

I/4901/2021

TS (2) 3801/2021

Directorate of Agricultural

Development and Farmers Welfare

Vikas Bhavan

Email:

adaplantprotection@gmail.com

24/05/2021

CIRCULAR

Sub: Scheme on Development of Spices 2021-22 – Working instructions issued .

Ref: 1) GO.(Rt)781/2017/AD dt.04.08.2017

2) G.O (Rt) No.591/2020/Agri dt.29/06/2020

3) Order No. ADW/478/2020-TP(2) dt. 08/06/2020 of Director of Agriculture.

4) Order No. ADW/478/2020-TP(2) dt. 16/02/2021

5) Annual plan 2021-22

6) G.O (Rt) No. 393/2020/AGRI dt.22.4.2020

7) Order No. ADFW/3420/2021- TP2 dt.14/5/2021

As per the order referred 1st Government of Kerala accorded Administrative sanction for the implementation of scheme “**Development of Spices**” during 2017-18 and and vide order 2nd cited above sanction was accorded for the component “Rehabilitation programme for nutmeg in flood affected areas” during 2020-21. Continuous administrative sanction was given for continuing components as per reference 3rd with modifications made vide reference 4th cited.

In the Annual Plan 2021-22 the scheme is proposed to be continued with abudget allocation of Rs.1010 lakhs. Out of this administrative Sanction accorded for continuing components for Rs.960 Lakhs (Nine crores and sixty lakhs only) for the six components vide reference 7th cited.

Spice crops account for a predominant position in the agricultural

I/4901/2021

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), Aleppey Finger Turmeric (AFT), Aleppey 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 2021-22 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.
- Propularize location specific HYV developed by farmers.

The main components of the scheme are

I. Area Expansion of Pepper (Rs.100 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

I/4901/2021

subsidy. During the year 2021-22 total area of 500 ha is proposed to be brought under cultivation with improved varieties of pepper. ***An amount of Rs. 100 lakhs is set apart for this purpose.***

The planting materials required for new planting can be collected 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 2021-22 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 department 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. 54 lakhs)

a. Ginger / Turmeric (Rs.38lakhs)

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 **An area of 304 Ha** will be covered during 2021-22. **Rs. 38 lakhs** is set apart for this component.

I/4901/2021

b. Nutmeg/ Clove (Rs16 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 **80 Ha** will be covered during 2021-22 and an amount of **Rs 16 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.

SI No.	Name of spice crop	Physical target (in Ha)	Rate of assistance	Total financial assistance(in lakhs)
1	Pepper	500	50% assistance limited to Rs. 20000 per Ha	100
2	Ginger/Turmeric	304	50% assistance limited to Rs. 12500 per Ha	38
3	Nutmeg/Clove	80	50% assistance limited to Rs. 20000 per Ha	16
Total		884 ha		154 lakhs

I/4901/2021

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	100	20	12	1.5	3	0.6	22.1
2	Kollam	30	6	8	1.0	4	0.8	7.8
3	Pathanamthitta	20	4	12	1.5	4	0.8	6.3
4	Alappuzha	30	6	20	2.5	4	0.8	9.3
5	Kottayam	40	8	24	3.0	8	1.6	12.6
6	Idukki	-	-	40	5.0	8	1.6	6.6
7	Ernakulam	30	6	24	3.0	6	1.2	10.2
8	Thrissur	60	12	12	1.5	8	1.6	15.1
9	Palakkad	30	6	20	2.5	3	0.6	9.1
10	Malappuram	30	6	24	3.0	8	1.6	10.6
11	Kozhikode	40	8	24	3.0	8	1.6	12.6
12	Wayanad	-	-	60	7.5	-	-	7.5
13	Kannur	60	12	12	1.5	8	1.6	15.1
14	Kasaragod	30	6	12	1.5	8	1.6	9.1
	TOTAL	500ha	100lakhs	304ha	38Lakhs	80ha	16Lakhs	154 Lakhs

I/4901/2021

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.

