

Dear People,

I have one last little Christmas present for you. Please find attached the evaporation numbers I have been working on since gathering John's evap pan data last weekend. The data is easy to download but it takes a fair bit of number crunching to get it to the point where it can be plotted. I calculate evaporation based on the linear trend from each segment of the logger trace between pan re-fills.

I am really very pleased with pans and the loggers and the way this is all coming together. I can now see that the evap pans are producing useful data that is adding to the story. By combining the numbers from the three active pans we get a perspective. Using the numbers from Rob's, Ranx's and John's pans we get a good sense of the evaporation rates across northern Victoria, particularly for 2008/2009 season.

I have converted everything to mm/day rather than the previous monthly values. I typically calculate evaporation over a 2 to 3 week interval and attribute the value to the date that falls in the centre of the period. I only select segments where the data is linear and, accordingly, I allow for rainfall events.

Clearly, the numbers from last season (given the extremes heat) suggest we can expect pan evaporation at about 10 mm/day over the warm summer months, and in the hot extremes of January and February this will rise to around 12 to 14 mm/day.

The Met Bureau simply leave their data in this format when they quote evaporation on their website. So, our numbers should be in the same ballpark. In practice, however, ours may be a little higher because we do not have the standard carefully manicured lawn surrounding our pans.

If you want to compare evaporation from our pans with evaporation from a free water surface, such as a dam, you have to multiply the pan values by 0.75. Equally you can use the pan values to schedule irrigation and calculate biomass production, but to do this you need the appropriate crop factors for the plants you are irrigating, or at least some good rules of thumb calibrated against experience.

Remember to keep those thirsty pans filled with water over the summer season.

We will talk more on these things in the new year.

For now Merry Christmas to you all, and to all good night!

PS. I have also given you some interesting numbers for Gunbower from Black Saturday.

Regards Phil