

**DIRECTORATE OF AGRICULTURE DEVELOPEMENT AND  
FARMERS WELFARE DEPARTMENT,  
THIRUVANANTHAPURAM**

No: ADFW/3058/2022-TH2

**CIRCULAR**

Date: 25/08/2022

Sub:- Annual Plan 2022-23 Scheme 'Coconut Development' -  
Component - Coconut procurement and seedling production -  
H/A: 2401-00-103-87-Plan - Working instructions issued - reg.

Ref:- 1) GO(Rt) No. 722/2022/Agri dated: 09.08.2022 of Agriculture  
(PB) Department.

2) Letter No. ADFW/4104/2022-TP2 Dated: 27.05.2022.

Government of Kerala vide order read as 1st above, have accorded administrative sanction for the scheme "Coconut Development" for an amount of Rs. 7390 lakhs under the H/A: 2401-00-103-87 Plan. Out of this, an amount of Rs. 1730 lakh is set apart for the implementation of the scheme component "Coconut seednut procurement & Seedling production".

There is always a high demand for good quality coconut seedlings, produced in the Departmental farms and supplied through the Krishi Bhavans. There is a separate wing within the Department for the procurement of quality seednuts from farmer's field. The main seednut procurement units are Seed Development Unit, Vadakara, Seed Development Unit, Chavakkad, TxD Pollination Unit, Chalod and Seed Garden Complex, Munderi. Coconut Seednut Procurement is also carried out at Perumpadappa region of Malappuram district and in other selected Departmental Farms.

**The main components under Coconut seednut procurement & Seedling production are as follows:**

Sl No	Item	Amount (Rs. in lakh)
1	Coconut seednut procurement	
A.	Procurement of WCT seednuts – 16.5 lakh nuts	
	a. Procurement of 10.68 lakh nuts @ Rs.70	747.60
	b. Procurement of 5.82 lakh nuts @ Rs.48	
	(Cost adjusted from ERCN scheme @ Rs.22/nut for the procurement of 5.82 lakh nuts – Rs.128 lakh)	279.36
B.	Procurement of Hybrid seednuts – 2 lakh seed nuts	
	Procurement of 2 lakh hybrid nuts @ Rs.75	150.00
C.	Procurement of dwarf seed nuts	
	1.5 lakh @ Rs.70/nut	105.00
	<b>Sub-Total</b>	<b>1281.96</b>
2	Transportation of coconut seednuts	100.00
		85.00

3	Operational expenses of SD units & pollination units	85.00
4	Tagging of coconut seedlings & miscellaneous expenses	50.00
5	Honorarium for Supervisory Staff	86.00
6	Insurance for pollination workers	0.15
7	Revitalisation of SGC Munderi	50.00
8	Raising germplasm of dwarf coconut palms with microirrigation system in selected Departmental farms, Jails & other Public Sector Undertakings	20.00
9	Establishment of Pollen Preservation Units	2.00
10	Training (for pollination workers & Supervisory Staff)	5.00
11	Nursery Expenses	49.89
<b>TOTAL</b>		<b>1730.00</b>

### **1. Coconut Seednut Procurement – Rs. 1281.96 lakh**

It is proposed to procure 20 Lakh Coconut seednuts including 16.5 lakh seednuts of WCT, 2 lakh seednuts of Hybrids and 1.5 lakh dwarf seednuts during 2022-23. The prevailing rate of procurement is Rs.70/nut for WCT/Dwarf and Rs.75/nut for hybrid seednuts. The district wise target is as shown below.

#### Procurement of Dwarf Seednuts @ Rs.70/seednut - Targets

Name of District	Procurement Targets (in lakh nos.)	Amount Allotted (Rs. in lakh)
TVM	0.08	5.6
KLM	0.08	5.6
ALPY	0.08	5.6
PTA	0.08	5.6
KTM	0.08	5.6
IDKY	0.03	2.1
EKM	0.08	5.6
TSR	0.40	28
PKD	0.15	10.5
MLPM	0.2	14
KKD	0.08	5.6
KNR	0.08	5.6
KSGD	0.08	5.6
<b>TOTAL</b>	<b>1.5</b>	<b>105</b>

