



VICC Irrigation Newsletter

For Mixed Farmers and Croppers in the Irrigation Areas of Northern Victoria and Southern New South Wales.

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Editorial

Welcome to the fifteenth edition of the VICC newsletter. What a year in 2007! The winter season just past, started so well but failed to continue on through the spring. With low allocations in Victoria and no general security allocation many parts of Southern NSW, many irrigation farmers became dryland farmers, either through selling what water they had, or being forced there through lack of irrigation. With crops failing in October many were faced with the decision to cut hay or hope for late rains.

The summer crops are few and far between with rice being at an all time record low area. Just when you think no more can happen, we receive summer rains and localised heavy falls! This edition looks at the climate ahead as well the project results from VICC and the ICF, some outstanding yields indeed!

VICC now has board representation from irrigators from the Murray Valley in Southern NSW, as well as its existing representation from Northern Victoria.

At present there are three NSW farmer representatives on the board in Michael Hughes, Chris Stillard and Leigh Vial, as well as NSW DPI representation in John Fowler and Dave Eksteen. VICC believes that this will further enhance opportunities to provide research and extension in the irrigated cropping and mixed farming sector to both sides of the river.

Our board would encourage farmers with ideas and issues to discuss these with the new board members. We hope we can fulfil our role in bringing relevant information in irrigated agriculture to your farm.

Rob Fisher

2007 VICC Trial Block Summary

Best varieties of Canola yield 5t/ha, Barley 8.4, Wheat 9(12 at Yanco), Fabas 5.7 Oaten Hay 12.6!!

An interesting year to say the least. With only a small amount of irrigation water left for pre-irrigation, we elected to only pre-irrigate where the trials were to be sown. This suited the early sown trials that were sown into ideal moisture and then had follow-up rain. The later sown trials suffered from waterlogging during establishment which meant a couple were abandoned due to poor establishment and others suffered delayed growth. However the rain allowed timely sowing of the rest of the trial block which was treated as dryland and sown to Ventura wheat (a short season wheat chosen for both its yield potential shown in previous trials and its shorter season which could potentially save us an irrigation in the spring). Unfortunately the rain that wouldn't go away in June did so in August and the wheat crop was cut for silage in late September, yielding approximately 4t DM/ha. All trials were irrigated at least twice, starting at the end of August, and the GRDC Irrigated Wheat trial received 4 irrigations to make sure some of the later lines had sufficient moisture to finish. 4 irrigations meant a total water use of 6.25 Ml/ha.

We chose to grow an oaten hay crop in 2006 for both economic and weed control purposes. Both were quite successful and the oats did an excellent job of reducing the seed bank for the 2007 season.

Barley

11 varieties were sown on May 8th. As the crop matured, the local sparrows began to feed on the developing grain, affecting the earlier varieties more than the later ones. The trial averaged 6 t/ha despite the obvious damage to the early varieties. The best performer was Capstan (8.37 t/ha), along with Baudin (7.3 t/ha) and Gairdner (6.7 t/ha).

Canola

A highlight for the year was the canola variety trial. After sowing in late April into perfect conditions, the trial averaged 4.2 t/ha – our best ever average. I would put this down to a combination of factors - excellent and early establishment, good weed and irrigation management and flowering that started earlier than usual and continued on for up to 5 weeks due to a lack of hot and windy days. Hyola 75 averaged 5.1 t/ha and our long term performer AV Sapphire produced 4.5 t/ha. Unfortunately these two varieties are not available in 2008. Once again the TT's were placed in the lower performers.

Faba Beans

2007 didn't see a repeat of the Bean Leaf Roll virus that wiped the 2006 trial out. Sown May 9th, the trial had little ascochyta or chocolate spot. Yields averaged 5 t/ha, with Farah (5.7 t/ha) and Fiesta (5.6 t/ha) the best of the commercial varieties.

Oaten Hay

Sown May 28th, cutting started on October 16th and continued until November 5th. Trial average was down a little to 11.2 t/ha. Best varieties were Targa (12.6 t/ha) and Eurabbie (12 t/ha).

