

TS(2)8231/2020

Directorate of Agricultural  
Development and Farmers Welfare  
Vikas Bhavan  
Dated: 10/6/2020  
Email: adaplantprotection@gmail.com

### CIRCULAR

Sub: Scheme on Development of Spices – 2020-2021– Working instruction for implementation - orders issued .

- Ref : 1) GO.(Rt)781/2017/AD dated 04.08.2017  
2) Order No TP(2)12925/2019 dated 12/06/19 of Director of Agriculture  
3) Annual plan 2020-21  
4) Circular No.SS1/132(1)2020FIN dated 30/3/2020  
5) Circular No.21/FIN/2020 dated 8/4/2020  
6) G.O(Rt)No.393/2020/Agri dated 22/04/2020  
7) Order No.ADW/478/2020-TP(2)dated 08/06/2020 of Director of Agriculture.

As per the order referred 1<sup>st</sup> Government of Kerala accorded Administrative sanction for Rs.1000 lakhs for the implementation of scheme “**Development of Spices**” during 2017-18 and and continuous administrative sanction accorded during 2019-20 as per reference 2<sup>nd</sup> cited above for an amount of Rs.946.25577 lakhs under H/Ac 2401-00-108-59 Plan.

In the Annual Plan 2020-21 also, the scheme is proposed to be continued with a budget allocation of Rs.1010 lakhs. Out of this an amount of Rs.7.51595 lakhs was allotted for encashment of bills not submitted to treasury upto 31/3/2020 and submitted on or before 18/4/2020 as per circular cited 4<sup>th</sup> above and an amount of Rs.183.4836 lakhs was allotted for encashment of queue bills and BAMS clearance bills as per circular cited 5<sup>th</sup> above. Hence the balance amount available for issuing Administrative sanction during 2020-21 is only 819.00045 lakhs as stipulated in the above mentioned circulars but Administrative Sanction accorded for Rs.669.00045 lakhs for the five continuing components vide reference 7<sup>th</sup> cited.

Spice crops account for a predominant position in the agricultural economy of the state. Kerala holds a supreme position in the production of pepper. Tellicherry Garbled Extra Bold (TGEB) pepper, Cochin ginger (low fibre content), Alleppey Finger Turmeric (AFT), Alleppey Green Extra Bold (AGEB) Cardamom were internationally accepted varieties from Kerala. On the production side, low yield, damage to standards, crop loss due to pests and diseases, post harvest losses and fluctuating prices are causing decline in area and production of spices in the State. Revival of production of spices is essential to improve the livelihood of people as well as to improve foreign exchange earnings. Apart from foreign

exchange earnings, organic spices as well as value added spices are assuming significance. Hence this scheme launched during 2012-13 is being continued during 2020-21 also with a budget allocation of Rs.1010 lakhs under H/ac 2401-00-108-59 Plan.

### **Objectives**

The main objectives of the scheme are:-

- To increase the area of spices particularly pepper, ginger, turmeric, nutmeg and clove by using high yielding and improved varieties.
- Productivity improvement of pepper in Idukki district .
- Assist the farmers in technology adoption for higher production.
- Production of good quality planting materials of high yielding varieties of pepper through decentralised nurseries.
- Popularize location specific HYV developed by farmers.

**The main components of the scheme are**

#### **I.Area Expansion of Pepper (Rs.50 lakhs)**

Establishment of new pepper garden with high yielding varieties of pepper can be undertaken for improving the productivity of pepper. The estimated cost for the establishment of one ha of pepper garden is ₹ 40000/- . An amount of ₹ 20000/- ( limited to 50% of the total cost) is given as subsidy. During the year 2020-21 total area of 250 ha is proposed to be brought under cultivation with improved varieties of pepper. *An amount of Rs. 50.00 lakhs is set apart for this purpose.*

The planting materials required for new planting can be utilised from the Departmental farms, Kerala Agricultural University, Central Government Institutions, Progressive farmers and other approved nurseries.

**The rooted pepper cuttings produced in Department farms during 2020-21 will be supplied to selected districts based on availability. The Principal Agricultural Officers concerned should make necessary arrangements for lifting and distribution of pepper cuttings to krishibhavans immediately. Farm section of the Directorate will issue the statement for allocation of pepper cuttings of departmental farms. If the cuttings from farms are not sufficient, cuttings from approved decentralised nurseries can be arranged at district level. The cost of cuttings from department farms/ decentralised nurseries can be adjusted from the scheme provision and the balance amount to be paid to beneficiaries through e-payment.**

#### **II. Area Expansion of other spice crops (Rs. 40 lakhs)**

##### **a. Ginger / Turmeric (Rs.30 lakhs)**

The main objective is to increase the area of Ginger and turmeric using high yielding and improved varieties, productivity improvement of organic ginger and turmeric and to assist farmers in technology adoption for higher production. The cultivation of ginger and turmeric with high yielding varieties adopting scientific cultural practices will be undertaken for increasing production and productivity.