#### Procurement of WCT Seednuts @ Rs.70/seednut - Targets

--	--	--	--

Name of District	No. of Seednuts to procure (Lakh No.)	Amount allotted (Rs in lakh)	Amount already allotted under ERCN through PFMS (Rs. in lakh)
TSR	3	188	22
MLPM	0.3	21	
KKD	12	756 (limited to 755.96)	84
KNR	1.2	62	22
<b>TOTAL</b>	<b>16.5</b>	<b>1027(limited to 1026.96)</b>	<b>128</b>

Procurement of Hybrid Seednuts @ Rs.75/seednut- Targets

Name of District	No. of Seednuts to procure (Lakh No.)	Amount allotted (Rs in lakh)
TSR	1.16	87
MLPM	0.04	3
KNR	0.8	60
<b>TOTAL</b>	<b>2.0</b>	<b>150</b>

The department will procure quality coconut seednuts from selected farmers field, Departmental farms etc, utilising the existing coconut seed procurement system and raise in departmental farms for the production of quality coconut seedlings. Seed development unit Vadakara(AEU-2,11,15) Seed development unit, Chavakkad(AEU-2) and TXD Unit, Chalod(AEU-2,7,11) are entrusted with the procurement of seednuts and hybridisation activities of respective districts. At Malappuram district, the hybridisation activities at Perumpadappa region(AEU-6) and SGC Munderi shall be monitored by ADA Perumpadappa and DDA SGC Munderi respectively. ADA(CD) Thrissur should co-ordinate the hybridisation and procurement activities of Malappuram district.

The Coconut Development Board (CDB) Scheme 'Establishment of Regional Coconut Nurseries' (ERCN) will be integrated with this scheme and nut cost will be adjusted from this scheme also. Under ERCN, Rs.128 lakh is available for the production of 4 lakh no. of quality coconut seedlings with 50% Board's share and 50% State Share. For the production of 4 lakh number of coconut seedlings, the number of coconut seednuts to be procured is 5.82 lakh (considering the recovery percentage as 65-70% for WCT). For this 5.82 lakh nuts, Rs.22/WCT seednut can be met from the CDB share and balance amount of Rs.48/- per WCT seednut from the State share. Seed development units Vadakara, Chavakkad & TxD Pollination unit Chalode should follow the working instructions of Establishment of Regional Coconut Nursery 2021-22 (ADFW/707/2022-TH2 dated: 27.04.2022) for the utilisation of funds under ERCN, which is credited to the PFMS account.

Abstract - Seednut Cost (Rs. in lakh)

Sl. No	Components	State Share	ERCN
1	Dwarf	105	
2	Hybrid	150	
3	WCT	1026.96	128
	<b>TOTAL</b>	<b>1281.96</b>	<b>128</b>

**2. Transportation of coconut seednuts – Rs.100.00 lakh**

The seednuts collected in the procurement centres have to be transported to the farms for sowing. An amount of Rs. 100 lakh is proposed to be set apart for meeting the transportation expenses of seednuts. The transportation of coconut seednuts within the districts and inter districts should be carried out by abiding tender formalities.

The district wise allotment of funds are as follows

Sl.No	Name of PAO	Amount(Rs in lakh)
1	TVM	0.25
2	KLM	0.25
3	ALP	0.25
4	PTA	0.25

5	KTM	0.25
6	IDKY	0.05
7	EKM	0.25
8	TSR	25.0
9	PKD	0.40
10	MLPM	2.00
11	KKD	64.8
12	KNR	6.00
13	KSGD	0.25
<b>TOTAL</b>		<b>100</b>

### **3. Operational Expenses of Seed Development Units and Pollination Units – Rs.85.00 lakh**

It is proposed to set apart an amount of Rs.85.00 lakh for meeting the operational expenses of Seed Development Units and Procurement Centres.

An amount of Rs.85.00 lakh is earmarked for meeting the operational expenses of Seed Development Units (SDU) and Pollination unit. The seed development units at Chavakkadu in Thrissur district and vadakara in Kozhikkode district and also TXD Pollination unit at Chalode at Kannur district are involved in coconut seednut procurement programme. An amount of Rs.85 lakhs is earmarked for meeting the operational expenses of these units. This amount can be utilised for the purchase of computer, printer, laptop, office furniture, purchase of refrigerators, electronic scale, microscopes etc. for pollination units, maintenance of pollen storage rooms, paint, coir, banding, numbering, sealing charges, building rent, hiring of vehicles, fuel charges, urgent minor repair of vehicles engaged in seednut transportation etc. and all other operational expenses in connection with coconut seednut procurement.

