MURRAY GREY Technical

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INFORMATION FOR MURRAY GREY SOCIETY MEMBERS

Sources of climate and weather information

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As agriculturalists we have rapidly moved from having too little climate and weather information to a problem of information dazzle. Links provided here will readily source relevant information. The challenge in using the information is to understand the limits of prediction. It is important that scientists are clear about the uncertainty in the forecasts and that farmers and advisers use the forecasts in a risk management framework.

Access to short term weather forecasts

The major source of weather forecasts is the free to air media, in most cases with information supplied from the Bureau of meteorology. Many farmers are using Weather 21 on pay TV as a sources of information. Increasing numbers of farmers are using the internet to get weather forecasts. The following are some of the most relevant sites with comments courtesy of NSW Agriculture, Tamworth.

· *Bureau of Meteorology 4 day forecast*

Note: The hashed areas only indicate a chance of rain, not an expectation.

http://www.bom.gov.au/products/IDG00V56.shtml The Bureau of Meteorology forecast information is available in text at http://www.bom.gov.au/weather/nsw/forecasts.shtml. The notes on the weather are particularly helpful to interpret the synoptic events.

· *The Farmshed weather forecast*

Provided by The Weather Company (as seen on AUSTAR Weather 21) this can be viewed for up to 7 days out. To activate the forecast you need to select a day from the Synoptic/rainfall probability dropdown list. Masking of the map is in three levels, indicating the strength of the chance of rain but providing no indication of the amount.

http://www.thefarmshed.com.au/weather

· *IGES COLA forecast for Australia*

Produced by the Centre for Ocean - Land - Atmosphere studies in the USA. This indicates where and the amount of rain that could fall in Australia in each of two five day blocks. Forecast are updated daily and changes indicated in the day 6-10 block should be monitored for developments as information is updated.

http://grads.iges.org/pix/prec7.html

The same model can be examined for each of the next 7 days individually http://grads.iges.org/pix/aus.vv.html

· *Central & Southern Tablelands weather*

This site contains links to a large number of both short and long term forecasts useful Australia wide. http://members.ozemail.com.au/~sjhop/c&stw.html

There are a range of weather forecasts and base information available on Poll Fax (consult your fax manual for instructions on polling)

Bureau of Meteorology Fax numbers directory (free) 1800 630 100

Includes the following that may be of special interest.

All of - MSLP analysis chart, 24hr forecast chart and latest cloud picture	1902935252
Australian region 4 day forecast	1902935002
48 hr forecast chart	1902935007
2/3 day forecast chart	1902935728
4/5 day forecast chart	1902935003
6/7 day forecast chart	1902935004

Rain radar - maps of currently falling regional rain

The directory provides specific numbers for rain

radar pictures from each site

Farmweather - includes latest cloud picture and 4 day forecast plus written description of the weather systems and how they are expected to develop as well as probability estimates of forecast rain times and amounts within each region.

The directory provides specific numbers for tailored forecasts for 30 identified agricultural regions throughout Australia.

Seasonal Climate Outlook

Seasonal climate forecasts give the chance of the next 3 months being wetter or drier (or hotter or cooler) than the long term average. Rather than being based on prediction of the inherently chaotic dynamics of the atmosphere, they tend to be based on patterns of the sea surface temperature (SST) or associated atmospheric characteristics.

· *Bureau of Meteorology Seasonal Outlook*

Provided about the middle of each month, this outlook shows the probability of exceeding the median rainfall for the next three months. The BoM seasonal forecast is derived from the pattern of sea surface temperatures in both the Indian and Pacific Oceans. Temperature forecasts are available on the same site. http://www.bom.gov.au/climate/ahead/rain_ahead.shtml

· *Queensland Centre for Climate Applications*

This uses historical rainfall records and historical SOI to see what happened to rain in Australia over the next three months, when there were similar SOI conditions to those prevailing over the last two months.

http://www.dnr.qld.gov.au/longpdk/latest/latpaus.htm

· *El Nino/La Nina summary and background*

The Bureau of Meteorology is currently providing a good summary of conditions and why these are important to Australia. Worth a look to see what impact El Nino can have and the variability as well as the current risk.

http://www.bom.gov.au/climate/enso/

· *Current NSW conditions*

A report on current conditions and major agricultural activities in various regions of NSW is available from the NSW Agriculture Regional Review, web site - http://www.agric.nsw.gov.au/reader/11006

Seasonal outlooks on fax

Bureau of Meteorology Fax numbers directory (free) 1800 630 100

Includes the following that may be of special interest:

3 month climate outlook	1902935251
Southern Oscillation Index and Sea Surface Temperature update	1902935432
Australian Drought Statement (by the Bureau of Meteorology)	1902935259
1 & 3 month Australian rainfall maps	1902935262

Accessing historical climate data

Despite the short history of agriculture in Australia, we have historical rainfall records that are the envy of most other countries. For example Armidale has records from January 1872 and Glen Innes from 1881. Most centres have a similar length of records. They can be useful in preparing long term plans where the frequency and extremes of significant events are important and the medians and probabilities describe the local climate.

For a first cut analysis of past climate data, the Bureau of Meteorology web site http://www.bom.gov.au/climate/map/climate_avgs/clim_avg1.shtml has average monthly rainfall, rain days, max and min temperature and humidity for 1000 sites in Australia. Just click on the map and you can download the data into a spreadsheet. The same information is available in most public libraries in printed form in climatic averages.

The Bureau of Meteorology web site also has excellent maps of rainfall and temperature over the past day, week, month or three, six, nine 12, 18, 24 or 36 months. http://www.bom.gov.au/climate/austmaps/

You can access (for a fee) a complete data set of daily climate data form 1957 to the present from the SILO website http://www.bom.gov.au/silo/ ($100 gives you access to 11 sites). You can purchase software with the data from METACCESS (available from Horizon Agriculture http://www.hzn.com.au) or RAINMAN available through any NSW Agriculture office. Alternatively, you can purchase data from the climate and consultancy section of the Bureau of Meteorology (email: reqnsw@bom.gov.au , Fax 02 92961567 or Ph 02 92961555), the data can be provided electronically or in hard copy and the cost for most basic requests is less than $20.00.

Further information about accessing weather and climate information or about what the information means can be obtained from Paul Carberry, Advisory Officer, Climatology, NSW Agriculture. Mail : PMB 944 Tamworth 2340 email: paul.carberry@agric.nsw.gov.au

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