M.R.O. 1—20,002—12-8-65.

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(3) Initials of the Referencer 7/2/68

# MADRAS RECORD OFFICE

## GOVERNMENT OF MADRAS

Revenue DEPARTMENT

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| G.O. No. | 38 | Press |
| B.P. No. | | Mis. |

Dated 9-1-1875 196 .

*Not to be folded or roughly handled*

No. 84. Read the following Endorsement of the Under-Secretary to the Government of India, Department of Revenue, Agriculture, and Commerce, (Agriculture and Horticulture,) dated Calcutta, 12th December 1874, No. 2,771 :—

Read the following despatch from the Right Honorable the Secretary of State for India :—

Revenue,
No. 55.

INDIA OFFICE, LONDON,
*5th November* 1874.

MY LORD,—I have received and perused with interest the report on the cultivation of Ipecacuanha in Sikkim by the Superintendent of the Royal Botanical Garden at Calcutta, forwarded with your despatch, dated September 22nd (No. 56), 1874.

2. The plants appear to be now well established in Sikkim, where the propagation by root-cuttings has been very successful. I therefore propose to forward the next batch of plants to Madras for trial in that Presidency.

I have, etc.,
SALISBURY.

His Excellency the Right Honorable
The Governor-General of India in Council.

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From R. KNIGHT, Esq., Assistant Secretary to the Government of Bengal, to the Secretary to the Government of India, dated 12th September 1874, No. 2,625.

I AM directed to submit herewith, for the information of the Government of India, the annual report by the Superintendent of the Royal Botanical Garden, Calcutta, on Ipecacuanha cultivation in Bengal, including a history of the experiment from its commencement. A preliminary report on the same subject was received last year from DR. Henderson as an appendix to his report on the Botanical Gardens for 1872-73, copy of which was forwarded to you with this office endorsement, No. 1,475, dated the 24th June 1873.

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From G. KING, Esq., M.B., Superintendent, Royal Botanical Garden, Calcutta, to the Assistant Secretary to the Government of Bengal, dated Mungpoo, Kurseong, 13th August 1874, No. 716.

IN compliance with the request contained in your letter, No. 2,234, dated 3rd instant, I have the honor to submit herewith the first annual report of Ipecacuanha cultivation in Bengal, including a history of the experiment from its commencement.

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*First Annual Report on Ipecacuanha Cultivation in Bengal.*

IN March 1866, Dr. Hooker of Kew entrusted me with a single plant of *Cephaelis Ipecacuanha* which, in the following month, I made over in good health to Dr. Anderson, late Superintendent of the Botanical Garden, Calcutta. This plant was retained in the Botanical Garden, and every effort was made to propagate it by artificial means since it showed no tendency to yield seed. By 1868 this plant had been increased to nine; But as the climate of Calcutta did not appear to suit *Ipecacuanha*, three of these nine plants were sent to the Cinchona Plantation in Sikkim, in the hope that in one of the low hot valleys there a more suitable locality might be found. From the date of their arrival in Sikkim, the history of these three plants and their offspring becomes the history of the experiment, as the cultivation in Calcutta was then practically abandoned, although resusci-

tated for a short time in 1872, when Dr. Henderson acted as Superintendent. Propagation by stem-cuttings proved a very slow process indeed; moreover, about half the young plants so raised having perished by an accident, the total stock on 31st March 1871 amounted to only five plants. These plants had excellent roots, and the success of root-propagation having been discovered both in the Edinburgh Botanical Garden and at Rungbee, as many cuttings as possible were taken from the roots of these five plants, so that by the end of August in the same year the stock at Rungbee amounted to 300 plants.

2. In September 1871, eleven plants were received from the Royal Botanical Garden, Edinburgh, great attention having been there given to the cultivation of this valuable plant at the request of His Grace the Duke of Argyll, then Secretary of State for India. During 1872 further supplies of plants (amounting in all to 369) were received from the same source and from Messrs. Lawson, the eminent Scotch nurserymen. In December 1872, Dr. Henderson brought out from Kew and Edinburgh a further consignment of 128 plants, part of which was retained in Calcutta. In the mean time, propagation had been steadily carried on in Sikkim, and on 31st March 1873 the total number amounted to 6,719 at Rungbee and about 500 in Calcutta. On 31st March of the present year the stock stood as follows:—

| | |
|---|---|
| Planted outside experimentally .. .. .. .. .. | 292 |
| Rooted plants potted off and planted in frames .. .. .. | 13,000 |
| Cuttings rooted and unrooted .. .. .. .. .. | 50,000 |
| Total .. | 63,292 |

3. The recent success in propagation has been entirely due to the discovery that this plant, unlike most others, can be increased freely by root-cuttings, while (from the slowness of the plant's growth) materials for stem-cuttings are yielded very sparingly. Propagation has all along been carried on under glass-covered frames and at an elevation of about 3,000 feet above the sea. Our efforts have naturally been confined hitherto to increasing the number of plants so as to get a sufficiently large stock for experiment, with the view of determining the conditions under which *Ipecacuanha* can be grown as a crop. The work has been carried on by the Cinchona establishment, and very little, if any, special expenditure has been incurred on its account.