Wheat Variety

A total of 27 varieties were sown in two trials. The main trial consisted of predominantly mid to late season varieties was sown on May 9th. Stripe rust was first noticed in Chara on September 7th, and many varieties had some degree of stripe rust by October 17th. There have been two new stripe rust types become more prevalent in 2007. This has meant that some of the previously resistant varieties are no longer as resistant eg Ventura which is resistant to the "WA" type but moderately susceptible to the new Yr 17 or "Pugsley" type.

McKeller, a red winter wheat topped the trial at 9 t/ha, with the trial averaging 6.7 t/ha. Best bread wheats were Carinya and Wedgetail (7 t/ha).

GRDC Irrigated Wheat Evaluation

The first year of this project, the Kerang site is a smaller version of two sites sown in NSW. The Kerang trial had 160 wheat lines, which includes commercially available varieties and lines submitted by the breeding companies. Although the criteria for entry into the trial was for bread wheats that would flower in the last week of September from a first week of May sowing, there was a range of maturities from short to very late and feed types.

Initial yield data shows many of the currently available varieties outperformed many of the breeder's lines, with yields over 7 t/ha. There are a few lines that seem to have some potential, yielding above 9t/ha. Similar lines at the Yanco site had yields up to 12 t/ha. This trial will be continued in 2008.

A comprehensive summary of all the trials from 2007 at the VICC Irrigated Trial Block at Kerang will be posted out to all VICC members in late February.

What's New?

Feb 12-13	GRDC Adviser Update Southern Region	Wagga Wagga NSW	Jon Lamb 08 8362 5417
Feb 19-20	GRDC Adviser Update Southern Region	Ballarat VIC	Jon Lamb 08 8362 5417

Weather Past, Present and Future

La Nina to continue?

Dale Grey

DPI Cobram 0358 710 600

2007 will go down in history as a medium strength, late developing La Niña. Frustrating, because little fell in spring when the La Niña was in the throws of finally getting its act together. The SOI eventually climbed into strongly positive territory in November and now we are spraying summer weeds because November and December delivered some rain and we have also had some small step ups in irrigation allocation.

We must keep in mind the fact that not all La Niña's are wet. In fact at most locations the chances of decile 8, 9 and 10 rainfalls never improve above 50%. This is often coupled with a 40% chance of decile 4-7 rain and a 10% chance of decile 1-3. It is important to remember we are talking about probability and not certainty, this year we spun up a late developing La Niña that delivered rain when we didn't want it.

2007 was also confounded by another strange occurrence. This was the proliferation of cold ocean surface water from Brisbane northwards to Broome (an Indian Ocean Dipole +ve event) during the June-September period. This is generally not favourable to Victorian rainfall. While this in itself is not so strange (it happened last year as well) it has never really happened in a La Niña event during our historic record. This left the people making predictions based on historic data scratching their heads. (1967 was the most similar year but it was a questionable La Niña; for the record 1968 was an average growing season in most areas). The people making predictions based on the coupled computer models did observe these events happening and were advising that a wet spring was unlikely. This was why the National Climate Centre never gave a prediction of wetter than average conditions at any time during the season, despite a La Niña building.

So what do the gurus say about 2008? It must be remembered that for the membership area, most oceanic signals at this time give very poor predictability.

The Pacific Ocean remains cold but the Indian Ocean is in the process of cooling down to the north of Australia, this has happened for the last two Januaries. Warm water remains off most of Queensland, which was the source of last weeks rain.

The ECMWF (Europe) predicts chances of greater rainfall over February but no signal either way for autumn. They are predicting the warm water around northern Australia to dissipate in February with slightly cooler water developing to the NW of Australia for autumn.

The UK Met Office thinks that throughout Jan-May, wetter than average conditions are more likely, warm water around Aust will start to dissipate in February.

IRI (US, predicted a poorer spring in 2007) show above average chances of rain during Feb, but there is no signal either way during autumn.

BoM (Aust) A 40-45 % chance of exceeding the median Jan – Mar but there is weak association between current ocean conditions and Jan – Mar rainfall

JAMSTEC (Japan, predicted an IOD+ last year) is predicting that neutral conditions off Sumatra will cool in autumn and then progressively warm to neutral conditions for

spring. At this stage they are not predicting an IOD+ or - for the coming spring. Their experimental rainfall predictions are for slightly below average rainfall for Mar-May and then turning average for June-Aug.

