



Opportunities through innovation

First biochar results show promise

PAUL Blackwell has been working on a Grains Research and Development Corporation (GRDC) project which is a collaborative project between CSIRO, University of WA and Department of Agriculture and Food WA (DAFWA).

The project investigates biochar and responses to fertiliser applications on two sites; Carl Forward's property Springy Creek at Irwin and Graeme Royce's property at Moonyoonooka.

The Mingenew-Irwin Group (MIG) has recently become involved with work at the site, teaming up with Dr Blackwell to run a biochar and biology bus tour in September 2010 that visited the sites and provided participants with information on the trials to date and delved into the world of mycorrhizal fungi.

During harvest in late 2010, Jane, Donna and Kathryn from MIG, with Carl Forward and Rodney Johns, helped with the harvesting of the plots using the highly innovative Happy Reaper, a home-made harvester that highlighted just what can be done with a Bunnings wheelbarrow and a hedge trimmer.

Like some previous trials on poor soils and in dry years, biochars have shown they can increase yield, especially in

conjunction with low rates of starter fertiliser.

The economic interpretation of the effects will rely on what price such material can be supplied or made for and the long term effects of these benefits.

This is a rough preliminary overview of the results of the trial.

The yields in the dry year of 2010 at Springy creek (300 mm) with a dry finish are summarised in the graph.

The site was on poor sand over gravel at about 500 mm, a good clover stand in 2009 and a Colwell P of about 10ppm.

The biochars were incorporated by deep banding with a cone seeder in April with four passes in all treatments.

An extra treatment was direct sown at 25kg/ha of DAP to see the cultivation effect.

The crop had four rates of DAP starter fertiliser alone or with different rates of biochar and types of biochar.

After sowing there was no N applied but a dose of K sulphate at tillering. Wyalkatchem was sown at 75kg/ha in the second week in June.

In the chart, nil is DAP alone, high W is 1.5t/ha wheat chaff biochar (plot rate), low W is 0.5t/ha wheat chaff biochar, high C is 1.5t/ha chicken

manure biochar, low C is 0.5t/ha chicken manure biochar.

DD is direct drilled without the cultivation of biochar incorporation and C is a single patch of crop from between the blocks where soil was excavated for lysimeter work and loamy soil replaced from nearby.

The crop looked promising in the spring but had 50 per cent screenings at harvest.

The higher rate of chicken manure biochar (about 2pc N, 1.4pc K 1.2pc P) seemed to generally improve yield at all levels of DAP.

The wheat chaff biochar (about 2pc N, 3.4pc K 0.4pc P) seemed to mainly benefit yield at low P levels (<50 kg/ha DAP).

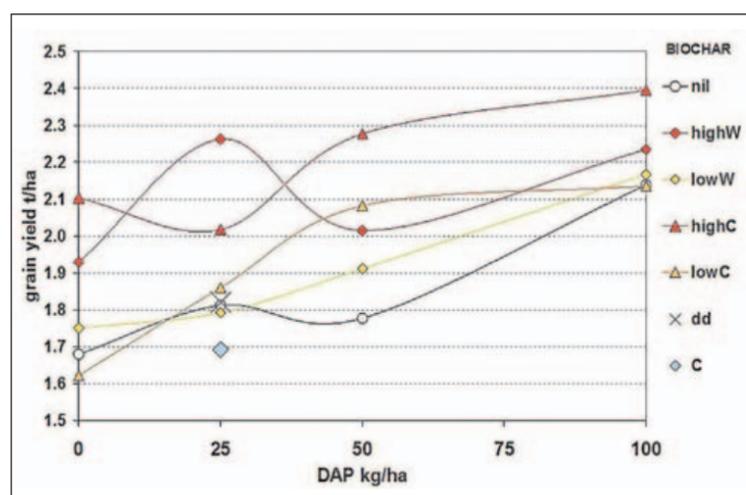
Beneficial effects from wheat chaff biochar at low levels of applied DAP may be associated with increased symbiotic soil fungal activity by mycorrhiza, enhanced by the microhabitat provided in the pores of the biochar.

The results are still being analysed to try and understand the effects better, as well as the levels of confidence in the differences between mean values.

