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Diary Note

Waikerie Field Day Celebrating A Decade of Difference

Tuesday 1st September 2009

Put this date in the diary for what promises to be the best Waikerie Field Day yet. The MSF SA State Reference Committee is going all out to make sure that the 10th Waikerie Field Day is celebrated in style.

More details in coming newsletters as speakers and topics are confirmed.

If you have any ideas for this event, would like to help organise or sponsor the 2009 10th Anniversary Waikerie Field Day, contact Nicole Dimos on 0427 219 103.

From The Boardroom

Good-day Members,

By the time you read this no doubt you've either finished sowing or still going hard at it.

What a good even break most farmers had in April, however the follow-up showers in May haven't been too plentiful. We can just hope for a wet winter.

In my travels through the Mallee in recent times, especially in Victoria, I can see the big difference that stubble-retention has made. Early sown crops have jumped out of the ground and even with the very hot and dry, windy summer, the paddocks look in magnificent condition. What a

great change there's been in farming systems and practices in recent years!

MSF is changing too. This week we have advertised for an agronomic services provider to oversee trials that you the farmers have requested, require and expect so in the near future expect to hear about new projects commencing. Also, applications for the Executive Manager position will be closing on 25th May. We'll keep you posted.

Jim Maynard
Chairman



Volume 1, Issue 2, May 2009

Sustainability Sustainability Snapshots Snapshots

Medic Alert!

- Test your medic seed germination if it has an out of date germination certificate or wasn't stored in an optimum condition.
 - Use seeds with greater than 80% germination.
 - Seed quality affects vigour as well as germination. The correct plant density is an important factor in maximising yield of any crop/pasture.
- Seed quality and germination varies between varieties and between years so needs to be checked prior to seeding. Ideally only seeds with greater than 80% germination should be used. Assume that only 80% of normal germinated and emerged seeds will establish under field conditions due to temperature, moisture, soil type, sowing depth, insects and disease that will all affect survival. *cont page 3*

In The Paddock



A CSIRO capital grant has enabled the MSF team to get with the times and rebuild the planter with the latest in narrow points, wide rows and press wheels towed by a new Case tractor.

Expression of Interest New Agronomy Services for MSF

Mallee Sustainable Farming Inc. (MSF) is seeking Expressions of Interest from suitably qualified individuals or organisations to provide agronomy services to the organisation. MSF is seeking agronomic technical expertise to undertake specific agronomic research and development projects and to develop a business case that identifies opportunities for agronomic Research, Development and Extension activities into the future in a tri state region. It is anticipated that this commitment will initially require up to approximately 20 hours per week, potentially increasing up to 40 hours per week as the project develops. Interested individuals or organisations are encouraged to obtain a Project Brief from MSF by telephoning (03) 5021 9100 or emailing admin@msfp.org.au. Responses to this EOI are preferred via email to admin@msfp.org.au or should be clearly marked "Agronomy Services Application" and mailed to Mallee Sustainable Farming, PO Box 5093 Mildura Victoria 3502.