Sl.No	Name of PAO	Amount(Rs in lakh)
1	Thrissur	10
2	Kozhikkode	65
3	Kannur	10
	<b>TOTAL</b>	<b>85</b>

### **4. Tagging of coconut seedlings and miscellaneous expenses – Rs.50.00 lakh**

The coconut seedlings distributed under coconut development council programme is tagged for its traceability. An amount of Rs. 50 lakh is proposed for meeting the printing charges of tags and for meeting the miscellaneous expenses in connection with coconut seed nut procurement. The coconut seedlings distributed under Coconut Development Programme is tagged for Traceability. The tags are printed and distributed by Kerala Books & Publishing Society (KBPS, Kakkanad, Ernakulam) or C-apt (Kerala State Centre for Advanced Printing & Training).

Sl No	District	Amount(Rs in lakh)
1	TVM	3
2	KLM	3
3	ALP	2.5
4	PTA	0.5
5	KTM	0.6
6	IDKY	0.5
7	EKM	5.0
8	TSR	7.0
9	PKD	4.0
10	MLPM	6.0
11	KKD	9.65
12	KNR	8.0
13	KSGD	0.25
<b>TOTAL</b>		<b>50</b>

#### **5. Revitalisation of SGC Munderi – Rs.50.00 lakh**

It is proposed to plant 2000 nos. of true cultivars of dwarf palms in SGC Munderi for future hybridisation activities. The old and senile palms needs to be removed and revitalised into a model coconut seed farm. Rs. 50 lakh is proposed for the revitalisation activities of SGC Munderi.

Amount allotted to PAO, Malappuram - Rs.50 lakh

#### **6 .Raising germ plasm of dwarf coconut palms in other selected Departmental farms, Jails, Public Sector undertakings etc - Rs.20.00 lakh**

Inorder to ensure the availability of promising DxT coconut hybrid in future,

it is proposed to raise germ plasm of different dwarf cultivars of coconut in 10 ha area of selected Departmental farms, Jails, Public Sector Undertakings etc. with adequate microirrigation facilities, and maintain as a model plot. An amount of Rs.20 lakh is proposed for raising germ plasm collection in 10 ha area on a project mode. An MoU will be signed with Jails/ Public Sector Undertakings for the procurement of nuts.

Dwarf coconut seedlings procured from authentic sources like the CPCRI, KAU, other State Agricultural Universities and other reliable sources will be utilized for the programme. An amount of Rs. 20 lakhs is set apart for this purpose .Sign boards indicating the variety and date of planting should be exhibited in the field. The Principal Agricultural Officers should select the farms or other institutions for raising the germplasm and report.

The district wise target is shown below:

Sl.No	District	Area	Amount (Rs. in lakh)
1	TVM	2.0	4.0
2	KLM	0.5	1.0
3	ALP	0.5	1.0
4	KTM	0.5	1.0
5	EKM	0.5	1.0
6	TSR	2.0	4.0
7	PKD	0.5	1.0
8	MLPM	0.5	1.0
9	KKD	0.5	1.0
10	KNR	2.0	4.0
11	KSGD	0.5	1.0
	<b>TOTAL</b>	<b>10.0</b>	<b>20.0</b>

#### **7. Establishment of Pollen Preservation Units – Rs.2.00 lakh**

CPCRI has developed techniques like Cryopreservation of pollen grains. An amount of Rs. 2 lakh is provided for the establishment of pollen preservation unit attached to the SDU. ADA(CD), Thrissur should coordinate with CPCRI for the establishment of pollen preservation unit at Seed Development Unit, Chavakkad.