While DAFWA is no longer involved in biochar research in grains, MIG is hoping to source other funds to keep the trial at Springy Creek going.



□ Rodney Johns using the Happy Reaper.



'Bright and Beautiful' dinner



ABOUT 120 people attended the Mingeneew Irwin Group Biennial Dinner on Saturday, February 19.

With a Bright and Beautiful theme, The Grange was decorated with the colours of the rainbow.

This ambience reflected the positive feeling after the day's rain.

The future of the Mingeneew Irwin Group is looking bright and after a dry year in 2010 the arrival of rain hints that 2011 will be a better one.

The Bright and Beautiful theme was reflected in the dress of those attending the dinner and in the pre-dinner entertainment.

The Gypsy Soul Circus accompanied by Rhythmic Didge put on a dazzling fire display.

The guests watched in awe as the dancers twirled and ate fire to the rhythm of tribal drums and didgeridoo.

The highlight of the evening was Bruno Valenti, who in keeping with the theme, sported a canary-yellow suit.

Dr Valenti's attire set the mood for a very engaging and entertaining presenta-

tion on sport and business motivation.

Dr Valenti, a keen cyclist, is a sports psychologist and lectures in leadership to the sports and business communities.

He motivates people to make the best of the hard times and to celebrate their successes.

His wit and humour focused on looking at the hard times as challenges.

Farmers, he said, are patient, and patience is valuable if you are waiting for crops to grow.

Dr Valenti reinforced the idea that groups such as MIG allowed farmers to work as a team and this helped individuals enrich their lives and businesses.

Guests danced the night away to the sounds of the Blue Bone Gropers band, who sang till late.

MIG was fortunate to receive funding from the Irwin Shire and DAFWA Social Support Services Grants for the event.

As members of MIG look toward the year ahead they will reflect on the event held at The Grange and remember their achievements can be counted in more than one way.

MIG 2010 trials review popular as varieties' performance rated

THE Mingenew-Irwin Group Trials Review proved to be a popular event once again this year, with about 45 members, sponsors and agribusiness supporters coming along to hear the results of the trials undertaken in 2010.

Past wheat varieties were discussed and it gave everyone some great perspectives on how far varieties had come over the years.

Wheat variety trials varied in 2010, with the season playing a large role in success of varieties on different soil types.

Wyalkatchem and Mace were the stand out varieties in the farmer demonstration trials but in some areas Magenta and King Rock also stood out as top performers.

The lupin variety trials created interest amongst growers, with the dominant lupin variety grown, Mandelup, showing evidence of pod shattering when harvested late.

It was promising to hear the new lupin varieties in the pipeline had resistance to shattering.

Other trials discussed included herbicide trials such as Bayer's Sakura, controlling blue lupins in white lupins, canola varieties, radish control in lupins, summer sown pasture trial and grazing cereals trial.

Throughout the presentations members discussed what they found useful, indicated which trials need to be continued and any new ideas that needed to be looked at in 2010.

This information will be used to guide the MIG R&D committee on the trials and demonstrations in 2011.



□ MIG members discuss results of the 2010 MIG Trials Program

Those MIG members who did not attend the trials review will be receiving the Highlights of Farming Systems results book in the next couple of weeks.

The next event on the MIG calendar is the Crop Updates, which will again be held in Port Denison at the Sea Rescue building on March 3, 2011.

Speakers will include Nuffield Scholar Brendon Tierney, Matt Davey from Kalyx Agriculture, who will be focusing on the canola trials undertaken last year, and Fiona Evans looking at the

following season's forecast.

Numerous topics will be covered in the interactive concurrent sessions including fertiliser strategies, biosecurity, precision agriculture adoption, spader and mouldboard plough work, succession planning and many more. The day will conclude with a commodity outlook from Rabobank and a guest speaker from Victoria discussing the issues farmers have faced over the last decade with references to drought and the more recent floods.

MIG events calendar 2011

Event	Date	Location
MIG Crop Updates	March 3	Port Denison
Forage Shrub Forum	March 10	Mingenew
Red Card for the Red Fox	March 25	Mingenew/Irwin district
Biochar and Biology Forum	April 14	Dongara/Mingenew