

Home (1920) Department.
(Miscellaneous)

Ordinary SERIES.

G.O. No. 1094

DATED 15-6-1920

INDEXED

[Despatch Abstract.]

PUBLICITY.

Expenditure of Rs.50 as prize for an essay on Food
Production--sanctioned.

BACK PAPERS.

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FURTHER PAPERS.

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R.O.C. No. 1854



PUBLICITY BUREAU,
Victoria Buildings, Egmore,

Madras, dated 7th June 1920.

Secretary to Government, Home (Mis.) Department, u.o.

Res. no 18 on
p 326 of file in
linked file below

In accordance with a resolution of the Publicity Board at its meeting held on the 13th March 1920 a news-slip was published in the newspapers offering a prize of Rs.50 for a leaflet best calculated to induce the ryots to increase food production. With reference to this, 56 essays were received and of these the Board has now awarded the prize to the essay ^(copy enclosed) of one Mr.S.Sundararajan, Pleader, Chingleput. As the amount is now to be paid to him I request sanction of Government for incurring this expenditure.

I have forwarded the essay to the Director of Agriculture with a request to have it looked through and corrections made if there are any seriously misleading statements in it. On receipt of his reply the essay will be printed and circulated to the newspapers.

[Signature]

Publicity Officer.

U.S.

Home (mis) Dept.

A draft order is subd. ~~to be~~
~~in accordance with the provisions of the rules.~~

S.P.
14.6.20
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INCREASED FOOD PRODUCTION.

Tenant. Master, the other day when you took me to Messrs Parry and Co's demonstration farm at Ranipet, they told me that they were raising a yield of nearly 2,000 Madras measures of paddy per acre on their lands. What is the method they adopt?

Landlord. Their method consists mainly in what is called scientific manuring.

Tenant. I also apply large quantities of cowdung manure.

Landlord. That will not do. The manure that you apply must suit the soil and the crop ^{be} ~~xxx~~ ~~xxx~~ sufficient to give you the maximum profit possible. You should deal with the soil and the crop as a doctor does with his patient. Just as a doctor, before he writes his prescription, tests his patient's pulse, diagnoses the disease and inquires of his past history and habits, general health etc., you should also consider the quality of the soil and the nature of the crop and ascertain the exact deficiencies of the soil &c. and then determine the proper kind and amount of the manure to be applied. The chief elements required for the growth of crops are nitrogen, phosphoric acid, potash and lime. These elements are found to exist in various proportions in various crops. Hence you should first ascertain in what proportion these several elements are found in the soil and what amount of each of these elements you should apply in order to obtain the best outturn of the crop you wish to raise thereon.

Tenant. All that is impossible. You know, Sir, only scientists can do it.

Landlord. For all practical purposes, you can determine the deficiencies of the soil yourself by observing the growing crop. The chief function of nitrogen is to produce leaf; of phosphoric acid to produce fruit and seed; and

and of potash to form wood or stem of the plant. Hence by observing the growing crop in its various stages. You can know its needs fairly accurately. If the leaves are pale and stem short and the growth poor in general, you know the crop lacks nitrogen; or if the plant stands still for a considerable time after germination you can also be sure it is lacking in nitrogen. If the crop continues to grow towards the end of the season and fails to mature in time or give sufficient yield of grain, you know it is lacking in phosphoric acid. If the stalk or stem is weak, it is lacking in potash.

Tenant. How can this assist in selecting the manure?

Landlord. There are different manures whose contents vary in different proportions. Some of these manures e.g., nitrate of soda and oil cakes, contain much nitrogen; some like bones, bone-meal and superphosphates contain much phosphoric acid; and some others like nitrate of potash and sulphate of potash contain potash. As these chemical manures are known to contain these elements in certain definite proportions, you can easily ascertain the exact amount of each of these manures to be applied so as to save waste and assure the best results.

Tenant - So I have to purchase these manures separately and then mix them in suitable proportions to suit the soil and the crop. That will be costly and inconvenient.

Landlord. You can get rid of all trouble and inconvenience by sending 6 palms of your soil to Messrs Parry and Co., who will do the necessary analysis for you and give you the best manure mixture to suit your soil and the crop.

Tenants. What will be the cost of the manure?

Landlord. Generally, the cost will be Rs.15 per acre.

Tenant. That is too much.

(3)

Landlord. But the increase in the yield will far outweigh this cost, so that your net gain will be considerable. For instance, by using their scientific manures, they are able to raise 5812 lbs (of paddy per acre: plots cultivated with country manure for comparison yield only 2344 to 2625 lbs. per acre: thus giving an average increase of 3187 lbs or 1062 Madras measures of paddy per acre i.e., taking at 6 Madras measures per Re. Rs.177 per acre additional profit. So by using these manures you add Rs.160 per acre to your net profits.

