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MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No.	751	Press Mis.
Dated	19. 4.	1871.

Not to be folded or roughly handled

18

*Proceedings of the Madras Government, Revenue Department,
19th April 1871.*

No. 200. Read the following letter from the Commissioner of the Neilgherries, to the Secretary to Government, Revenue Department, Fort Saint George, dated Ootacamund, 15th March 1871, No. 20 :—

In continuation of my letter, dated 16th February 1871, No. 13, which was in reply to paragraph 3 of Government Order, Revenue Department, 7th February 1871, No. 249, regarding the Neddivattum Jail, I now reply to paragraph 5.

2. Mr. Broughton in his letter* of the 31st August 1870, recommended

* Proceedings of Government, Revenue Department, 7th February 1871, No. 87.

“ that a considerable number of Cinchona trees of seven years old should be cut down, in order that the method of coppicing should be tried, and the expense, as compared with mossing, be accurately determined.”

Government in the order† upon his letter apparently approve of his recommendation, and say (paragraph 5) “ in

† Government Order, 7th February 1871, No. 249.

“ order that the value of the quinine so obtained may be tested, as also with a view to the early introduction into the English market of the Indian grown barks, the Superintendent of the Cinchona plantations will be directed to fell a moderate number of trees at the proper season, the bark of which Mr. Broughton will prepare for shipment to England.”

3. From the wording of paragraph 5 of the order, I am left in doubt whether the Government fully comprehend the object and scope of Mr. Broughton's recommendation, neither can I understand the purport of the words “ in order that the value of the quinine so obtained may be tested.”

It is evident from Mr. Broughton's analysis (paragraph 9 of his letter above quoted) that the bark of the shoots from the stools of the trees felled in 1867 is of a most satisfactory character as far as quality goes.

4. I may recall to your mind that two methods of harvesting Cinchona bark have been proposed; namely, the *mossing method* and the *coppicing method*; and the object of Mr. Broughton's proposal, in paragraph 10 of his letter, is to put these two methods on their trial in order to see which is the best. For this purpose, it will not be sufficient to issue an order to the Superintendent to fell a moderate number of trees at the proper season.

A particular block, say, of seven or eight year old trees of one or more varieties, ought to be measured, and the trees counted and cut down on the *coppicing* principle, and the bark prepared and sent to England; all expenses and receipts on account of the bark being passed to a separate account to be called the *Coppicing Account*.

When the shoots from the stools have sprung up and attained a certain age (which Mr. Broughton advocates the coppicing principle, should determine), then they, in their turn, should be cut down, and the bark sent to England, and receipt and expenditure carefully recorded and passed to the *Coppicing Account*.

5. The value of mossed bark, as compared with unmossed bark of the same age, will, I hope, be satisfactorily determined in the course of the current year, when Mr. Broughton has reported upon the comparative quantities and qualities

*Proceedings of the Madras Government, Revenue Department,
19th April 1871.*

of mossed and unmossed barks, and I have gone into the question of the cost of mossing the trees.

But the *mossing process* or *method*, advocated by Mr. McIvor, involves something

* The renewed bark of one "season's growth is more than this, namely, the removal of strips of bark from the stem of the mossed living tree, which is then remossed to stimulate the renewal of the bark as explained in paragraph 30* of the Superintendent's annual report for 1864-65.

"quite as thick as ordinary bark of two or three years' growth. The application of moss has also the advantage of greatly increasing the weight and thickness of the bark, and from observations which have been made would indicate an increase in the alkaloids, that is, a pound of bark covered with moss produces more alkaloids than the same quantity of bark not so protected.

6. To institute a useful comparison between the two methods (mossing and coppicing) a block, equal in area to the *coppice* block, should be selected for treatment by the *mossing method*, and a separate account under that name should be kept of the annual expenditure and receipt for the whole period required to determine the comparative value of the two methods.

7. I would, therefore, propose to select a block of 800 *Succirubra* trees at Neddivattum of the season of 1862, and in like manner 800 *Condaminea* trees at Dodabetta; 400 of each variety to be tried on the *mossing* principle, and 400 on the *coppicing* principle.

8. In accordance with Government Order, Revenue Department, 9th February 1869, No. 426, some thousands of *Succirubra* and *Condaminea* trees have been mossed under Mr. McIvor's process, and Mr. Dawson, the Assistant Superintendent,

of Neddivattum, has just completed stripping off the bark† from 1,000 of the *Succirubra* trees. In like manner the Assistant Superintendent of Dodabetta has stripped the bark from 101 of the mossed *Condamineas*. The bark has been set aside and stored in the Neddivattum and Dodabetta Jails.

