

CALIF. LIBRARY AGENCY
NOT FOR LOAN



051067

3 JUN 1940

Card No.

DIS.

Western Australia.



Forests Department.



BLACKBOY.

Issued under the authority of the Minister controlling the Forests
Department:

THE HON. R. T. ROBINSON, K.C., M.L.A.

By Authority: FRED. WM. STIMPSON, Government Printer, Perth.



BLACKBOY (*Xanthorrhoea Preissii*) AND ITS USES.

THE Western Australian "Blackboy" belongs to the same species as the "grass-tree" of the Eastern portions of Australia. It is a familiar feature in the forest areas of Western Australia, and it is to be found in more or less abundance throughout the agricultural areas. The stems of the common Western Australian species are ordinarily from seven to eight feet high, but often run up to 15 feet in height, and are usually branched. It may interest many to know that the "Blackboy" belongs to the lily family, a botanical paradox more readily appreciated by the scientist than by the layman. It is constructed of a centre core and a very fibrous, somewhat spongy material sometimes hard enough to be termed wood, which contains a large amount of easily fermentable, sugary substance, surrounded by a thick coating of "husk" formed of the persistent bases of the old leaves lying very closely packed together, and more or less cemented by resin into a hard, coherent mass. When fire spreads through an area in which "Blackboy" is found, it readily attacks this hard outside layer, burning and scorching it, and this accounts for the fact that the barrel of the tree is always black, with all the appearance of having suffered from recent fire. When the "husk" is broken up and beaten the brittle resin is easily reduced to a fine powder, which may be with little difficulty separated from the fibrous skeleton on which it is built up. When heated this powder forms into lumps and becomes a substance known as "Blackboy gum." In areas covered by "Blackboy" this gum is found in lumps in the ground, the gum having probably been separated from the tree by fire and coagulated where it reached the surface of the ground. As the "Blackboy" covers very large tracts in Western Australia, its trunks can be obtained in enormous quantities, and the gum or resin might well form the basis of a large indus-

try. From experiments made by competent analysts, something of the potentialities contained in "Blackboy" have been ascertained. Among the products obtained have been glucose, treacle, scents, alcohol, and certain tar products, and from these latter again two dyes have been obtained. Picric acid, so much used in explosives, is also yielded by the tree, the gum, on treatment, giving up to 50 per cent. of its weight in the form of picric acid. The Munitions Department in England during the war made experiments with "Blackboy" gum as a producer of picric acid and was highly satisfied with the result. There would seem to be a great future for "Blackboy" by-products. The subject, although well investigated by competent authorities, has not yet been exhausted. In the early days of Western Australia the settlers obtained a form of alcohol from "Blackboy," which they used as a stimulant. This aspect of the question has been further treated by Mr. E. A. Mann, Analyst to the Government of Western Australia. The following table gives the results obtained by Mr. Mann:—

Month.	Weight of sliced core.	Proof gallons spirit per bushel (60 lbs.).	Equivalent sugar per 100 core.	Per cent. sugar by analysis.
September ...	350 grms.	1·24	20·6	26·1
February ...	6lb.	0·8	13·2	not determined
June ...	2½cwt.	0·5	10·0	10·5

Western Australia is in a position to supply annually thousands of tons of clean "Blackboy" gum at a price which should meet the views of manufacturing chemists whose business includes the many valuable distillates that can be obtained from the gum. Particularly in the matter of dye stuffs the capabilities of the resin should form the subject of a thorough investigation.