

# BIMBADEEN CARBON NEWS

## 2021 Update

BY BOB DAVIE

30TH APRIL, 2021

There has been much activity on our Pilot trial paddock M16. We have added the missing growth link, grazed the paddock several times with 40 cows and calves, bogged the little Hyundai I30 in a soft spot where irrigated. Several wallabies and birds have been eating the carbon crop down but with all this we have managed a 10 tonne increase in TOC from the last test. Carbon samples were taken in December 2020 to a depth of 1 metre. The 6 samples taken were in the same GPS positions as the first testing. Depths were 0-10 cm, 10-30 cm, 30-45 cm and 45-100 cm. To give you an idea 0-10cm = was 55.04 tonne per hectare of TOC/SOC, 10-30 = 38.57 tonne, 30-45 = 18.29 tonne and 45-100 = 51.73 = a total of 163.63 per hectare. Due to Covid-19 results have only come back this month and have to be double checked for accuracy. There will be roughly a 9.5 tonne increase per hectare of TOC/SOC which is equal to 35 tonne of CO<sub>2</sub> per hectare or 70 tonnes for the 2-hectare paddock. Value at \$25 per tonne is \$875. This amount would not cover the treatment of the paddock but is an amount that is removed from the costing. If we were in Sweden or Switzerland, we would receive a price from \$100 to \$119 per tonne which would cover all the costing and return a profit. Mind you we have to keep in mind the value of the improved pasture and increased production in the returns which is considerable. An increase of 1% in TOC/SOC would increase the soil moisture between 120,000 and 150,000 litres per hectare depending on soil type, clay, red, sandy. The colony of Busan Bison dung beetles has spread over the farm and manure will be taken to depth to increase activity. Next week we will be starting on a program with Bioptiv Australia on another paddock with microbial activity which will hopefully have the effect of increasing carbon and decreasing the quantity of fertiliser. Bimbadeen will report on these activities in the next newsletter.

In last Saturdays Age 24th April 2021 there was an article on Ross Garnaut and soil carbon sequestration. There were three points made and number 3 was "Quote" It is not sustainable politically for a conservative Government permanently to deny Australian farmers access to international prices in a new rural industry that could soon be bigger than the wool industry "End Quote" Ross is a firm believer in soil carbon sequestration and his book Super Power should be read by carbon farmers and others.

On a farm GHG emissions audit we receive each year we place an amount of 2 tonne per animal of any size on any one day in the year. The maximum number of cattle on any one day from calf to mature bulls in weight. I have requested information from Angus Studs whom I know are doing carbon accounting, but they are reluctant for some unknown reason to give an answer. Fortunately, I have friends in Gippsland that have come up with a figure of 2.07 tonnes of CO<sub>2</sub>e per animal based on 700 steers from 12 to 24 months of age.

This may be handy for farmers to work on as a guide.

Many farmers are carbon neutral but do not know it, as they have never tested for carbon. I am not recommending anything to anyone but placing this in a Newsletter for persons to have a better knowledge of carbon.

30TH MAY, 2021

We are running a trial on Bimbadeen with Bactivate Australia Pty Ltd to increase microbes in our soils. Certain microbes have the ability to increase carbon. In this pilot trial we aim to show how to produce more carbon with less fertiliser. The trial will be on M14 which is alongside the M16 carbon soil sequestration paddock. M14 and M4 are control paddocks so we have all the carbon and soil tests currently available prior to the trial.

On the 6th of May Peter Briscoe and Michael Heran from Bactivate Australia brought down the 1st spray material. This was immediately applied by Richie to M14.

Our rainfall for March and April 2021 were March 39.8 and April 50ml. May rainfall for Bimbadeen was 88.3ml. Irrigation was ceased.

On the 10th of May, 40 Angus weaner steers and heifers are grazing the 2 hectare paddock. We wish to eat the foliage right down as there are some milk thistles and cape weed. Then the cattle will be removed and the growing stage and photosynthesis and growth kicks in removing co2 from the atmosphere. The carbon crop should crowd out the cape weed and milk thistles!

11th May the Herald Sun visited Bimbadeen for a carbon story and took photographs of m16. This visit is a follow up to the article with the Victorian governments 44 page document release on Climate Change.

A 2 page story on carbon was in the Herald Sun Magazine on Saturday 22nd May 2021.



M16 has been steadily improving over the last 3 months. This can be clearly viewed by satellite changes in color. The results that were late coming in due to Covid-19 showed an increase of 10 tonne TOC/SOC per hectare. M16 is 2 hectares so that is a 20-tonne improvement in 12 months. The coring consisted of 6 cores over the paddock in the same GPS positions of the first trial testing. 0-10, 10-30, 30-45 and 45-100 cm were individually bagged by Pete Ronalds and lab tested.

A 10 tonne increase in TOC/SOC is a \$1468 gain for the paddock at tonnes CO<sub>2</sub>e.

The moisture content is high and it has had limited grazing since the rains. May 88.3 ml. June 88.96 and July to date 17th is 19 ml. The higher portion has been strip grazed with 35 young cattle. Once the paddock is dry enough it will be hard grazed quickly and then rested so that it can grow with photosynthesis. This removes CO<sub>2</sub> from our atmosphere and adds carbon.



Over the last month I have been on many Zoom meetings and taken a keen interest in the \$500,000 Wilmot/Microsoft trade. I am working with Mick Green of Drift Media who does all our infrared and high-resolution photography and we are doing correlation from satellite with color, depth, moisture and actual on ground carbon measurement at Bimbadeen. There has been a paper written on the criticism of the satellite information and selection of on ground tests. Both the Wilmot/Microsoft report and critic sheet is available on request to [bimbadeen@nex.net.au](mailto:bimbadeen@nex.net.au)

If anyone has any questions please go to Q & A on [www.carbonneutralonline.com.au](http://www.carbonneutralonline.com.au) Our microbe trial is continuing with Bioptiv Australia P/L. Our total readings are 614 ug C/g. Over 600 is considered excellent in agricultural soil. We need to balance the fungal to bacterial %age from our reading of 45% to 55%. To 75% bacterial and 25% fungal. We are working on carbon pasting microbial activity.