As far as possible the scheme will be implemented in a compact area on cluster basis so as to supervise the programme effectively. In the case of Ginger and Turmeric the assistance will be 50% of the cost of inputs limited to Rs.12500/- per ha. Assistance will be given for inputs ie for lime, compost/ farm yard manure, wood ash, bio fertilisers and bio control agents . **240 Ha** will be covered during 2020-21 and an amount of **Rs.30 lakhs** is set apart for this component.

**b. Nutmeg/ Clove (Rs.10 lakhs)**

The area expansion programme is aimed to promote cultivation of the locally adapted and improved varieties of nutmeg / Clove. The financial assistance will be extended to farmers for area expansion of nutmeg/ clove using high quality planting materials and to meet cost of inputs for adopting INM/ IPM.

The assistance will be 50% of the cost of inputs limited to Rs.20000/- per Ha for meeting the expenditure on planting material and cost of inputs for INM/ IPDM and other agricultural operations required for the management of crop. An area of 50 Ha will be covered during 2020-21 and an amount of **Rs.10 lakhs** is set apart for this component.

An important problem in nutmeg cultivation is the segregation of seedlings into male and female plants resulting in about 50% unproductive male trees. The only alternative is to adopt vegetative propagation using budded or grafted plants. An ideal plantation should have male and female trees in the ratio 1:10.

Sl No.	Name of spice crop	Physical target (in Ha)	Rate of assistance	Total financial assistance(in lakhs)
1	Pepper	250	50% assistance limited to Rs. 20000 per Ha	50
2	Ginger/Turmeric	240	50% assistance limited to Rs. 12500 per Ha	30
3	Nutmeg/Clove	50	50% assistance limited to Rs. 20000per Ha	10
Total		540 ha		90

**Districtwise targets for area expansion of spice crops are given below**

Sl. No	Districts	Pepper@20,000/ha		Ginger/turmeric @12,500/ha		Nutmeg/clove @20,000/ha		Total amount allotted(lakhs)
		Area(Ha)	Amount (lakhs)	Area (Ha)	Amount (lakhs)	Area(Ha)	Amount (lakhs)	
1	Thiruvanthapuram	10	2	8	1	2	0.4	3.4
2	Kollam	20	4	4	0.5	3	0.6	5.1
3	Pathanamthitta	10	2	8	1	2	0.4	3.4
4	Alappuzha	20	4	15	1.875	2	0.4	6.275
5	Kottayam	20	4	20	2.5	5	1	7.5
6	Idukki	-	-	33	4.125	5	1	5.125
7	Ernakulam	20	4	20	2.5	5	1	7.5
8	Thrissur	40	8	8	1	5	1	10
9	Palakkad	20	4	16	2	1	0.2	6.2
10	Malappuram	20	4	20	2.5	5	1	7.5
11	Kozhikode	20	4	20	2.5	5	1	7.5
12	Wayanad	-	-	52	6.5	-	-	6.5
13	Kannur	35	7	8	1	5	1	9
14	Kasaragod	15	3	8	1	5	1	5
	<b>TOTAL</b>	<b>250ha</b>	<b>50</b>	<b>240ha</b>	<b>30</b>	<b>50ha</b>	<b>10</b>	<b>90</b>

The farmers can purchase high quality planting materials from the departmental farms, central and state research institutions, Kerala Agricultural University and from other approved nurseries or progressive farmers. The quality of the planting materials should be ensured if it is made available through approved nurseries or progressive farmers.

## II. Establishment of Decentralized pepper nurseries. (3 lakhs)

One of the major problems faced by the pepper farmers is the non availability of good quality rooted pepper cuttings. Improved varieties play a significant role in augmenting the yields in any production programme. Effect of inputs applied and good practices followed can be fully realized only with the adoption of improved varieties. To achieve this, good quality planting material has to be made available to pepper farmers. Small scale nurseries with production capacity of 0.5 lakh cuttings per nursery per year can be operated through SHGs, Women Groups, Unemployed youths etc. with technical support from Department of Agriculture, Kerala Agricultural University and Research institutions, Central Government institutions, KVKs etc.