III. Establishment of Decentralized pepper nurseries. (6 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 2021-22, a total of **20 Nos of** de-centralized nurseries will be established with an assistance @of **Rs 30000 per nursery**. An amount of **Rs 6 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	2	1	0.6
2	Ernakulam	2	1	0.6
3	Thrissur	3	1.5	0.9

I/4901/2021

4	Malappuram	2	1	0.6
5	Kozhikode	3	1.5	0.9
6	Wayanad	4	2.0	1.2
7	Kannur	2	1	0.6
8	Idukki	2	1	0.6
	Total	20		6. lakhs

IV . Revitalization and rejuvenation of Pepper garden (Rs.200 lakhs)

Revitalization involves gap filling with new pepper vines, replacing damaged standards, carrying out fertilizer/manure and lime application and plant protection 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 2021-22 for the maintenance of gardens covering an area of 2000 ha for carrying out 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 **Rs200 lakhs** is set apart for assistance during 2021-22

Sl.No	District	Area in Ha	Assistance proposed@ 10,000/ha (₹ lakhs)
1	Thiruvanthapuram	200	20
2	Kollam	70	7
3	Alappuzha	75	7.5

I/4901/2021

4	Pathanamthitta	50	5
5	Kottayam	110	11
6	Idukki	1000	100
7	Ernakulam	100	10
8	Thrissur	60	6
9	Palakkad	60	6
10	Malappuram	70	7
11	Kozhikode	70	7
12	Kannur	70	7
13	Kasaragod	65	6.5
TOTAL		2000 Ha	200 Lakhs

V. Rehabilitation programme of nutmeg in flood affected areas

It is proposed to implement rehabilitation programme of nutmeg in flood affected areas in Kerala in 250 ha for which Rs 100 Lakhs is earmarked during the financial year 2021-22 under head of account 2401-00-108-59 by providing assistance as given below.

Rehabilitation programme of nutmeg (1 Ha)

Components	Rate (in Rs.)	Quantity	Amount (Rs in lakhs)
Cost of planting material	250/graft	78 No of grafts/ha for replanting	0.195
Cost of farm yard manure, chemical fertiliser, plant protection chemical and spraying charges (LS)	20000/ha	1 ha	0.20
Labour charges towards			

I/4901/2021

planting intercultural operations and unforeseen expenses.			0.210
TOTAL			0.605

Full subsidy for planting materials (limited to Rs.250/- per graft, ie Rs19500/ha) and 50% subsidy for manures, other inputs and labour charges (limited to Rs.20500/-ha) with a total financial assistance of Rs.40000/- per ha will be provided against a total cost of Rs 60500/-per ha under this programme.

Thus an amount of Rs.100 lakhs is earmarked for bringing 250 ha under Nutmeg rehabilitation programme. District wise targets for Rehabilitation Programme of Nutmeg in flood affected areas are as follows.

Sl.No	Name of District	Target area in Ha	Financial Target (Rs in Lakhs)
1	Pathanamthitta	9	3.6
2	Kottayam	40	16.0
3	Idukki	62.5	25.0
4	Ernakulam	50.5	20.2
5	Trissur	60	24
6	Palakkad	9	3.6
7	Malappuram	9	3.6
8	Kozhikkode	10	4
	TOTAL	250Ha	100Lakhs

VI . Integrated Pepper Development in Idukki (Rs.500lakhs)

Pepper is one of the major spice crop of Kerala. Idukki

ranks first both in terms of area and production of Pepper in Kerala. 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, in still 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.

I/4901/2021

5. Prophylactic spraying through Agro Service Centres against Quick Wilt disease.
6. Revitalization of pepper samities
7. Operational expenses
8. Travelling expenses.

1. Area Expansion of Pepper (270 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 2021-22 total area of 1350 ha is proposed to be brought under cultivation with improved varieties of pepper in Idukki district. *An amount of Rs. 270.00 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 indigenus/local varieties like Aimpiriyam, 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 Rs.50 will be provided for soil sample collection, transportation analysis etc.