Amount allotted to PAO, Thrissur - Rs. 2 lakh

## 8. Training - Rs.5.00 lakh

### Training for pollination workers – Rs.1.00 lakh

Hybridisation in coconut is a cumbersome process which involves climbing of coconut palms in order to carryout pollination.As part of the Departmental aided project ‘Large scale production of Elite and Hybrid seedlings for coconut root wilt prevalent tract’ CPCRI,Kayamkulam has developed ground pollination techniques which will make the pollination work much easier.An amount of Rs.1 lakh is set apart for imparting training to ground pollination technique and other activities in connection with the seednut procurement programme.The training should be conducted with the involvement of CPCRI,Kayamkulam/Kasargod. Training should be arranged at Chavakkad area of Thrissur district and at TxD Pollination unit, Kannur.

Sl.No	Name of PAO	Amount allotted (Rs. in lakh)
1	Thrissur	0.5
2	Kannur	0.5
	<b>TOTAL</b>	<b>1.0</b>

### Training for Supervisory staff for the identification of dwarf mother palms and true to type WCT palms – Rs.4.00 lakh

Training should be imparted to the supervisory staff for the identification of dwarf mother palms & True to type WCT palms. The training should be conducted with the involvement of CPCRI,Kayamkulam/Kasargod or experts from KAU.

Sl.No	Name of PAO	Amount allotted (Rs. in lakh)
1	Thiruvananthapuram	0.5
2	Kottayam	0.5
3	Ernakulam	0.5
4	Palakkad	1.0
5	Malappuram	0.5
6	Kozhikode	1.0
	<b>TOTAL</b>	<b>4.0</b>



## 9. Nursery Expenses - Rs.49.89 lakh

An amount of **Rs.49.89 lakh** is earmarked for meeting the nursery expenses for the production of quality coconut seedlings.

This amount can be utilized for site clearing, purchase of inputs in connection with coconut seedling production, establishing and maintaining irrigation systems, providing temporary shade,/ pandal etc. All expenses right from the sowing of seednuts in the nursery till distribution can be met from the nursery expenses. The amount allotted can be utilised by all departmental farms involved in coconut seedling production.

Principal Agricultural Officers should ensure that the maximum coconut seedling production capacity of all the farms in their districts have been attained, by utilizing the funds allotted for nursery charges.

The district wise allocation of funds for nursery charges is as follows.

Sl.No	Name of PAO	Amount allotted(Rs in lakh)	
1	TVM	4.89	
2	KLM	4.0	
3	ALP	4.0	
4	PTA	2.0	
5	KTM	2.0	
6	IDK	2.0	
7	EKM	4.0	
8	TSR	6.0	
9	PKD	6.0	10.1
10	MLPM	5.0	
11	KKD	4.0	
12	KNR	5.0	
13	KSGD	1.0	
	<b>TOTAL</b>	<b>49.89</b>	

The detailed instructions for the components honorarium for supervisory staff and insurance for pollination workers will be issued separately after getting concurrence from Finance Department.

### General Guidelines

1. The selection of mother palms for seednut procurement should be as per

the guidelines given in the package of practices recommendations of Kerala Agricultural University/Manual for coconut nurseries of the Department of Agriculture.

### **Procurement of WCT Seednuts**

Gardens having palms with the record of consistently high yield and containing high proportion of heavy bearers and situated under average conditions without heavy manuring or irrigation and free from pest and diseases are to be selected. The willingness of the garden owners be obtained in the prescribed proforma.

### **Numbering of Gardens and Mother Palms :**

The Agricultural Assistants engaged in the selection of mother palms will first inspect all the trees in a selected garden. The trees should be identified and chalk marked. Then the mother palms so identified in each garden should be given a circular band with yellow paint ( 5 cm width ) around the tree at a height of about 1.5 M above the ground level so that the mother palms can be located from any part of the garden. The serial number of the trees and the garden numbers are to be written with red paint. The Tree number and garden number should be marked as shown ( Tr.No/ G.No).

Garden number need be written only on trees for those having numbers in multiples of ten. All the last tree number in the garden should have tree number and garden number .For banding and numbering semi skilled laborers can be employed.

All the above process have to be monitored by Agricultural Assistants.

The Agricultural Assistants should record all the information related to the of mother palm in the mother palm register , and should be attested by him.The Agricultural officer in charge of the region should inspect all the mother palms selected by the Agricultural Assistant and if any undesirable tree selected selection should be rejected. The rejected tree number will be rounded with red ink in register.