During 2020-21, a total of **10 Nos** of de-centralized nurseries will be established with an assistance @of **Rs 30000 per nursery**. An amount of **Rs. 3 lakhs** is set apart for this purpose.

Sl.No	District	No.of nurseries	Targetted production of pepper cuttings (Lakh Nos.)	Assistance @ ₹30000/nursery (Amount in lakhs)
1	Thiruvanthapuram	1	0.5	0.3
2	Ernakulam	1	0.5	0.3
3	Thrissur	1	0.5	0.3
4	Malappuram	2	1.0	0.6
5	Kozhikode	2	1.0	0.6
6	Wayanad	2	1.0	0.6
7	Kannur	1	0.5	0.3
<b>TOTAL</b>		<b>10</b>	<b>5</b>	<b>3</b>

## IV. Revitalization and rejuvenation of Pepper garden (Rs.177 lakhs)

Revitalization involves gap filling with new pepper vines, replacing damaged standards, carrying out fertilizer/manure and lime application and plantprotection measures with the aim of rejuvenating unproductive and neglected pepper gardens. Financial Assistance of 50% of total cost limited to 10000/ha will be given during 2020-21 for the maintenance of gardens covering an area of 1770 ha for carryingout these activities. For Wayanad district assistance will be provided under Wayanad package.

Farmers will be provided assistance for inputs ie for planting materials, lime, farm yard manure/ compost, plant protection chemicals and bio control agents. An amount of **Rs.177 lakhs** is set apart for giving assistance during 2020-21.

Sl.No	District	Area in ha	Assistance proposed@ 10,000/ha (₹ lakhs)
1	Thiruvanthapuram	42	4.2
2	Kollam	70	7
3	Alappuzha	75	7.5
4	Pathanamthitta	50	5
5	Kottayam	113	11.3
6	Idukki	1000	100
7	Ernakulam	60	6
8	Thrissur	50	5
9	Palakkad	50	5
10	Malappuram	65	6.5
11	Kozhikode	65	6.5
12	Kannur	65	6.5
13	Kasaragod	65	6.5
<b>TOTAL</b>		<b>1770 ha</b>	<b>177</b>

#### IV. Integrated Pepper Development in Idukki (399.00045 lakhs)

Pepper is one of the major spice crop of Kerala. Idukki ranks first both in terms of area and production of Pepper in Kerala covering an area of 42694 Ha as on 2015-16. The scheme of Integrated Pepper development aims at restructuring pepper development activities in Idukki for augmenting production and productivity which can be replicated throughout the state.

#### Objectives

1. To increase production and productivity of pepper.
2. To increase and popularize high yielding planting materials with latest technology.
3. To ensure local availability of quality planting materials by promoting local nurseries.
4. To utilize latest technology in the production of planting materials with high vigour and yield potential.
5. To rejuvenate pepper plantations through proper crop health management.
6. To create model plots adopting latest technology so that farmers get first hand awareness of technology which will enhance the rate of adoption.

## **Project Area**

The activities are proposed to be implemented in all the 53 Gramapanchayaths of Idukki district.

## **Approach**

Cluster approach is proposed in implementing the scheme which will increase efficiency of agricultural practices, instill confidence in the members of the group, ensure adoption of technology and reduce the management cost of gardens as a whole.

## **Components of the programme**

1. Area Expansion of pepper
2. Demonstration of farmer developed varieties
3. Support to secondary and micro nutrient application
4. Support to soil ameliorants application.
5. Prophylactic spraying through Agro Service Centres against Quik Wilt disease.
6. Revitalization of pepper samities
7. Operational expences
8. Travelling expences.

### **1. Area Expansion of Pepper (203 lakhs)**

Establishment of new pepper garden with high yielding varieties of pepper can be undertaken for improving the productivity of pepper. The estimated cost for the establishment of one ha of pepper garden is ₹ 40000/- . An amount of ₹ 20000/- ( limited to 50% of the total cost) is given as subsidy. During the year 2020-21 total area of 1015 ha is proposed to be brought under cultivation with improved varieties of pepper in Idukki district. *An amount of Rs. 203.00 lakhs is set apart for this purpose.*

### **2. Demonstration of farmer developed varieties (1 lakhs)**

There are around 75 no, of pepper varieties in cultivation now. This include both indigenous/local varieties like Aimpiriyan, Kottanandan, Vellamunda and high yielding varieties like Panniyoor series developed in research stations. There are farmer developed varieties also like Aswathy, Suvarna and Pepper Thekken which have special qualities like resistance to particular disease, specific morphological characters (like more number of berries/spike) which gives higher yield etc. Such varieties can be made popular among cultivators through establishing their Demonstration plots. Farmers can visit these plots and get a first hand information on the superior qualities of the variety concerned. This will also be a encouragement and recognition to the farmer who developed it.