Tenant. But these manures exhaust the soil so that it loses its fertility and the succeeding yields will be poor.

Landlord. You are not correct. One application of the manure is found to serve for three crops. They got 5034 lbs. 4584 lbs. and 4493 lbs. of paddy per acre successively after a single application of the manure. No doubt the soil loses more of its elements on account of the increased yield. You have to replace it by applying manures. If you continue your usual applications of cowdung manure the soil will retain its productivity.

Tenant. I understand, however, that these increased yields are possible only with engine irrigation.

Landlord. No doubt it is to some extent true, as much of the manure that is applied to wet fields is washed away with the irrigation water; and as the chemical manures are easily dissolved and act very quickly they are lost if too much water is used for irrigation. The less water you use the more effect will the manure have. Hence the application of scientific chemical manures will be most profitable only in the case of dry cultivation or cultivation under wells.

Tenants. Then what do you advise in the case of wet lands?

Landlord. In the case of wet lands you generally apply green manure, is it not?

Tenant. Yes; but it is becoming more and more costly and difficult to be procured.

Landlord. Then why not grow it on the land itself?

You can sow the seeds of the manure before harvesting the paddy and allow it to grow there till sowing time, when it can be ploughed in. By this -- method you will save the labour of collecting and carrying the manure to the field; and you have only to get the seed sown and give it two or three waterings; and the result will be a greatly enhanced yield.

Tenant. What are the green manures that can be thus grown?

Landlord. Daincha; wild indigo, indigo, sunhemp, creeping green gram &c 2½ Madras measures of daincha costing only Rs.0-15-0 will yield manure sufficient for one acre 4 Madras measures of wild indigo costing only Rs0-9-0 will suffice for one acre.

Tenant. Can you give me instances and figures?

Landlord. Yes

(1) M.R.Ry. V. Sundara Achariar, Tirupachasur Villupuram Taluk grew daincha on 1.33 acres and obtained a yield of 45 to 50 kalams (= 1620 to 1800 Madras measures) of paddy i.e., at 6 measures per Rs. 270 to 300. The cost of ploughing the manure in was only Rs.4. Thus the profit was Rs.200 to 207 per acre.

(2) M.R.Ry. Brinivasa Achariyar, Arasamangalam South Arcot District, grew daincha on one cawnie. The total cost of growing the manure including irrigation was only Rs.27. The outturn of paddy was 32 kalams or 32 X 36 Madras measures. valued at Rs. 112½- and straw worth Rs.15. Thus the total profit

was Rs.100. At present prices of 6 measures per Rupee the value of the paddy would be Rs.192, thus raising the profit to Rs.180 per cawnie or Rs.135 per acre.

(3) M.R.Ry. V. Doraswamy Aiyangar, Amadur near Chin gleput by growing daincha on his land was able to raise 30 kalams of paddy per acre while his neighbours' lands yielded only 20 kalams per acre. Thus the increased profit was 10 kalams (= 10X 36 Madras measures) per acre or Rs.60 additional profit.

(4) Mr. Kalli Chitti Abbaye Nayadu of Pulla, Kistna District, obtained an increase of 5 bags and 3 bags per acre in 1913 and 1914 by growing daincha on his paddy lands. At present prices this means Rs.45 and 27 -- increased profit per acre.

Tenants. In the case of my lands, there is an interval of nearly 8 months between harvest and seed time, so that I cannot grow these manures successfully.

Landlord. You may cut the manure in time, store it and apply it at seed time. They do so in the Coimbatore farm and obtain good results.

Tenant. But you were telling me a little while ago that -- plants need many elements. Do these green manures supply all these elements?

Landlord. No. They supply only nitrogen which is a great desideratum in the case of all soils and all crops. You will have to supply other elements by using other manures.

Tenant. What are the other manures that have to be used with green manures?

Landlord. You have to use some phosphatic manures e.g., bone-meal or superphosphates. Superphosphates cost only Rs.4 per cwt, and if you apply 1 cwt per acre it will be sufficient and the increased yield of paddy will be 150 Madras measures, value Rs.25; so that the net gain will be Rs.21.

Tenant. After all, it is only fruit-farming and industrial crops that pay.

Landlord. You are mistaken. By proper methods of cultivation you can reap equally good profits from cultivation of food crops. Moreover, for fruit-farming and industrial crops. You require a good capital and also some technical outfit and implements, whereas in the case of food crops you can start with practically no capital and still reap good profits.

Tenant. Does not Cambodia cotton yield a profit of Rs.150 or so per acre?

