

HISTORY OF WAKOOL RICE GROWING PROJECT

In August 1942 following a request by the Federal Government Authorities for increased rice production, investigations were made by the Officers of the Department of Agriculture and the Water Conservation and Irrigation Commission as to the suitability of land and general possibilities of rice growing on a large scale in the Wakool District.

For this purpose, two experimental plots were selected in the Wakool District, one on Holding Reference No. 43 owner by the Estate of the late Thomas Wragge, and one on Holding Reference No. 66 owner by Mr E. R. Hollins.

Two plots were also established in the Berriquin District, one on Mr R. H. Landale's "Mundiwa" property on the Mulwala Canal about 5 miles east of Deniliquin, and the other on Mr W. Pyle's "Edgecombe" property between Berrigan and Jerilderie.

The following schedule shows the area and yield obtained from the various plots:-

Name	Holding Ref: No.	Area Acre	Net quantity of water used Acre feet	Average depth per acre foot	Total Yield Tons				Average yield per acre Tons
					Tons	Cwt	Qrs	lbs	
1. E.R.Hollins	66	3.8	17.95	4.72	7	5	1	7	1.91
2. Tulla Estate	43	4.25	17.77	4.18	7	14	2	8	1.83
3. R.H.Landale	738	4.33	33.62	7.08	11	7	-	-	2.62
4. W. Pyle	193	3.83	36.77	8.72	7	12	-	7	1.97

The yield of the Wakool Plots was disappointing after the promising growth and appearance of the crops, but difficulty was experienced in obtaining a machine to harvest the crops which were not taken off until the second week of June, after considerable damage had been done by cockatoos.

The average yields and quality of rice grown were considered most satisfactory when compared with those of other rice growing areas, such as the Murrumbidgee Irrigation Areas, where the average to date is 1.7 tons per acre, and Burma, Ceylon and China where yield of 15 cwts. per acre would be considered a good crop.

Experimental Plots

The suitability for rice culture of the sites available can only be determined by small experimental plots on representative sections. The soil though superficially resembling that at Murami on the MIA, is only three to four inches deep, appears likely to cake, and is probably cold in spring.

Mr E. R. Hollins was quite willing to run a small plot on his farm due to the lack of equipment by the Commission, on soil conditions similar to that of Tulla. The Tulla area is so important that two plots are not superfluous in determining its possibilities.

Each plot should be about 5 acres in area, to permit harvesting with a standard header if required. Provision should be made for sowing portion of each plot in the usual manner, and another portion to be sown by hand – broadcasting the seed on water which has been standing on the bay for some

days to warm. The latter method is standard practice in California, where similar "cold" soils are unusual, but aeroplanes are used to do the sowing. A solid block of 5000 acres of rice could probably be sown in the same manner here, with enormous saving of time.

Sowing in early October is highly desirable because of the probable shorter season of the Wakool area as compared with the M.I.A, and prompt action is therefore advisable.

Calore is recommended for the trial, sown at the rate of 112 to 120 lbs. per acre. The application of ammonium sulphate is inadvisable due to the new and heavy land.

Experimental Plots in the Berriquin Area

As mentioned previously, the areas available for rice culture on the Wakool area are not considered ideal, on account of their shallow, heavy textured soils, although some similar soils are known to be productive in southern U.S.A. Actual experimental plots can only determine their behaviour, but difficulty in germination and establishment may be expected which, while not very serious and fairly easily remedial in small plots, might well be disastrous on the large area contemplated. It was thought advisable therefore to seek more suitable large areas on the Berriquin area on which experimental plots might be established. Unfortunately heavy rain rendered the roads impassable, but it is suggested that the search be resumed as soon as conditions permit.

Farm Management

All the farming operations are carried out under the direction of Mr W.H.Swales, and he has the assistance of a Senior Overseer, who also acts as relieving Overseer, and 7 Overseers. It might also be mentioned that the overseers work under the same conditions as Water Bailiffs, viz. 6 days a week with 2 days off each fortnight.

The total area of rice on No. 1 Area is 4,104 acres, comprising 567 bays of an average of 7.25 acres, and is divided into 7 blocks, numbered A to G.

Each Overseer has the assistance of 10 P.O.W. and is responsible for the irrigation, drainage and care of the growing crops on one block averaging 590 acres and 81 bays.

A white painted stake is placed in each bay, bearing the number of the block and number and area to the nearest quarter of an acre of each bay as indicated for the purpose of identification, checking the yields etc. On these stakes is also marked the F.S.L. for the particular bay to maintain a constant depth of water and thus ensure a uniform crop.

Irrigation and Drainage

On all the main supply channels concrete outlets were provided, but on the smaller ditches three sand bags were used to form the outlet and prevent the banks from scouring and fourth to block the supply when not required. Likewise sand beds were used at drainage points; one well filled bag being in the check bank at the desired overflow level and the bank on each side protected from scour by two well placed bags. This arrangement was economical and proved most efficient.

**Notes from a report by W. Poggendorf following a visit to
the experimental rice crop in the Wakool area.**

August 1942

In company with Gibbs, District Engineer of Deniliquin, and Bowmaker (Agricultural Instructor) an inspection was made on 27 and 28 August of the Wakool Irrigation Area, to locate sites for experimental rice crops, intended to determine the possibility of large scale rice production in this area.

In conformity with a suggestion by Rawlings (WC & IC Commissioner) special attention was given to large holdings which might be wholly or partially resumed to provide a compact block of 5,000 acres of rice, without interference with small holdings. Such a compact block could be managed more economically, with the help of Commission engineers and equipment, than scattered areas on private holdings.

Several other aspects were also taken into account; as rice production on this area is intended only as a war measure under immediate state control, land which would require the least possible labour in preparation and cropping is desirable. Relatively treeless plain country was therefore sought, close to main canals, and with some drainage facilities.

Localities examined

After a study of maps of the Area, including a soil survey and again at Mr Rawlings suggestion, an area on the northern end of the Tulla Estate, some three miles south west of Burraboi Siding was first examined. Other likely sites visited were portions of Noorong and Cunninyeuk Estates. Several locations, including the Moulamein district, which appeared promising on the maps, had to be rejected on sight because of heavy timber or other defects.

Whilst it must be admitted that none of the sites indicated is ideal for the purposes in mind, final choice rested upon the following, in order of preference:-

Tulla, Estate late T. Wragge, Commission Holding 43 – portion north of Canal. This section comprises an area of approx. 12,000 acres of reasonably uniform Crown-grey shall clay loam overlying considerable depth of apparently impervious heavy clay. A main canal forms the southern boundary of this portion, and its water level commands the entire area. The area is treeless except for a few isolated clumps; its nearest point is within two miles of Burraboi Siding on all weather road which also forms the northern boundary. A good scattering of treefoil is apparent amongst the herbage, particularly at the southern end.

Costs

The original estimates of the costs of this project were:-

Capital costs	-	59,262
Production costs		72,193