Only a reasonable percentage of rejection is allowable The concerned Agricultural Assistant will be held responsible for too much of rejection if noticed.

Marking of the mother palms should be started from 1st November 2022 and

completed before 31st December.

### **Harvesting of Seed Coconuts:**

Harvest of seed nuts will start from 1st week of January 2023 and will be completed before 31st May 2023. During this period 2 to 3 rounds of harvest will be taken in such a way that 10 nuts will be obtained in the 1st round, 10 to 15 nuts in the second and third round. Single fully matured bunch should be harvested at time. The seed nut selected should be above 11 month old. A minimum of 30 days interval should be given between two harvests. Agricultural Assistants should record all the relevant details of harvest in the field notebook and the same should be recorded in the mother palm register maintained in the office on the same day itself.

### **Selection of Nut:**

Care should be taken in the selection of good quality seed nuts from the selected mother palms. Only fully matured, medium sized seed nuts will be selected. Fruit weight should be more than 400 g and spherical or oblong in size and shape. Undersized and oversized nuts should be rejected at the time of inspection of harvest and also while loading the seed nuts in lorries for despatch. The selection of nuts are to be done by engaging skilled masdoor. The selection should be done only in the presence of Agricultural Assistants

### **Sealing of Nuts :**

As soon as the nuts are selected it should be sealed using sealing hammers on all the segments at the distal end of the nut. The sealing of nuts should be done legibly else will be returned to the procurement centre. In case the sealed nuts are to be rejected, the sealing should be cancelled by sealing cross wise over the seal already marked.

The maximum number of seednuts that can be procured from a selected palm during the entire period of procurement is fixed as a maximum of 25 (Twenty five).

### **Procurement of Dwarf seednuts.**

The dwarf palms should be identified based on the following characteristics

- a. The trunk base of dwarf palms will be comparatively thinner than the tall, with narrow base.
- b. The leaf scars on the trunk will also be much closer than that of tall.

- c. The palms will be much shorter in stature.
- d. The leaf arrangements will be much closer with thin and short petioles and narrow and thin leaf blades.
- e. There is always overlapping of male and female phases.
- f. Retention of unfertilised female flowers is generally noticed in dwarf palms.
- g. dwarf palms can be identified by their typical colour also.

Regarding the procurement of dwarf seednuts, harvesting of seed nuts by farmers will be done under the direct supervision of Agricultural Assistants in Krishi Bhavans and selected nuts should be sealed and stored as per the procedure at one point. As soon as the nuts are selected, the same should be sealed using sealing hammers on the entire segment at the distal end of the nuts. Seed nuts without sealing should not be taken for sowing and the same will be rejected and returned. In case the seed nuts are to be rejected the sealing should be cancelled by sealing cross wise over the seal already marked. The Agricultural Officers/ Agricultural Field Officers should monitor the programme at Panchayat/Municipality/Corporation level and inform the progress to the Assistant Director of Agriculture concerned. After the harvest of the day is over, the Agricultural Assistants should physically verify the total number of nuts recorded in the field note book. This must tally in all the cases. The Agricultural Assistants should post their entries in the mother palm register maintained in the office on the same day itself. Under no circumstances this should be postponed. Since the dwarf seed nuts need to be sown within 15- 20 days. make sure that the dwarf seed nuts procured reach the Coconut Nurseries/Farms where are to be sown within this time limit. The staff at Krishi Bhavanr/Assistant Dilector of Agriculture/ Farm Officers/ Deputy Director of Agriculture should be vigilant in this aspect at appropriate level. Transportation cost will also be provided for seed procurement based on store purchase rules.

#### **Procurement of Hybrid seednuts**

Utmost care should be taken for the selection of parent palms for hybridization. In every garden the palms selected should be serially numbered and physically watched to spot out the inflorescence nearing opening. The

date of opening should be carefully watched and recorded. Emasculation should be done in time and immediately after emasculation the inflorescence is enclosed in a close meshed cloth bag to prevent contamination with other pollen. The pollen collected from the male parent should be dusted on the stigmatic end of female flower during the receptive stage of flower which is judged from the secretion of nectar and splitting of female stigmatic end. Each female flower has to be pollinated 3 days consecutively and the process has to be repeated till the last flower at the base of the inflorescence become receptive. The cloth bag can be removed after a week of pollination of last flower. The bunch should be immediately labeled noting the parent material used for crossing. The hybrid nuts developed will be ready for harvest after 11 months from the date of pollination.