When the trees were mossed in 1869, it was contemplated to ascertain the comparative value of mossed and unmossed bark and nothing more; and therefore the trees now stripped at Neddivattum and Dodabetta, although in a block as it were, are, to my mind, the best trees on the plantations.

It will not, however, be difficult for Mr. Broughton to get as much unmossed bark from individual *Succirubra* and *Condaminea* trees of equal growth and age as he needs for his investigation into the comparative value of mossed and unmossed bark.

9. This mossed bark at present stripped and stored at Neddivattum and Dodabetta may weigh when dried about 1,200 lbs.

The bark, after Mr. Broughton has completed his investigation, had better be sent into the English market to accustom buyers to the Indian grown barks.

10. Then comes the question how is Mr. Broughton to get the 20,000 lbs. of fresh bark he requires to make 800 lbs. of Amorphous quinine in 1871-72.

When Messrs. Broughton and McIvor return from Bengal, I will consult them on the matter, and shall then also be better able to report upon the further questions raised in paragraph 9 of the Government Order under reply.

*Proceedings of the Madras Government, Revenue Department,
19th April 1871.*

No. 201.

ORDER THEREON, 19th April 1871, No. 701.

Miscellaneous.

THE Government approve the Commissioner's proposals as to the mode of testing the comparative merits of the

"coppicing" and "mossing" methods of treating the *Cinchonas*, and request him to give the necessary instructions for carrying them out.

(True Extract.)

(Signed) W. HUDLESTON,
Secretary to Government.

To the Commissioner of the Neilgherries.
„ the Government Quinologist.

Exd. F. R. Bantleman.

Commissioner's Office
 Coimbatore 15 March 1871

no 29

From
 J. W. Brooks Esquire
 Commissioner
 Civil Services
 To
 The Secretary to Government
 Revenue Department
 Madras.

Sir,
 In continuation of my letter
 dated, 16th February 1871 no 13, which was in
 reply to para 3 of Government Order, Revenue
 Department, 7th February 1871 no 249
 regarding the Kaddavattam jail, I now
 reply to para 5.

2
 Mr. Broughton in his letter
 of the 31st August 1870 recommended
 "that a considerable number of Cinchona"
 "trees of 7 years old should be cut down"
 "in order that the method of coppicing should"
 "be tried and the expense as compared"
 "with mowing be accurately determined" and
 you request

Govt. of 1871 Madras

REVENUE.

THE COMMISSIONER OF THE
 NINGHERNI

to, do, do

Dated April, 1871.

Recd.

Per.

G. O. 10th April 1871, No. 701

APRIL

Nos. 500-501.

2079/1

Cinchona bark - Commissioner's proposals
 as to the mode of testing the comparative merit
 of the coppicing and mowing methods approved
 and authority granted for carrying them out.

Government in the Order

upon his letter apparently approval of
his recommendation and say / para 5 /
"in order that the value of the Quinine
"so obtained may be tested as also with
"a view of the early introduction into the
"English market of the Indian grown bark
"the Superintendent of the Chinchona Plan-
"tations will be directed to fell a moderate
"number of trees at the proper season the
"Bark of which Mr. Broughton will
"prepare for shipment to England.

3. From the wording of para-
5 of the Order, I am left in doubt as
whether the Government fully comprehended
the object and scope of Mr. Broughton's
recommendation; neither can I understand
the purport of the words "in order that
the value of the Quinine so obtained
may be tested."

It is evident from Mr.
Broughton's analysis / para 9 of his letter
above quoted / that the Bark of the shoots
from the stools of the trees felled in 1867
is of a most satisfactory character as
its quality goes.

4.

I may recall to your mind
that 2 methods of harvesting Chinchona Bark
have been proposed viz the Mossing Method
and the Coppicing Method and the object
of Mr. Broughton's proposal in para 10 of
his letter is to put these 2 methods to their
trial in order to see which is the best. For
this purpose, it will not be sufficient to
issue an order to the Superintendent to
fell a moderate number of trees at the
proper season.

A particular block say of
7 or 8 year old trees of one or more varieties
ought to be measured and the trees counted
and cut down on the Coppicing principle
and the Bark prepared and sent to England;
all expenses and receipts on account of the
Bark being passed on a separate account
to be called the Coppicing Method Account.

