

20th January, 1964.

Dr. L. E. Luckwill,
Long Ashton Research Station,
University of Bristol,
BRISTOL.... ENGLAND.

Dear Dr. Luckwill,

Dr. Martin and I recall the pleasant luncheon we had with you at the Hobart Botanical Garden when we discussed twining in plants. The most detailed account of *Dioscorea* coming to my attention is :

"An Account of the Genus *Dioscorea* in the East" by Prain and Burkill, *Annals of the Royal Botanical Gardens of Calcutta*, XIV. Part 1, Species which twine to the left 1936. Part 2, Species which twine to the right 1939.

These volumes total over 700 pages and have a large number of very fine engravings. I remember that you said the left twining species contained more cortisone than the right twining species. Dr. Martin thinks the best one was an african variety.

As a matter of academic interest it might be worthwhile to try mechanically reversing the direction of twine. Perhaps this will depress the cortisone content in the normal left twiners and raise it in the normal right twiners. Enclosed is a short note describing similar experiments I performed upon beans. By later work I have demonstrated that the phenomenon described is just perceptible below one foot height; appreciable from one to four feet height and very large above four feet. Similarly each of nine separate experiments have demonstrated that the reversed vines produce a larger number of inverted color beans.

Dr. Martin thanks you for the Christmas card and sends his greetings. We both will be interested to learn your comments and suggestions upon these matters, and will be pleased to receive copies of any reports available.

*Sent "Reversed Bean Vines"
Castanea, Vol 25*

Sincerely yours,

Grote Reber.

GR:MER

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He says best plants with most cortisone
are left hand twiners from West Africa.