4. When this experiment in acclimatisation was first begun, very little was known regarding the plant and the conditions required for its growth. We have now learnt from experience that it is a humble creeping under-shrub of peculiarly slow growth, and that it apparently requires a thoroughly tropical climate, by which I mean an equable day and night temperature, no decided cold season, and an atmosphere pretty steadily and thoroughly saturated with moisture. We have found that it cannot stand exposure to a hot sun, and that it is apparently very impatient of stagnant moisture at its roots. We do not as yet know what sort of soil best promotes the development of the root (the medicinal part), but experiments are now going on with the view of settling this point.

5. As already stated, what remains to be done is to find out how to grow *Ipecacuanha* profitably as a crop. As a first step towards this, patches of plants have been put out at different elevations and under different conditions as to soil, moisture, and shade. We have not even now a sufficiency of large enough plants to do this on a large scale, for it must be remembered that the great majority of the plants above returned are still tiny things under two inches high, and which, with the slow rate of growth, will not be much more than double that height a year hence.

6. In conclusion, I would remark that no part of Sikkim has a tropical climate, that of the bottom of the lower valleys being no more than sub-tropical. It may, therefore, be found necessary to afford the plants, during the cold season at any rate, some cheap and rough kind of shelter. Since the beginning of this experiment, no distribution of plants has been made with the exception of a few sent to the Khasi Hills, the Andamans, and Madras. Two hundred are now with the sanction of Government in preparation to be sent to Burma and Ceylon.



From A. O. HUME, Esq., C.B., Secretary to the Government of India, to the Secretary to the Government of Bengal, (Revenue Branch,) dated 21st September 1874, No. 2,547.

I AM directed to acknowledge your letter, No. 2,625, dated the 12th instant, forwarding the first annual report of the Superintendent, Royal Botanic Garden, Calcutta, on the cultivation of Ipecacuanha in Bengal, including a history of the experiment from its commencement.

2. The propagation of the plant has been of late eminently successful, and I am to express a hope that it may be vigorously pushed forward, so that after two or three years there may be an ample supply of plants for experimental culture in all localities and situations where success may seem probable.

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From the Government of India, to Her Majesty's Secretary of State for India, dated 22nd September 1874, No. 56.

IN continuation of the correspondence ending with our despatch, No. 20 (Agriculture and Horticulture), dated the 13th December 1872, we have the honor to forward a letter from the Government of Bengal, No. 2,625, dated the 12th instant, submitting the first annual report by the Superintendent of the Royal Botanical Garden, Calcutta, on the cultivation of Ipecacuanha in Bengal, including a history of the experiment from its commencement.

2. Your Lordship will observe that the propagation of the plant has been fairly successful, and we trust that in two or three years, by vigorously continuing the work, there will be an ample supply of plants to plant out experimentally.

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COPY, with a copy of the papers noted on the margin, forwarded to the Government of Madras for information, with reference to the correspondence ending with the letter from the Government of Bengal to that Government, No. 3,454, dated the 15th November 1873.

Agriculture Horticulture Proceedings, September 1874, Nos. 13 to 15.

(By Order, etc.)

(Signed) C. J. LYALL,
*Under-Secretary to the Government of India.*

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No. 85. ORDER THEREON, 9th January 1875, No. 38.

Miscellaneous.

COMMUNICATED to the Commissioner of the Nilgiris, with reference to G. O., 5th December 1873, No. 1,355.

(True Extract.)

(Signed) C. G. MASTER,
*Acting Secretary to Government.*

To the Commissioner of the Nilgiris.
„ the Board of Revenue.
„ the Inspector of Forests.

Exd. F. R. Bantleman.

No. 47 of 1874 Govt. of India
REVENUE.
COMMISSIONER OF SALT REVENUE
Read
Noted for Publication
Read
Noted for Publication

No. 52

India Office, London

5th November 1874.

To

His Excellency the Right Honorable
The Governor General of India in Council

My Lord,

I have received and perused with interest the minutes on the extension of Government salt sales by the Superintendent of the Royal Botanical Gardens at Calcutta forwarded with your Despatch dated Calcutta the 23rd March 1874 No. 2.

2. The Court agree to be prepared to establish in London, where the proposed Government salt would be sold, a Depôt for the sale of plants to Planters, for trial on their Estates.

I am
My Lord
Your Excellency's
Obedient Servant
Salisbury

No 2771 Agriculture & Horticulture

Department of Revenue, Agriculture & Commerce

Calcutta, 12th December 1894

Forwarding a copy of the papers noted
in margin, forwarded to the Government of Madras
for information, with reference to the correspondence
noted in the letter from the Government of Bengal
to the Government of India No. 3162 dated the 5th November 1894.

By Order,

Chas. Lyall

Under Secretary to the Govt. of India

1894

Agri. & Hort. Proc.
February 1895
Nos. 2 & 3

Rec.: 1874. Dept
No. 4497

From

The Undersecy & the Govt Secretn
Dept of Rec. Affrs: Hom:
No. 2771

Dated 12th
Recd 19th & 3 Dec/74.

C. 1

Forwg copy of a Despatch from the Secretary of State intimating that he intends forwarding the report & Statement of Sponsor's Claims to Bounty for Septimental cultivation. Also notice of copies of papers relating to Cultivation in Bengal including a history of the experiment from its commencement.

No. 38

Communicated to the Commissioners of the Customs with reference to C.O.S. Dec. 20 1874 No. 1365

C.C.

2 Oct. Com. of Customs to Govt. Calcutta April Govt
No. 1874 Dec. 3 Secretary of State
3 Dec. Govt. Calcutta to Govt. Bombay