M.R.O. 14—10,000—21-4-22

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 967 Press / Mis.

Dated 22nd July 1859.

Not to be folded or roughly handled

No. 46. Read the following letter from H. NEWILL, Esq., Director of Revenue Settlement; to J. D. BOURDILLON, Esq., Secretary to Government, Fort St. George; dated Madras, 30th June 1859, No. 564.

Para. 1. I have the honor to acknowledge the receipt of the Proceedings of the Madras Government dated 31st Ultimo, No. 730, on the subject of attaching an Agricultural Chemist to the Revenue Settlement Department.

2. As the Government on re-consideration do not admit the practical utility of such an arrangement, I beg to suggest that provision may be made in the manner suggested in my letter of 26th February last, No. 180, for what appears to me to be more especially required in the analysis of soils of a general or peculiar character, and of the residuum left by the waters of the great rivers as a fertilizing source in the Delta tracts.

3. It is not difficult to shew the utility of such analysis with regard to the deposit brought down every year by the rivers, for the determination of the relative quality and quantity of such matter, which is generally supposed to impart the peculiar fertility to the Delta soils, would certainly do much, first of all, in deciding how far such supposition is true, or how far the lands owe their productiveness to the action of the water without much reference to the foreign matter contained in it.* Any conclusion which thus may be arrived at in ascertaining the intrinsic values of the waters of the several rivers are useful as general considerations connected with the assessment, though not of individual application to the lands of each ryot.

4. Again soils of a peculiar character are from time to time brought to notice, to which either extraordinary fertility or barrenness in ascribed, but often with a mysterious vagueness. An examination of supposed deleterious ingredients would often decide in a great measure how far such opinion may be correct, and, what is more important still, whether the fault may be of a temporary or more permanent nature, such as in the cases of the Carbonate and Muriate of Soda, the former giving up its excess of saline matter rapidly under irrigation, while the improvement of soil impregnated with the latter is often hopeless within any limited period. Another instance that my be stated is that of a white efflorescence which has recently spread over tracts of land in Masulipatam since the introduction of their irrigation; the thing is new to the ryots, and any aid in determining its character and influence would be useful in a general way.

5. Another case in which the utility of analysis may be easily seen, is that of crops which are reputed to be of an exhausting character to the soil, such as the Waragu (Paspalum Scrobiculatum) in the South, after which a year's fallow is generally supposed to be required to restore the land, remission being made in the accounts though the land is retained in the Puttah. From what I have learnt of this grain in the small extent to which it is grown in the North, there does not seem to be attached to it there any such exhausting property; an analysis of the ash of the plant and of the soils on which it is generally grown would go far towards setting this question at rest, and it is not an unimportant one, as Waragu is the staple produce in some lands, and, if the above is the fact of the case, it should influence the grain value such of lands, which should be fixed not in the single year, but upon the average of what is produced in several.

6. These few illustrations may suffice to shew the propriety of making the provision now solicited by attaching two men from the subordinate branch of the Medical Department to the Professor of Chemistry, or to the Chemical Examiner, on salaries of one hundred Rupees each per mensem, inclusive of Military pay, as described in the letter of the Chemical Examiner already forwarded with my letter dated 26th February 1859, No. 180, the total cost per mensem being two hundred Rupees.

7. It is needless perhaps for me to expatiate upon what appeared to me the desirability of an Agricultural Chemist making the soils of this country a special study, or on the aid I expected to derive from such a person in fixing a more definite nomenclature than now exists, removing uncertainties of description, explaining numerous doubts and difficulties which must still remain in mystery without such professional aid; but I may be permitted to remark that although

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scientific research may not do much towards determining the value of the lands of the ryots individually, the association of scientific experiment with such a large national work as the survey and assessment of the Presidency would not be without its use in supplying many general considerations which bear upon the subject, and would at the same time materially promote the interests of science in this country, and thus aid ultimately in developing its resources, and any practicable steps taken in this direction with the facilities afforded by the measures in progress, would hereafter never prove matter of regret. In illustration of the present backward state of this branch of scientific knowledge, I may simply note the circumstance that there appears up to the present time, as far as I can learn, to be no explanation of the cause of the fertility of the black soil, which can be received as satisfactory or any scientific and analytical exposition of the influence of the waters of the great rivers of the Presidency in fertilizing the soils and adding to the productive resources of the country.

No. 47. ORDER THEREON, 20th July 1859, No. 967.

Adverting to the late order of Government deciding that an agricultural Chemist shall not be attached to the Revenue Survey, the Director of Revenue Settlement instances certain cases, to shew that chemical aid in examining soils will often be useful in his work, and renews his former* application for two Medical subordinates to be employed on 100 Rupees each under the orders of the Professor of Chemistry or Chemical Examiner, in the analysis of specimens of such soils as he may think it desirable to have so examined.

*Letter from Mr. Newill, 26th Feb. 1859, No. 180.

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(Signed) J. D. BOURDILLON,
Secretary to Government.

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No 967

Proceedings of the Madras Government
Under date the 20 June 1859

Read the following letter
from the Dr of Rev. Settlem

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9 Encls

a/ To the Dr of Rev Settlements Dispd 21 to 4
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c/ to Chemical Examiners

Further correspondence
para 63 of the Director's
report for 1859
& para 43 of do
in Jo 27th Sept-
1860 Nº 1673

Application for
Electrical and mi ce
examination of Coll. Pole

Secretary 1857 Dec 14th
Rec'd Govt 22d Aug.

23-1-921

22.3

31.5.57

Rec'd 1st Nov 1867.

Rec'd of Lieut Col Harkness Govt
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