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**KERALA AGRICULTURAL UNIVERSITY**

Proceedings

KAU – DoR -- Cocoa Research Centre – Continuance of Mondelez – KAU Co-operative Cocoa Research Project from 2018-19 to 2020-21 – Revised Administrative and Technical Sanction Accorded - Orders issued.

**DIRECTORATE OF RESEARCH**

No.R2/61366/07 (i)

Dated, Vellanikkara, 20/02/2019

Read: 1) This office order of even no. dated 08/02/2016 and 13/06/2018

2) Letter no. CRC-CCRP-1/2018 dated 06/02/2019 of the Professor and Head, Cocoa Research Centre, Vellanikkara.

3) e-mail dated 11/02/2019 of the Professor and Head, Cocoa Research Centre, Vellanikkara.

**ORDER**

As per the reference read as 1<sup>st</sup> above, Administrative and Technical Sanction were accorded for continuance of Mondelez Cocoa Research Project from 01/03/2015 to 28/02/2021 under the Principal Investigatorship of Dr.B.Suma, Professor and Head with the following staff pattern.

Professor (Horticulture)	- 1 No.
Assistant Professor (Plant Breeding)	- 1 No.
Assistant	- 1 No.
Farm Manager	- 1 No.
LDV Driver	- 1 No.
Class IV	- 1 No.

Based on the proposal forwarded, Mondelez agreed to continue the project from 01/03/2018 to 28/02/2021 with certain conditions and a Memorandum of Understanding had been executed with Mondelez and consented to release 59000 US\$ every year. Besides Mondelez has agreed to provide 10000 US\$ during first year for visit abroad for two scientists working at the centre and 30000 US\$ each during second and third year for equipments for establishing molecular biology lab to strengthen the biotechnology work as shown below.

**Financial outlay for the programme 2018-2021 (USD)**

Sl. No	Particulars	Year I 2018-19 (US\$)	Year II 2019-20 (US\$)	Year III 2020-21 (US\$)	Project Total (US\$)
1	Operational cost	57,500	57,500	57,500	172,500
2	Publishing charges for research paper in reputed journal	1500	1500	1500	4500
3	Visit abroad for two scientists	10,000	-	-	10,000
4	Establishment of molecular biology lab-contribution from Mdlz	-	30,000	30,000	60,000
	<b>Total contribution from Mdlz</b>	<b>69,000</b>	<b>89,000</b>	<b>89,000</b>	<b>2,47,000</b>

As per the reference read 3<sup>rd</sup> above, the Professor and Head requested to accord sanction to appoint four Research Assistant with following discipline to support various experiments as per the approved proposal for a period of two year.

- 1) M.Sc Botany/Plant Breeding/Horticulture
- 2) M.Sc Microbiology/Plant Pathology
- 3) M.Sc in Biotechnology with specialization in Molecular Biology
- 4) M.Sc in Community Science with specialization in product development

The Professor and Head also informed that a provision is given in the budget for a purchase of a pickup van for the transportation of materials for manuring and spraying in the Cocoa Farm without exceeding the limit and without affecting the project work. The details of budget provision required for 2018-19 is given below.

**Statements showing the details of budget requested for 2018-19.**

Head of Account	2018-19 (Revalidation obtained)	2018-19 (Amount received from Mondelz)	2018-19 (Total budget provision requested)	Expenditure incurred during 2018-19 (upto 31/01/2019)	Balance
141-Cost of PL	1000		1000		1000
142-Cost of labour	7167	1400000	1401767	527369	874398
153-Salary of contractual staff	276660	900000	1176660	560140	616520
210-Research materials	1800	400000	401800	1782	400018
222-OE&M	3891	10000	13891	2973	10898
236- Electricity Charge	90934	200000	290934	75654	215280
237- Postage Charges	4000	565	4565	500	4065
300-TA	3010	22000	25010		25010
332-Maintenance of vehicle	80504	50000	130504	55554	74950
333-Fuel charges of vehicle	24583	50000	74583	23585	50998
422-Maintenance of equipments	22640	100000	122640	19831	102809
840-Other item	255	100000	100225	44050	56200
921-Farm Development		100000	100000		100000
924-Vehicle	9824	700000	709824	4500	705324
120-Equipments					
<b>One time grand</b>					
-Visit abroad		701300	701300		701300
-publishing paper in reputed journal		105200	105200		105200
<b>TOTAL (RS.in lakhs)</b>	<b>526268</b>	<b>4839065</b>	<b>5365333</b>	<b>1315929</b>	<b>404940</b>

As per the reference read as 2<sup>nd</sup> above, Professor and Head has requested to issue Administrative and Technical Sanction for the continuance the project to another three years from 01/03/2018 to 28/02/2021.