Applications close 5pm Friday 5th June 2009

www.msfp.org.au

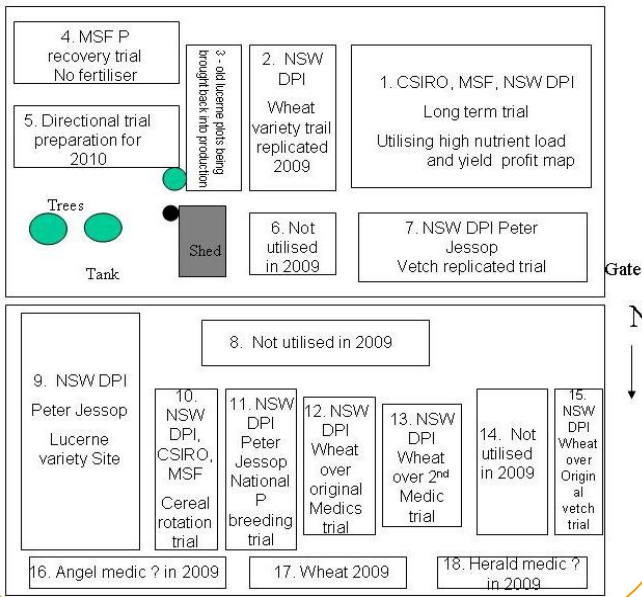
MSF Trials—Kerribee



MSF and its many collaborative partners use the Kerribee Core Site for a number of trials every year. Many of the findings from these trials will be discussed at the Kerribee Field Walk on Thursday August 28th, 2009. Here are some examples of the work being carried out at Kerribee this year:

- On 1st May, the NSW DPI planted out the long term trial site with wheat over all treatments except those due to be in fallow.
- The trials this year will examine the high levels of nutrients stored over these series of dry years to ensure the best economic return from the fertiliser dollar.
- Anthony Whitbread (CSIRO) will use Yield Prophet to carry out 4 scenarios.
- Peter Jessop (NSW DPI) will continue with lucerne variety trials, vetch replicated trial and the national P breeding trial.
- The Plant P recovery trial was also planted on 1st May which will enable a better understanding of the behaviour of P in dry years in low rainfall cropping systems.
- Dr Sean Mason (University of Adelaide) will test the soils with his new P test, diffusive gradient in thin film (DGT), plus Colwel P. These soils will also be independently analysed by CSBP for Colwel P, P buffering and Olsen P.
- Grant Gibbins from Agrivision will be working with James Maynard at Kerribee to conduct a time of sowing trial. The trial started a week ago with the second sowing due toward the end of the month.
- Another trial planted on Monday 4th May poses the question: Is there a yield benefit to rotating cultivars rather than using the same cultivar of continuous wheat?

MSF KERRIEBE STATION TRIAL SITE 2009 PLAN



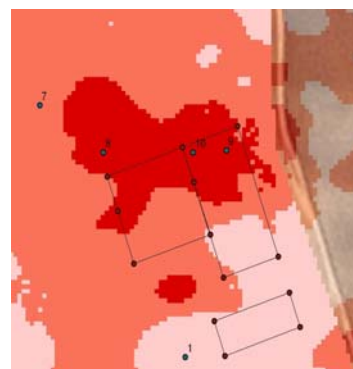
Graeme McIntosh
NSW DPI Dareton

MSF Trials — Karoonda and Waikerie

Over the past 10 years, a major aim of the GRDC funded work done by MSF and its partners has been to develop and demonstrate high water use efficiency intensive cropping systems. This has led to large increases in the adoption of more intensive cereal production. There still remain many opportunities to improve average whole-farm water use efficiency (WUE) across the Mallee region. After several seasons of using WUE intensive cropping systems, some challenges have emerged. These include grass weed problems, disease, high fertiliser costs, the need to reduce exposure to downside risk. All these factors pose a threat to current levels of WUE. It is also important to recognise the variability in Mallee farming systems. This variability includes: (i) managing the variability in Mallee soils in a way that improves and sustains whole-farm water use efficiency; (ii) managing variability in seasons and the asso-

ciated risk using water use-efficient options; and (iii) recognizing the diversity in farmer preference for different farming systems, including those who choose not to pursue higher-risk high-input cropping programs.

In anticipation of a new GRDC funded project a new on-farm field program has been initiated at Karoonda to demonstrate and measure the water use efficiency, productivity and riskiness of: (i) a range of continuous cereal systems and their management (decisions about input levels, management and timing); and (ii) potential break crop systems; across soils of differing potentials. The past couple of weeks has seen the CSIRO (Llewellyn, Whitbread, Davoren and Mowat) and Rural Solutions SA (Chris McDonough and Richard Saunders) teams establish a range of field trials near Karoonda and Waikerie with the kind cooperation of the Loller family and Allan Buckley. Using some of the technologies



EM38 mapping and soil testing are used to locate the new 'Continuous Systems for Soils' trial sites.

tested in the 'Reaping Rewards' project, EM38 and soil testing has been employed to locate the new 'Continuous Systems for Soils' trials and break crop trials across a dune-swale (see diagram). This work will be showcased during the field days in September.