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All of the world's six major computer models are predicting the cool water La Niña in the Pacific Ocean to hang around until the end of April, 2/5 models think it may stay cool till June and 3/5 think it will have reverted back to neutral.

DAF WA Analogues

David Stephens and his team in WA think the most likely thing to happen this year is for La Niña or borderline La Niña conditions to continue through 2008. They think there is a low probability (3%) of an El Niño developing from situations similar to now. Their data suggests that the current La Nina may have reached its peak. The analogue years they have chosen generally show slight warming of the current cool conditions in the Pacific, re-cooling in spring.

The following years are suggested as having most similar conditions to December

Moulamein

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Apr -Oct	Decl
2000*	11	53	15	47	40	25	33	17	39	57	43	3	258	6
1951	3	24	0	42	68	61	36	39	15	26	0	9	287	8
1955*	12	86	24	0	42	33	57	58	49	27	17	12	266	8
1996*	35	28	17	15	7	41	79	52	40	21	20	7	255	5
1962	57	0	9	2	52	13	27	33	13	13	11	43	153	2
												avg	227	

Kerang

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Apr -Oct	Decl
2000*	14	23	16	38	42	24	23	10	38	39	93	18	214	4
1951	23	63	1	12	53	92	40	44	5	28	10	3	274	7
1955*	0	58	35	2	53	51	50	52	56	42	23	9	306	8
1996*	39	23	22	17	6	48	63	54	48	23	10	6	259	6
1962	64	4	28	2	44	23	43	43	33	22	11	47	210	4
												avg	244	

Deniliquin

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Apr -Oct	Decl
2000*	6	41	13	26	39	25	23	32	62	89	92	3	296	8
1951	15	80	1	24	72	76	47	45	21	44	10	10	329	9
1955*	5	63	28	3	65	50	54	53	47	76	19	32	348	9
1996*	22	30	16	21	19	55	55	41	37	32	33	18	260	6
1962	10	2	1	26	12	58	24	25	41	33	19	20	212	4
												avg	254	

Cobram

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Apr -Oct	Decl
2000 *	5	32	29	38	54	40	41	71	57	73	69	3	374	8
1951	24	93	0	25	66	91	60	58	25	48	20	18	373	8
1955 *	10	160	33	5	62	54	55	59	71	60	33	34	366	8
1996 *	64	36	17	27	22	77	65	50	45	33	43	7	319	6
1962	10 3	0	37	20	68	49	19	52	46	33	27	46	287	5
												avg	299	

*La Niña

Double Cropping Project

Big visual differences with summer cropping sowing dates!

The winter phase of the lifting irrigated cropping profitability and WUE (double cropping) GRDC funded project has been completed with the canola, oaten hay and shaftal clover being harvested on the 18th of October. This allowed the timely sowing of the maize, sorghum and soybeans on the 9th of November and all crop types were irrigated up. Yields were slightly lower than expected with 7.7 t/ha (oats) and 4.7 t/ha of clover hay and commercial decisions on spring irrigations would generally meant water temporarily traded rather than applied to crop. For trial purposes general farmer practise saw these crops irrigated twice during the spring and after the crops were harvested soil tests displayed 60-63mm of total moisture in the profile down to 60 cm.

The grain crops of wheat and barley were harvested on the 3rd of December. Soil test showed that there was 56mm of total moisture in the profile at this time down to 60 cm. 18mm of rain had fallen on the site since the time when the first soil tests were taken with the early crops. The earlier sown crop therefore had slightly more moisture in the profile at sowing and went in at the optimum time. Yield differences at harvest will determine the penalties for sowing past optimum times on the summer crops. Wheat and barley yields were 5 and 4.5 t/ha with 2 spring irrigations. These yields were affected by bird damage and lower than expected despite all attempts to deter them.

Large visual differences can currently been seen between the sowing dates and the crop types and if any of the VICC members are interested in viewing or finding more out about the trial contact Dale Boyd at the Echuca DPI office on 54820439. A field day is also planned at the site, if you would like further details contact Dale.