When the shoots from the stools
have sprung up and attained a certain
age / which Mr. Broughton who advocates
the Coppicing principle should determine /
then they in their turn should be cut down
and the Bark sent to England and

the Government
to be careful
to be careful

receipt and expenditure carefully recorded
and passed to the Coppicing Account.

5. The value of mossed
Bark as compared with unmossed Bark
of the same age will I hope be satisfac-
torily determined in the course of the current
year, when Mr. Broughton have passed
upon the comparative quantities and
qualities of mossed and unmossed Barks
and I have gone into the question of the cost
of mossing the trees.

But the mossing process
or Mr. Thos. advocated by Mr. Dawson
involves something more than this viz.
the removal of strips of bark from
the stem of the mossed living tree which
is then removed & stimulate the renewal
of the Bark as explained in Para 30 of
the Superintendent's annual Report for 1864/65.

To institute a useful
Comparison between the two Methods
/ Mossing and Coppicing / a Block equal
in area to the Coppice Block should
be selected for treatment by the mossing
process.

Mr. Thos. and a separate account
under that name should be kept of the
annual expenditure and receipt for the
whole period required to determine the
Comparative value of the two Methods.

7 I would therefore propose
to select a Block of 800 Succumbra
Trees at Keddavattum of the season 1862
and in like manner 800 Candamira Trees
at Soda-betta, 400 of each variety to
be treated on the mossing principle and
400 on the Coppicing principle.

8 In accordance with Govern-
ment Order, Revenue Department 9th
February 1869. No 426 Some thousands of
Succumbra and Candamira Trees, under Mr.
The Swiss process and Mr. Dawson the
Assistant Superintendent of Keddavattum
has just completed stripping off the
Bark from 1000 of the Succumbra Trees
In like manner the Assistant Superintendent
of Soda-betta has stripped the Bark from

from 101 of the mossed ^{landamungas} bark
has been set aside and stored in
the Keddawattum and Soda-betta jails.

When the trees were mossed
in 1869, it was contemplated to ascertain
the comparative value of mossed and
unmossed bark and nothing more,
and therefore the trees now stripped
at Keddawattum and Soda-betta,
although in a block as it were, are in
my mind the best trees on the Plantations.

It will not, however, be
difficult for Mr. Broughton to get
as much unmossed bark from indi-
vidual *Acacia* ^{landamungas} trees
of equal growth and age as he needs for
his investigation into the comparative
value of mossed and unmossed bark.

9. The mossed bark at
present stripped and stored at Keddawattum
and Soda-betta may weigh when
dried about 1200 lbs.

The Bark a fair sample
Broughton

Broughton has completed his investigation
into the comparative qualities of mossed
and unmossed bark and better be
sent into the English market & ascertain
the prices of the Indian-grown Barks.

10. Then comes the question
how is Mr. Broughton to get the
2000 lbs of fresh bark he requires.
I make 800 lbs of Amorphous Quinine
in 1871/72. When Messrs Broughton and
McLure return from Bengal, I will
consult them on the matter and shall
then also be better able to report upon
the further questions raised in para 9
of the Government Order under reply.

I have the honor to be
Sir

Your most obedient servant

H. T. S. Kelly

Commissioner

J. G. D.

Revenue Department

701.

Proceedings of the Madras Government

Under date the 19th April 1871

Read the following
letter from the Commr. Nilgheerries

Reporting on the Banks } (H.E. 15th March 1871 No. 20)
of Cinchona trees.

The Government approve
the Commissioner's proposals
as to the mode of testing the
comparative merits of the
"Cofficing" & "Mossing" methods
of treating the Cinchonas and
request him to give the necessary
instructions for carrying them out.

L.B.

3 To the Commissioner of Nilgheerries Decr 20
1 Copy to Govt. Zoologist.

[Signature]

4-0-1881 11-11-88
20 97th

Revenue 1871-1872
From the Commissioner
Nilgheerries

D. J. H. Secretary to Govt.
Revenue Department
Madras.

Dated 15th March 1871.

Ch. 20

Enclosure

Inclosure

as so per 19th

Cinchona trees

Reports on the Banks

of

Commissioner Nilgheerries

No 200-201

G.P.
made of leather or
tan method of trial
in the Circular

C.P.
(200)