TF (2) 19048/19

Directorate of Agriculture Development &
Farmer's Welfare, Vikas Bhavan
Thiruvananthapuram,
Dated: 28.05.2019

Circular

Sub: Annual Plan 2019-20- "Soil and Root Health Management and Productivity Improvement"- Support for Secondary and Micro nutrients - working instructions issued- reg

Ref: 1. G.O (Rt) No. 634/17/AD dated 23.06.2017
2. Order No. TP(2) 7457/18 dated 11.04.2018 of the Director of Agriculture
3. Order No. TP (2) 12928/19 dated 15.05.2019 of the Director of Agriculture

Government have accorded administrative sanction for the implementation of the scheme 'Soil Health Management and Productivity Improvement' during the year 2017-18 for an amount of Rs. 415 lakh under the Head of Account 2401-00-800-28(Plan), of which Rs.250.00 lakh was set apart for the component **"Support to Secondary and Micronutrients."** As per reference 2nd cited above, continuous sanction was accorded for implementation of the scheme component during 2018-19 for an amount of Rs.250 lakh. As per reference 3rd cited above, continuous sanction has been accorded for implementation of the scheme during 2019-20 for an amount of Rs. 203.11476 lakh.

Kerala soils are generally deficient in essential secondary and micro nutrients. These are nutrients used in small quantities and there are seven micro nutrients viz. Zinc, Copper, Boron, Iron, Manganese, Molybdenum and Chloride, which are needed for proper growth and productivity of crops. Calcium, Magnesium and Sulpur are the three essential secondary nutrients. Through soil testing and plant analysis, micronutrient deficiencies can be identified.

The deficiency of Boron is acute and extensive, requiring immediate intervention through Boron supplements. Copper and Zinc are also required in small quantities in most of the soils. Government of Kerala has notified the use of Zinc, Copper and Boron in Kerala Soils and its application level for foliar and soil applications. The joint survey conducted by the State Planning Board and the Department of Agriculture under the "Soil Based Plant Nutrient Management Plan for Agro-Eco Systems of Kerala" reveal that Kerala Soils are deficient in micronutrients. High-yielding crops remove more micronutrients from the soil; hence application of micronutrients is essential to achieve full balanced nutrition for crops.

Soil factors that affect the availability of secondary and micronutrients are organic matter content, soil texture and soil pH. Soils very low in organic matter will usually be deficient in micronutrients. Sandy soils are more likely to show micronutrient deficiencies than clay soils. Micronutrient availability generally decreases as the soil pH increases, with the exception of Molybdenum.

Objectives:

1) The main objective of the scheme is to apply sufficient quantity of Secondary and Micronutrients to overcome their deficiency. Boron deficiency can be avoided by the use of borax (20 kg / ha), Magnesium dificiency by the use of Magnesium Sulphate (80 kg/ha) and Zinc deficiency by the use of Zinc Sulphate (10 kg/ ha). For coconut, 50 gms of Borax, 500 gms of Magnesium sulphate and 50 gms of Zinc Sulphate can be used.

2) To assist farmers in the application of Secondary and micro nutrients thereby increasing the productivity of paddy, coconut, vegetables and spice crop.

Programme:

This programme will be implemented to promote the use and application of Secondary and micro nutrients for better soil status and crop productivity. Among micronutrients, Zinc, Copper and Boron are the only nutrients which are notified by the State Government and so, subsidy can be given only to these micronutrients and secondary nutrients viz., Calcium, Magnesium and Sulphur under the scheme. Assistance @ Rs.500 per ha will be provided to farmers and this programmes will be implemented in an area of 40623 Ha. An amount of Rs.203.11476 lakh is set apart for this component.

The programme will be implemented in 1400 farmer clusters of paddy/vegetable/coconut/spices. Soil/plant analysis will be undertaken in the field of the farmers involved in these cluster groups. Since the Department Soil Testing Labs are equipped with Atomic Absorbtion Spectrophotometer for analysing micronutrients, the soil samples under the scheme will be analysed at the Soil Testing Laboratoties of the Department free of cost.

Supply will be arranged through Agencies like (FACT), Government or quasi Government institutions like Kerala Agro Industries Corporation, RAIDCO and through approved agencies, etc. As the actual input materials are supplied to the farmers through the

cooperative societies/banks or other agencies who are willing to stock and distribute the micronutrient fertilizer to the farmers, the normal issue of subsidy to the farmers through e-payment system will be delinked for the implementation of this scheme. The farmers who avail any assistance from any other scheme for the same purpose will not be considered for this scheme. Micro nutrient mix developed by IIHR Bangalore can also be considered.

Mode of Implementation:

The field level implementation will be done by the Agricultural Officers of the concerned Krishi Bhavans. The purchase of the Secondary and Micro nutrient fertilizers will be arranged by Co-operative Societies/Banks and supplied through farmer cluster, coconut clusters, vegetable clusters and padasekhara samithies through permit system by Krishi Bhavans. Agricultural Officer of the Krishi Bhavan will ensure the quality of the fertilizer supplied. The scheme will be implemented by the Deputy Directors of Agriculture (WM) at the District level and the Assistant Director of Agriculture at Block level.

Monitoring:

Additional Director of Agriculture (CP) will be in charge of the programme at the State level. The Principal Agricultural Officers will monitor and co-ordinate the programme at the district level. Monthly progress report should be furnished to the Director of Agriculture by the 5th of every month.

Financial Outlay:

The finanacial outlay for this programme is Rs. 203.11476 lakh. Assistance @ Rs.500 per ha will be provided to farmers and this programmes will be implemented in an area of 40623 Ha. The district wise physical and financial target is as follows:

Sl. No.	Name of District	Area in Ha	Financial (Rs. in lakh)
1	Thiruvananthapuram	2900	14.5
2	Kollam	2900	14.5
3	Pathanamthitta	2900	14.5
4	Alappuzha	2923	14.61476
5	Kottayam	2900	14.5
6	Idukki	2900	14.5
7	Ernakulam	2900	14.5
8	Thrissur	2900	14.5
9	Palakkad	2900	14.5
10	Malappuram	2900	14.5

11	Kozhikode	2900	14.5
12	Wayanad	2900	14.5
13	Kannur	2900	14.5
14	Kasaragod	2900	14.5
	Total	**40623**	**203.11476**

The total financial requirement of the programme of Rs. 203.11476 lakh can be met from the current years' budget provision under the head of account 2401-00-800-28 Plan.

Sd/-

Director of Agriculture

Copy to:

1. All Princiapl Agricultural Officers
2. Assistant Directors of Agriculture of all districts
3. Agricultural Officers of all Krishi Bhavans
4. TA to Director of Agriculture
5. All Additional Directors of Agriculture
6. DDA, IT Cell (for publishing in the website)
7. Planning section for allotment of funds
8. SW section
9. .Stock file/ Spare

Rajasree 29.5.19

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