*It is proposed to give assistance @Rs.10,000/- to establish a demonstration plot of 0.1 Ha. 10 such plots are proposed for which Rs.1.00 lakhs is set apart.*

### **3. Support to secondary and micro-nutrients cost of inputs and collection of soil samples, transportation etc (5 lakhs)**

Secondary and micronutrients play an important role in crop yield and quality particularly if the soil is deficient in Calcium, Magnesium, Sulphur, Zinc, iron etc.

*An assistance of Rs.500/ha is given towards expenses involved like cost of nutrients and an area of 1000 Ha will be covered during 2020-21 for which Rs. 4.5 lakhs is set apart. An amount of Rs 0.5 lakhs is also set apart for soil sample collection ,transportation analysis etc.*

#### **4. Support to soil ameliorants (47 lakhs)**

It is proposed to cover 870.5 ha under this component to correct soil acidity.

*An assistance of Rs.5400/ha will be given as assistance towards expenses involved like cost of soil ameliorant, its application costs etc. A total amount of Rs. 47 lakhs is set apart for this component .*

#### **5. Prophylactic spraying through Agro Service Centres against Quik Wilt disease. (Rs.130 lakhs)**

Quick wilt, which is a fungal disease, is one of the main reasons for inflicting heavy losses in the pepper production in the traditional pepper producing areas. The fungus attacks both the root system as well as the aerial parts of the pepper plant. The attack on the root system causes complete damage of the plant within months. Control against this disease is achieved by spraying 1% Bordeaux mixture/0.2% Copper oxy chloride or soil trenching with the same @3-5 lts per plant base.

The assistance for adopting integrated disease management practices including cost of lime, Copper sulphate, copper oxy chloride, bio control agents like Trichoderma and Pseudomonas and application charges (labour) will be given subject to a maximum of Rs. 10000/- per hectare. The total area to be covered is **1300 ha** and the total financial allocation is **Rs.130 lakhs**.

The scheme should be implemented on a campaign mode in the affected area by Krishi bhavans including the farmers, pepper samithies, Agro service centers, KVK, Kerala Agricultural University, LSGs etc. Necessary steps would be taken from the part of the department to assure the supply of the required inputs for carrying out the spraying operations.

#### **6. Revitalisation of Pepper samithies (9 lakhs)**

An amount of **Rs 9.00 lakhs** is set apart for revitalisation of 36 **samithies** providing assistance @ **0.25 lakhs/samithy** .The assistance is proposed to be utilised for carrying out basic functions like registration, maintenance of records, for meeting expenses in organising meetings, arranging inputs ,setting up of bio pharmacy etc. Expenditure for activities related to organic farming can also be met from this provision.

#### **7. Operational Expenses including transportation (2 lakhs)**

For effective implementation of the project, operational expenses will be paid for meeting fuel charges of vehicle, training expenses, review meeting ,documentation etc . **An amount of Rs.2 lakhs is set apart for the purpose.**

#### **8. Travelling Expenses (2.00045 lakhs)**

Idukki district has 8 blocks with headquarters at Thodupuzha. For implementing this scheme , extensive field visits are to be conducted for proper supervision and farmers training to be organised for extensive use of bio control agents for Integrated Pest and Disease Management ( IPDM). Hence provision for meeting travel expenses of field staff, Agricultural Officers, Assistant Directors of Agriculture and supervising officers is essential for the effective implementation of the scheme. **An amount of Rs.2.00045 lakhs is set apart for the purpose.**



### Components of Integrated Pepper Development in Idukki

Sl. No.	Component	No. of units	Unit cost (Rs.)	Total required amount (Rs.in lakhs)
	<b>Integrated Pepper Development in Idukki</b>			
a	Area expansion of pepper	1015 ha	20000/Ha	203.00
b	Demonstration of farmer developed varieties	10 plots of unit size of 0.1 ha	10000/ha	1.00
c	Support to secondary and micro nutrients a. Cost of inputs b. Collection of soil samples, transportation, etc.	550 ha	500/Ha	4.50 0.50
d	Support to soil ameliorants	870.5 ha	5400/Ha	47.00
e	Prophylatic spraying through Agro Service Centres against Quik Wilt disease.	1300 ha	10000/ha	130
f	Revitalization of pepper samities	36 samithies	25000/Samithy	9
g	Operational expenses			2.0
h	Travelling Expenses			2.00045
	<b>Total</b>			<b>399.00045</b>

An expert committee with the following persons is constituted for overseeing and guiding the implementation of Integrated Pepper Development in Idukki District and also to ensure quality of the planting material inputs used.

