

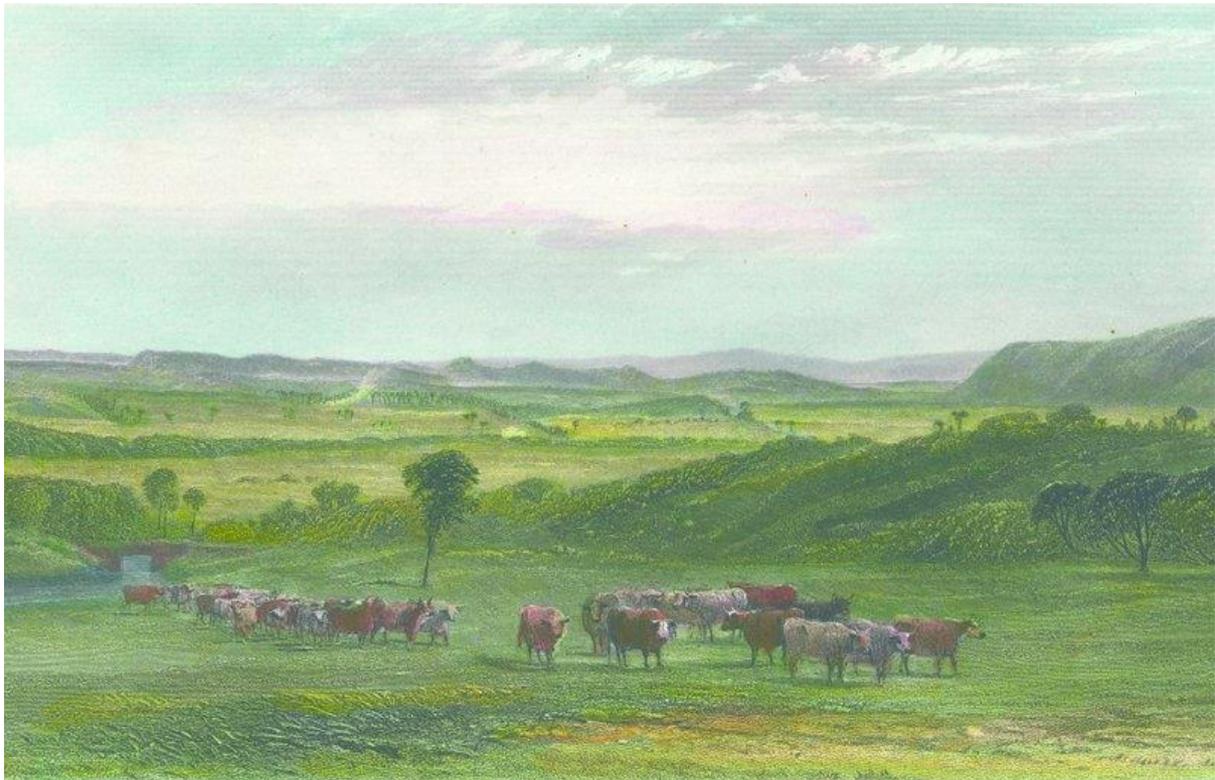
2018

## THE BROWNLOW HILL STORY

Brownlow Hill Estate

### HISTORY REMADE AT BROWNLOW HILL

Brownlow Hill is one of Australia's most significant early agricultural and settlement sites, providing opportunities for research into change and development over more than 200 years. It was the first dairy farm to serve the fledgling settlement of Sydney. Current ownership and occupation stems back almost 160 years. This case study tracks the ecological, production and social changes on the property over the entire period.



An early view of the Cowpastures

(Engraving by Arthur Willmore, National Library of Australia)

The buildings, grounds and farming undertakings at Brownlow Hill date back to the time of Lachlan Macquarie. Brownlow Hill, and its surrounding pastoral neighbourhood, was established by Alexander Macleay, first Colonial Secretary of NSW and his sons George and James Macleay. Originally called Lowe's Hill, Governor Macquarie renamed it Brownlow Hill in 1820



Brownlow Hill – watercolour by Conrad Martens, 1836

<http://nla.gov.au/nla.obj-134384291>



Sketch by Conrad Martens, 1871 Brownlow Hill, State Library of NSW.

## Dairying at Brownlow Hill

In 1887, Frederick Downes inherited the property and it still remains in the Downes family with Edgar, his wife Lynne and their three children all directly involved in some, or all, of the business.

There were originally four dairies on the property and three continue to operate, one under lease to an organic milk producer. The western portion of the property was used for grazing only and the alluvial flats for cropping and fodder production. Many of the 19<sup>th</sup> century and early 20<sup>th</sup> century farming systems at Brownlow Hill are now being applied by the 5<sup>th</sup> and 6<sup>th</sup> generation farming Brownlow Hill.

From 1973 through to 1985 the operations on Brownlow Hill involved double cropping with oats, Italian Rye for winter feed followed immediately by summer crops of corn, sorghum or millet – the only perennial being small acreages of lucerne. Depending on the weather, some of these crops became hay, some was made into silage and some used as green chop.

Gypsum was applied to break up clods and help with the physical soil properties. But Edgar Downes became concerned that the more he cropped and the more milk he produced, increasing nutrients were being taken away in the milk tanker or running into the river. Not only was the constant tillage damaging the soil, but it was damaging the budget – fuel, fertiliser and spraying was becoming increasingly costly.

## Big Changes at Brownlow Hill

From 1985 onwards, Edgar started to use poultry manure instead of synthetic fertilisers and also installed sub-surface drip irrigation. He reduced the cropping intensity and turned more land over to lucerne, both for the dairy herd and for sale as hay.

The deregulation of the milk market was a turning point. Edgar's land became subject to a Coal Seam Gas Exploration Licence, and the city of Sydney was encroaching.

Edgar adopted Natural Sequence Farming methods and started spreading a mixture of horse manure, sawdust, straw and urine on his paddocks. This was provided by a recycling business for free.

The Hawkesbury/Nepean Catchment Management Authority also sponsored the rehabilitation of Mt. Hunter Rivulet, creating weirs to rehydrate part of the property.

In a major development, the New South Wales Office of Environment and Heritage introduced BioBanking and Brownlow Hill became the pilot for this program. The rarity of remnant Cumberland Plain Woodland and the need for developers and the Government to offset destruction of this threatened ecological community has meant that Edgar's least productive agricultural land has become his most valuable asset.

The sale of BioBanking credits has guaranteed the future of Brownlow Hill. All of the 1215 hectares is heritage listed and will never be developed for housing. The historical dwellings, outbuildings and gardens are being renovated and rejuvenated.

New, efficient irrigation has been installed, and the dairy cows share the land with a growing beef herd. The 8 cuts of lucerne a year from 330 hectares are in great demand and the stable waste has improved the soil. (See Ecological Summary report)

Edgar's changed management practices has meant that he no longer uses chemicals. He rotates his crops and renovates his pastures as needed and his cattle don't require drenching or inoculations. His heifers and cows are naturally mated and his crops are resistant to mites, aphids and other pests. There is no salinity evident in either the river water nor the soil, and his cows don't bloat, even when consuming wet lucerne, clover or summer forage.

With these regenerative practices, Edgar is able to sustainably farm Brownlow Hill and continue his family tradition.