRice**

Benefits To Grower	Benefits To SunRice
<ul> <li>Gets printed map of farm and paddocks</li> <li>Gets digital copy of farm</li> <li>Provides basis for further data recording -planting details and spray dairy etc.</li> <li>Get recommendations from agronomists</li> <li>Get NDVI image for rice paddies</li> <li>Record on the web or phone</li> <li>Reduced data entry</li> <li>Benchmarking Reports</li> <li>Targeted Research</li> <li>Help communication with agronomists</li> <li>Gross Margins</li> <li>Resistance Management</li> </ul>	<ul> <li>Traceability         <ul> <li>Increasingly important in higher value markets</li> </ul> </li> <li>Harvest Management &amp; Logistics         <ul> <li>Yield Estimates</li> <li>Harvest Progress</li> <li>Efficient Site Operations</li> </ul> </li> </ul>

### **Rice Varietal Improvement – What's New**

- YRF209 Fragrance and Agronomic
- Short season Short Grains
  - Double Cropping Option
  - -Agronomic
- Cold Tolerant Reiziq
  - -Improved Yield Stability
  - -Grain Quality

#### Sensory attributes driving purchase intent - YRF209

- Driver analysis

Sun Rice was competitive on Glossiness, Flavour and Sweetness.

Strengt of drive			AUS Jasmine YRF209	Golden Elephant (Thai)	Sun Rice 100% Pure Australian	Supreme (Vietnamese)	
20	1	Chewiness	22	24	12	9	JR
15	2	Taste	52	51	43	31	ТЗВ
11	3	Texture	40	54	42	16	JR
11	4	Appearance	35	21	18	9	ТЗВ
10	5	Glossiness	26	37	35	24	JR
7	6	Flavour strength	34	32	31	27	JR
7	7	Sweetness	31	27	29	22	JR
6	8	Aroma/ Fragrance	51	54	46	40	ТЗВ
	JR	= Just right T3B = Top 3 b	ox score		Best performing b	rand	



Jasmine Rice Cooked Sample

## **RRAPL** – Key attributes





- Continue to improve the farming system
- Develop high
   value varieties
   for specific
   markets
- Use location and provenance to encourage buyers
- Latest technologies to improve efficiencies

