

AG developments with Coomandook Agricultural Bureau

Natural Resources SA Murray-Darling Basin (Natural Resources SAMDB) through the Sustainable Farming program has been supporting the Coomandook Agricultural Bureau (the Bureau) with developing and establishing tools and knowledge to assist the regions landholders in soil management activities.

The Bureau expressed interest in gaining a better understanding of the regions soils. In conjunction with the Sustainable Farming program four projects were developed, to provide the Bureau with an understanding of the soil constraints, limitations and the impacts on productivity and profitability.

What has been developed?

The Bureau and the Sustainable Farming program undertook activities to build the knowledge around the regions harsh and challenging soils. Outcomes of this partnership has seen;

- The installation of four soil moisture probes at two different sites linked to the Natural Resources SAMDB regional soil moisture probe network.
- Soil characterisation on four prominent soil types of the district.
- Establishment of an automatic weather station linked to Natural Resources SAMDB regional weather station network.
- Development of a compendium of past and present agricultural trial and research works.

Each development has gathered and will continue to collect information, which long term, will aid decision making amongst the regions farmers.

Soil Moisture Probes

The benefits of better understanding soil moisture content in Mallee cropping systems is slowly being unravelled with help from the Natural Resources SAMDB regional soil moisture probe network. Knowledge of soil moisture can aid decision making amongst the regions landholders such as, in season fertiliser requirements, crop choice and sowing date. Currently the network consists of eight sites in the Mallee, with sites at Coomandook, Moorlands and Lameroo established this year. Each site provides soil moisture content and rainfall information which can be viewed as a graph. The information is available on the Adcon Telemetry website, <http://aqualab-data.dyndns.info/secure/common/main.vm>. Login and navigation instructions are available from Natural Resources SAMDB.

Soil Characterisation

The Bureau feel the regional soils have more ability and potential to produce higher yielding crops, and one of the key priorities is to learn more about their individual soil. Natural Resources SAMDB has partnered with the Bureau to investigate four of the regions prominent soil types. Four soil pits were dug at two sites in February 2015 with a field day held in early April. Participants were able to visually see the soil profile and soil horizons with which they farm. Advice was provided to the group from Rural Solutions SA's soil and land management consultant Rebecca Tonkin on the key production factors involved with each pit. The Bureau will receive information from the testing carried out, on how future research could help overcome the limitations and barriers in farming productivity.

Automatic Weather Station

Natural Resources SAMDB regional weather station network has been expanded. A new weather station situated approximately five kilometres south-west of the Sherlock township will be installed June 2015. It will provide site specific weather and climate information at hourly intervals and be available to the public through Natural Resources SAMDB web page; <http://www.naturalresources.sa.gov.au/samurraydarlingbasin/home>. Click the 'Weatherstation' link on the right hand side of the home page, will provide access to the data. Weather parameters such as temperature, wind speed averages and directions, delta T, humidity, rainfall, and many others are visible. This gives landholders access to key climate conditions which can assist farming operations and decision making. There has been an upgrade of the weather station at Wellington and installation of a new unit near Cambrai. This will take the total number of weather



stations on the network to 34 sites once installation has been completed. The expansion links landholders to future developments such as 15 minute updates of current weather, and smart phone and tablet weather accessibility provided by Natural Resources SAMDB.

Compendium of Trial Results

The Coorong Tatiara Local Action Planning Association (CTLAP) has received funding from Natural Resources SAMDB to produce a compendium of past and present agricultural trials and works conducted within the Bureau's limits. This will assist the Bureau gain access and ownership of historical agricultural work. While also providing information aimed at increasing efficiencies and profitability for the regions landholders. The CTLAP have linked with agricultural consultants, Felicity Turner and Tanja Morgan to support the production of the resource. It will provide a summary and results, along with a link where further information can be found for each project. Provisions have been made so that this resource can be electronically available on a database which holds similar project results. This will help the Bureau build on previous projects through links with similar farming systems Australia wide.

Where can I get more information?

For more information or for regular updates, contact Natural Resources Centre, Berri on 08 8580 1800 or email the Project Officer Sustainable Farming Mark May on mark.may@sa.gov.au.

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