December to May is the ideal time for carrying out pollination work.

The DXT nuts collected should be transported to the nurseries without any time gap as it will affect the germination due to drying up of water.

The details of pollination and hybridization works undertaken should be properly entered in registers maintained at field offices. Maximum number of dwarf mother palms of the locality/farms should be identified for carrying out hybridization works for the production of hybrids.

Proper registers and records must be kept at the Krishi Bhavans/procurement centres in connection with the selection of mother palms, procurement of and payment of seed nut cost to farmers.

### **Supervision**

All the palms selected for Dwarf seednut procurement under the programme should be periodically inspected by both Agricultural Officers and Agricultural Assistants. The Assistant Director of Agriculture at block level should closely watch the implementation of the programme and should ensure that a minimum of 10% of the plots are inspected by them. In the case of WCT and Hybrid seednut procurement SAO, Seed Development unit and Pollination unit should visit 20% of palms selected by Agricultural Assistants/Agricultural officers. Deputy Director of Agriculture (YP)

in charge of the scheme at District level should inspect 5% of the plots. The Principal Agricultural Officers of the districts should visit at least 1% of the gardens/plots.

It should be ensured that the palms are selected according to the guidelines specified. In the case of erring officers, appropriate actions should be initiated/ recommended to higher officials at state level.

Additional Director of Agriculture (Farms) is monitoring the scheme at state level. The Principal Agricultural Officers should submit weekly report of the programme to the Additional Director of Agriculture (Farms) in his name cover/ agrifarmsth@gmail.com. Any difficulties or bottle necks in the implementation of the programme should be brought to the notice of the Director of Agriculture or Additional Director of Agriculture (Farms) or Joint Director of Agriculture (Farms) and get it cleared then and there.

The expenditure towards the implementation of the scheme will be met from Rs.1730 lakh earmarked for the component "coconut seednut procurement and funds for departmental farms for coconut seedling production and nursery expenses" under the Head account: 2401-00-103-87 Plan from current year's budget provisions.

District	Seed Cost	Transportation	Op. exp	Tags & Miscellaneous	Revitalisation of SGC	Raising Germ Plasm	Pollen preservation unit	Training	Nursery expense	Total
TVM	5.6	0.25		3		4.0		0.5	4.89	18.24
KLM	5.6	0.25		3		1.0			4.0	13.85
ALP	5.6	0.25		2.5		1.0			4.0	13.35
PTA	5.6	0.25		0.5					2.0	8.35
KTM	5.6	0.25		0.6		1.0		0.5	2.0	9.95
IDK	2.1	0.05		0.5					2.0	4.65
EKM	5.6	0.25		5.0		1.0		0.5	4.0	16.35
TSR	303	25.0	10	7.0		4.0	2.0	0.5	6.0	357.5
PKD	10.5	0.40		4.0		1.0		1.0	6.0	22.9
MLPM	38	2.00		6.0	50	1.0		0.5	5.0	102.5
KKD	761.56	64.8	65	9.65		1.0		1.0	4.0	907.01
KNR	127.6	6.00	10	8.0		4.0		0.5	5.0	161.1
KSGD	5.6	0.25		0.25		1.0			1.0	8.1
<b>TOTAL</b>	<b>1281.96</b>	<b>100</b>	<b>85</b>	<b>50</b>	<b>50</b>	<b>20.0</b>	<b>2.0</b>	<b>5.0</b>	<b>49.89</b>	<b>1643.85</b>

Sd/-


SUBHASH T.V. IAS  
DIRECTOR

To

- 1) All Principal Agricultural Officers

Copy to

1. All Additional Directors of Agriculture
2. All Joint Directors in HQ
3. Planning Section/TA to Director of Agriculture
4. DDA(IT) for publishing in the website
5. SW Section for updation in plan space

  
Joint Director of Agriculture  
Directorate of Agriculture Development (Farmer's Welfare Department)  
Vijaya Bhavan, Vijaya - 53