Landlord. The average net profit is only Rs.50 or 60 per acre. The yield for the 8 years 1910-11 to 1917-18 in the Government Farm at Palur is as follows

Year.	outturn of cotton on one acre in lbs.	Value		Expenses.	
		Rs.	A P	Rs.	A P
1910-11.	1388	196	10-10	32	11-0
1911-12.	1406	92	12-5	41	8-0
1912-13.	757½	65	2-4	30	5-7
1913-14.	961	124	5-7	77	0-11
1914-15.	523	52	4-9	47	7-6
1915-16.	304	39	1--0	53	2-10
1916-17.	1328	156	1-1	49	2-5
1917-18.	631	136	5-1	67	4-4
Total		862	11-1	398	10-7
Average		107	13-5	49	13-4

Thus the average profit per acre was only Rs.58 and in one year there was an actual loss of rs.4.

Tenant. What about tobacco and sugarcane which I hear yield a profit of Rs.200 or 300 per acre?

Landlord. As I already told you, these crops require a large capital to start with. The expense of preparing the produce for market is also great. As the produce cannot be sold locally you will have to

carry them to the cities and employ agents &c.

They require a constant supply of irrigation. As the crop occupy the field the whole year, the soil will be exhausted, and your opportunities of remedying the evil by application of suitable manures or rotation 3 crops become reduced. As a second crop is out of the question, the profit really presents that of two successive crops of grain which you can reap in a year in case of cultivate paddy. On the whole the cultivation of these industrial crops is not more profitable than paddy.

Tenant. What is the profit per acre that I can expect from cultivating paddy on wet lands according to your methods.

Landlord. During the 3 years ending 1917-18 the profits from cultivation of paddy in the Coimbatore farm has been Rs.100 per acre. The average outturn was 1000 Madras measures whose (value at present price of 6 measures per Re.= Rs.166-10-8). The cost of cultivation including manure is Rs.35. Thus the average net profit will be Rs.130 per acre. If you raise two crops a year the profit would be Rs. 260. per acre.

Tenant. So you advise me to cultivate only paddy on wet lands. What crops do you advise for dry lands?

Landlord. Ragi or maize. If you sink a good well on dry lands and plant an oil engine you can grow paddy on dry lands also with profit.

Tenant. What further advice do you give?

Landlord. You have to bear in mind what I said about the manure requirements and apply the different manures in the proper proportion. Then you should select your seed with care, as the best seeds yield

more outturn per acre I will also advise you to - sink wells on all your lands. In the case of the dry lands you know a well is almost a necessity if you wish to raise anything. In the case of wet - lands, you can use the well to irrigate your green manure crop and also raise a crop of ragi or cholam between the harvests of paddy. The Government will assist you by giving advice and loans on application Tenant. A well means Rs.200 or 300. Will it pay to sink one at such a cost?

Landlord.- By sinking a well you are insuring your crop against years of drought and also adding to your yearly outturn of crop. You can also reap a crop of ragi or cholam between the harvests of paddy. Taking drought seasons to recur on the average once in 5 years, the profit of Rs.100 per acre in you can realise with your well in the seasons of drought and the additional crop of ragi or cholam you reap every year to give Rs.20 net profit per year or Rs. 100 in 5 years. You can recoup the cost of your well in 5 years. If you apply to the Government or to some Co-operative Society for a loan you can get it at a low rate of interest. The increase of crop you get every year will pay for the interest or the loan; and as above explained the principal will be wiped off in only 5 years.

Tenant. What further help can I expect from Government?

Landlord. If you apply to the Government Agricultural chemist at Coimbatore, he will analyse your soil for you and give you free advice as to the best manure to be applied, the methods of cultivation to be followed &c. You can also obtain advice as to green manures &c. from the Deputy Director of Agriculture of your circle. The Government Mycologist and Entomologist will advise you as to diseases

and plant pests &c. and how best to prevent or remedy them. The Government also gives advice as to introduction of new crops. e.g., Bankupaddy, Hickary King, Barazillan flour corn &c. If you live near a Government farm you can also pay a visit and learn the methods &c. there practised with success. The manager of the farm will be glad to meet you and explain everything. You can also obtain lands on darkhast, sink a well and raise corn or ragi. If you sink a good well and plant an oil engine you can raise even paddy on your drylands; and by using chemical fertilisers you can raise 5000 lbs = 2000 Madras measures of paddy per acre, as you have seen at Ranipet.

Tenant. So this is what you advise me to do. Viz.,

(1) Sink wells on all lands; applying to the Government or Co-operative Societies for a loan if necessary;

(2) raise green manure crops on wet lands, - plough them in at time of sowing paddy and apply bone-meal or superphosphate.

(3) raise ragi or cholam on dry lands, using manures obtained from manure firms on analysis of soil &c.

(4) If I sink a well on dry land and plant an oil engine I can grow paddy on dry lands also by scientific methods.

(5) I should get the advice of Government officials with regard to soil requirements, plant diseases and pests, methods of cultivation and - manures &c.

(6) apply for darkhast of waste lands and grow food crops thereon.

(Sd) S. Sundarajan

Chingleput.

29/3/1920-

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