1. Dr.J.Thomas, Director (Rtd) of ICRI, Spices Board
2. Dr. P.J. Joseph, Former Professor of Plant Pathology, Kerala Agricultural University
3. Experts from KVK, Idukki and ICRI, Idukki

#### Financial Outlay

The amount of **Rs.1010.00 lakhs** required for the implementation of the components of this programme can be met from budget provision for the Development of Spices under the head of account **2401-00-108-59 Plan**. Administrative sanction is accorded for Rs.669.00045 lakhs and the working instruction for balance provision of **Rs 150 Lakhs** under the above head of account will be issued after obtaining administrative sanction for the component.

## Abstract of the scheme

Sl. No.	Component	No. of units/ Ha	Unit cost (Rs/unit or ha)	Total amount required (Rs.in lakhs)
I	Area Expansion of Pepper	250	20,000	50
II	Area Expansion of other spice crops			
	a. Ginger / Turmeric	240	12,500	30
	b. Nutmeg/ Clove	50	20,000	10
III	Establishment of Decentralised Pepper nurseries	10 nos	30000/- per unit	3
IV	Revitalization and rejuvenation of Pepper garden	1770 Ha	10,000/- per Ha	177
	Integrated Pepper Development in Idukki			
a	Area expansion of pepper	1015 ha	20,000/Ha	203.00
b	Demonstration of farmer developed varieties	10 plots of unit size of 0.1 ha	10,000/ha	1.00
c	Support to secondary and micro nutrients			
	a. Cost of inputs	550 ha	500/Ha	4.50
	b. Collection of soil samples, transportation, etc.			0.50
d	Support to soil ameliorants	870.5 ha	5400/Ha	47.00
e	Prophylatic spraying through Agro Service Centres against Quik Wilt disease.	1300 ha	10000/ha	130
f	Revitalization of pepper samities	36 samities	25000/Samithy	9
g	Operational expenses			2.0
h	Travelling Expenses			2.00045
	<b>Total</b>			<b>399.00045</b>
	<b>GRAND TOTAL</b>			<b>669.00045</b>

### Mode of implementation

The committed physical and financial targets for the financial year 2019-20 has to be met from the current physical and financial targets for the financial year 2020-21 and the achievements for the financial year has to be made after meeting committed expenditure.

The scheme will be implemented through the Krishibhavans of the selected districts. Wide publicity should be given through mass media. At block level, Assistant Director of Agriculture will co-ordinate and supervise the programme. At the district level, the Deputy Director of Agriculture (H) will be the nodal officer and at the state level, Additional Director of Agriculture (CP) will monitor the programme.

All the assistance to the farmers should be credited to the bank account of the concerned beneficiaries through e-payment.

Principal Agricultural Officers are hereby directed to keep utmost vigil in implementing the scheme and achieve the targets in full. Any willful lapse on the part of any officers in implementing the scheme will be viewed seriously and disciplinary action will be initiated against the officers who are responsible for the lapses and action will be taken to recover the losses.

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The monthly progress report in the prescribed proforma should reach this office on or before 5th of every succeeding month in the name cover of Additional Director of Agriculture (CP). Monthly progress report should invariably contain component wise physical and financial targets and achievements, number of beneficiaries, and the stage of implementation of each component. Since Government is giving emphasis to women participation and gender budgeting maximum efforts have to be made to include women beneficiaries in the scheme. The number of women beneficiaries and the amount utilised for such beneficiaries (component wise) should also be shown separately in the monthly progress report.

Sd/-  
Director of Agriculture

To  
All Principal Agricultural Officers

**Copy to**

1. CA to Director of Agriculture
2. CA to all Additional Directors of Agriculture
3. All Joint Directors of Agriculture at HQ / Senior Finance Officer
4. Planning section for allotment of funds
5. SW Section
6. Finance section
7. TH section for distribution allocation of pepper cuttings of Departmental farms
8. IT Cell for publishing in web site

  
**RAJESWARI, S.R**  
**PLANT PROTECTION OFFICER**  
**AGRICULTURE DEVELOPMENT**  
**& FARMERS WELFARE DIRECTORATE**  
**VIKAS BHAVAN, TVPM-33**