An area of 1000 Ha will be covered during 2021-22 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 (64.8 lakhs)

It is proposed to cover 1200ha 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. 64.80 lakhs is set apart for this component.

5. Prophylactic spraying through Agro Service Centres against Quick Wilt disease of pepper . (Rs.144.20 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 litre per plant base.

The assistance for adopting integrated disease management practices

I/4901/2021

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 **1442 ha** and the total financial allocation is **Rs.144.20 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 (Rs 10 lakhs)

An amount of **Rs 10.00** lakhs is set apart for revitalisation of 40 **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 (3 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

I/4901/2021

for the effective implementation of the scheme. An amount of Rs. 3 lakhs is set apart for the purpose.

Components of Integrated Pepper Development in Idukki

Sl. No.	Component	No. of units	Unit cost (Rs.)	Total amount (Rs.in lakhs)
	Integrated Pepper Development in Idukki			
a	Area expansion of pepper	1350 ha	20000/Ha	270.00
b	Demonstration of farmer developed varieties (0.1Ha plots)	10 no.s	10000/ha	1.00
c	Support to secondary and micro nutrients			
	1. Cost of inputs	1000ha	450/ha	4.50
	2. Collection of soil samples, transportation, etc.	1000ha	50/ha	0.50
d	Support to soil ameliorants	1200 ha	5400/Ha	64.80
e	ProphylaticsprayingthroughAgroService Centres against Quik Wilt disease.	1442 ha	10000/ha	144.20
f	Revitalization of pepper samities	40 samithies	25000/Samithy	10.00
g	Operational expenses			2.0
h	Travelling Expenses			3.0
	Total			500.00 Lakhs

An expert committee with the following persons is constituted for overseeing and guiding the implementation of Integrated Pepper Development

I/4901/2021

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

An amount of for **Rs.960 Lakhs** under the head of under the H/ac account **2401-00-108-59 Plan is set apart** for the continuing components under Development of Spices. Component wise breakup are as follows

Abstract of the scheme

Sl. No.	Component	No. of units/ Ha	Unit cost (Rs/unit Ha) or	Total amount required (Rs.in lakhs)
I	Area Expansion of Pepper	500Ha	20,000/Ha	100.00
II	Area Expansion of other spice crops			
	a. Ginger / Turmeric	304Ha	12,500/Ha	38.00
	b. Nutmeg/ Clove	80Ha	20,000/Ha	16.00
III	Establishment of Decentralised Pepper nurseries	20 nos	30000/-one nursery	6.00
IV	Revitalization of Pepper gardens	2000 Ha	10,000/ Ha	200.00
V	Rehabilitation programme of nutmeg in flood affected areas	250ha	40,000/Ha	100 .00
VI	Integrated Pepper Development in Idukki			
	A. Area expansion of pepper	1350 Ha	20,000/Ha	270.00
	B. Demonstration of farmer developed varieties- unit size 0.1 ha	10	10,000/unit	1.00

I/4901/2021

	C. Support to secondary and micro nutrients			
	1. Cost of inputs	1000 Ha	500/Ha	4.50
	2. Collection of soil samples, transportation, etc.	1000 Ha	500/Ha	0.50
	D. Support to soil ameliorants	1200 Ha	5400/Ha	64.80
	E. Prophylactic spraying through Agro Service Centres against Quick Wilt disease.	1442 Ha	10000/Ha	144.20
	F. Revitalization of pepper samities	40 samithies	25000 /Samithy	10.00
	G. Operational expenses			2.00
	H. Travelling Expenses			3.00
	GRAND TOTAL			960.00 Lakhs

Mode of Impementation

As per G.O under ref 6th fund allocation for schemes have to be provided AEU wise. There for Districts are directed to allot target for each component AEU wise and informed to the Directorate.

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 directed to keep utmost vigil in implementing the scheme and achieve the targets in full. Any wilful 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

I/4901/2021

the lapses and action will be taken to recover the losses.

The monthly progress report in the prescribed proforma should reach this office on or before 5th of every succeeding month . 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.

DIRECTOR

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