Anthony Whitbread
CSIRO Adelaide

Sustainability Snapshots

Medic Alert ... cont from page 1



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Mallee Growing Season Rainfall

The table below show rainfall figures for 1st April to 18th May, 2009.

Balranald	22.1 mm
Hay	33.4 mm
Hopetoun	36.6 mm
Karoonda	38.8 mm
Lake Victoria	21.9 mm
Lameroo	52.0 mm
Loxton	24.4 mm
Mildura	23.0 mm
Murray Bridge	47.7 mm
Ouyen	25.1 mm
Pooncarie	27.6 mm
Renmark	37.4 mm
Swan Hill	29.8 mm
Walpeup	33.6 mm

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Germination tests can be done at home but need to be done correctly, as vigour can affect emergence. Good germination percentage, but poor vigour will result in poor emergence. Germination of some crop and pasture varieties has been an issue in the Mallee in the past few years and needs consideration in current high input and low income dry years. As a risk management strategy, seed germination tests are essential.

Similar to Flagship barley last year, medic seed germination appears lower than that promised on its certificate. In one instance, a medic seed from 2006 harvest that was certified with 90% germination came out only 30% positive on germination test and 15% actual emergence on the trial site. In such cases the variety shouldn't be blamed. There are other issues such as seed age, storage conditions, seasonal conditions, mechani-

cal damage, chemical reaction and reliability of seed source that all contribute to seed viability. Once you find out your seed has low viability there is not much you can do about it other than increase your seeding rate accordingly.



The poorly germinated medic on the right was certified at 90% but only achieved 15% actual emergence.

Many medic seeds come pre-coated with inoculants. This eliminates the need to inoculate the seed but also reduces the number of seeds per kg with a bag of coated seed typically being 30% coating. If the medic seed does not come pre-inoculated it is cheap insurance to coat it with peat based inoculants prior to sowing.

When doing so, ensure you have the correct inoculants; the AM strain for barrel and burr medics and the AL strain for strand medics and lucerne.

Medhi Zaboli
 Rural Solutions SA Murray Bridge

Mallee Challenge Paddocks

Many deep soil, topsoil and root disease tests have been carried out on SA Mallee trials and farmer "Challenge" paddocks. Some general consistent messages have been coming through and are as follows:

Rhizoctonia inoculum levels have been high in almost every paddock tested, irrespective of soil type or farming system. How this may convert into paddock problems may depend on many factors, but farmers are encouraged to not neglect good rhizoctonia management practices this season. Heavier or loamy soil profiles

were in large moisture deficit prior to opening rainfall. Deep soil tests down to 70cm, taking into account soil texture and subsoil constraints revealed that sandy soils had up to 10mm less water than the crop lower limit, while some loam and clay profiles had dried out to 35mm less than the crop lower limits. This means that while we have generally had good seeding moisture in the topsoil, we still need an awful lot more to really sustain good winter growth on these soil types, and in many cases the rainfall that soaked through to the subsoil may only bring them

up toward levels of having plant available water. Soil surface P levels have generally been good. The majority of topsoil tests have been coming in at above 20ppm, which is probably a result of the run of poor seasons and low P export in yield. While this may well prove positive for those who have had to reduce their phosphorus inputs, it must be stressed that farms, paddocks and soil types can be very different, and there is no substitute for testing your own paddocks.

Chris McDonough
 Rural Solution SA Loxton

The Autumn issue of *Agronomy Matters* is now available at
www.msfp.org.au/docs/media_213.pdf