

A Sustainable Dryland Community Achieved Through Proactive Research on Effective Management of the Soil Resource (Liebe Group Soil Health Project)

Aim: To establish the potential to increase wheat yield on acid sands at East Maya.

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Company: Liebe Group

Farmer: Colin McGregor
Location: East Maya



Background: This trial investigated whether production can be pushed higher on this poor yielding acidic sandpl...her fertiliser rates at seeding. Two higher rates of fertiliser were compared with Colin's normal DAP/urea mix.

Trial Details:

Plot size and replication	Bar width x 200 m, 3 replicates, randomised
Soil type	Deep acidic sand
Sowing date	26 th May 2003
Conditions at sowing	Moist
Machinery	Concord bar
Seeding rate	50 kg/ha of Arrino
Fertiliser	Fertiliser treatments at seeding = 75 kg/ha mix (50 kg/ha DAP and 25 kg/ha Urea); 100 kg/ha (67 kg/ha DAP and 33 kg/ha Urea); 150 kg/ha (100 kg/ha DAP and 50 kg/ha Urea); no post N.
Herbicides and Insecticides	0.7 L/ha Roundup, 0.3 L/ha Ester & 1.5 L/ha Treflan, 0.5 L/ha Real
Paddock History	2002 = Pasture, 2001 = Pasture.

Results:

Table 1: Yield and protein values for each of the fertiliser

Fert	Yield	Protein
75	1.77	12.2
100	1.81	12.9
150	1.84	13.4
lsd (5%)=0.23		

There is no significant difference between yield in the fertiliser treatments, therefore the extra cost in fertiliser was not warranted on this soil type for season 2003. As expected the protein increased with fertiliser applied. As part of another trial, adding another 55 kg/ha urea further increased protein to 14.7%.

Summary:

- There was no significant yield increase by applying extra fertiliser at seeding on this particular acidic sand for season 2003.
- Protein increased with fertiliser application.