

CGA1207 Final Report

The weather station was installed September 2012 close to Walgett in a place that is central to the majority of Walgett cotton growers. It is working well recording rainfall, wind, temperature etc. All these measurements can be combined to calculate evapotranspiration rates. These rates can then be used with the IrriSat program to measure water use efficiency and will also help to predict irrigation scheduling. This is another tool to supplement moisture probes to schedule irrigations and therefore improve water use efficiency.

The Walgett Cotton Growers Association applied for the funding for the weather station as evapotranspiration rates can vary between areas and the next closest weather station that provides all the data required to record evapotranspiration rates is located at the Myall Vale research station, Narrabri. The Walgett Group felt that the weather conditions out at Walgett and therefore evapotranspiration rates would be higher than around Narrabri and therefore to get an true indication of evapotranspiration rates it would be worthwhile installing a weather station in the Walgett area. This would then provide us with more accurate data to then predict irrigation scheduling via the Irrisat program.

The group spent time with John Hornbuckle to go through our individual yield data and the workshop was extremely worthwhile. It enabled us to compare each fields water use efficiency and to benchmark this versus other growers in the Namoi Valley as well as growers in other river valleys such as the Gwydir. With the Murray Darling Basin Plan yet to be finalized and the possibility of there being less water available to irrigate in the future, benchmarking water use efficiency between irrigators serves as an invaluable tool to assess if an irrigators operation is using water efficiently and therefore getting the maximum "bang for bucks". If the irrigation farm is not functioning efficiently in terms of water use then the owner/manager can look at ways of improving their water use efficiency.

The Walgett Cotton Growers Association felt that this was a great way to supplement moisture probe data for those that have them installed and it gives another option for others who don't have moisture probes to gauge their water use efficiency and to schedule timely irrigations. Therefore we believed that this was a wise choice in terms of usefulness of funding that we as a group are able to apply for.