Under the circumstance the following orders are issued.

- 1) Administrative and Technical Sanction are hereby accorded for continuing Mondelez Cocoa Research Project from 01/03/2018 to 28/02/2021 with the following staff pattern and the budget shown below.

Professor (Horticulture)	- 1 No
Assistant Professor (Plant Breeding)	- 1 No
Assistant	- 1 No
Farm Manager	- 1 No.
LDV Driver	- 1 No
Class IV	- 1 No.

**Financial outlay for the program 2018-2021 (USD)**

Sl. No.	Particulars	Year I 2018-19 (US\$)	Year II 2019-20 (US\$)	Year III 2020-21 (US\$)	Project 2018-2021 Total (US\$)
1	Operational cost	57,500	57,500	57,500	1,72,500
2	Publishing charges for research paper in reputed journal	1500	1500	1500	4500
3	Visit abroad - for two scientists	10,000			10,000
4	Establishment of molecular biology lab-contribution from Mdlz.		30,000	30,000	60,000
	<b>Total contribution from Mdlz.</b>	<b>69,000</b>	<b>89,000</b>	<b>89,000</b>	<b>2,47,000</b>

- 2) Sanction is also hereby accorded by the Professor and Head, for the purchase of a pickup van for the transportation of materials for manuring and spraying in the Cocoa Farm without exceeding the limit and without affecting the project work.
- 3) Sanction is also accorded for the appointment of four Research Assistant with following discipline to support various experiments as per the approved proposal for a period of two year.

- M.Sc Botany/Plant Breeding/Horticulture
- M.Sc Microbiology/Plant Pathology
- M.Sc in Biotechnology with specialization in Molecular Biology
- M.Sc in Community Science with specialization in product development

- 4) The Comptroller will provide a separate head of account with subhead to it, which is sanctioned by the Mondelez so that expenditure incurred on salary and other charges be booked from it. KAU share from the non-plan-plan funds is to be booked through separate head of account

- 5) The Principal Investigator will submit annual report, project completion report, Audited Utilization Certificate and Asset Transfer Certificate of the project in time without exceeding the limit and without affecting the project work.

- 6) The project will automatically be terminated on the expiry of the above sanctioned period unless extended by the funding agency.

Sd/-  
DIRECTOR OF RESEARCH

To

- 1) Dr.B.Suma, Professor and Head &PI, Cocoa Research Centre, Vellanikkara  
2) The Comptroller, Kerala Agricultural University..

Copy to: PA to Registrar/AO. - DOR/S.O - DoR/SF/Spare.

//Forwarded by Order//

  
Section Officer

CA

**KERALA AGRICULTURAL UNIVERSITY**  
**PROCEEDINGS**

KAU – DoR – DBT – BIRAC project “Metabolome analysis in ginger and product development using gingerol” under the principal investigatorship of Dr. M.R.Shylaja, Professor CPBMB, College of Horticulture, IT-BT Complex, KAU – Implementation - Administrative and Technical Sanctions- accorded - Orders issued.

**DIRECTORATE OF RESEARCH**

No. R7/61881/13

Dated, Vellanikkara, 16/08/2014.

- Read : 1. Order No. BT/CRS0068/CRS-03 dated 14/02/2014 of DBT-BIRAC  
2. Lr. No. CoH/CPBMB/BIRAC/25/14 dated 06/08/2014 of Dr. M.R.Shylaja, Professor CPBMB, College of Horticulture, IT-BT Complex, KAU  
3. Note No/EP/B2/19546/2014 dated 14/08/2014 of the Comptroller.

**ORDER**

As per order read as 1<sup>st</sup> above, Dr. Amita Joshy, Manager (Technical) DBT – BIRAC has informed that the DBT-BIRAC project “Metabolome analysis in ginger and product development using gingerol” has been sanctioned under the principal investigatorship of Dr. M.R.Shylaja, Professor CPBMB, College of Horticulture, IT-BT Complex, KAU, at a total outlay of Rs 148.10 for three years. BIRAC’s total grant-in-aid will be Rs. 148.10 lakhs. Of the total, grant to KAU, the Academic collaborator is Rs. 88.10 lakhs and grant to industrial collaborator (Arjuna Natural Extracts, Aluva) is Rs. 60.00 lakhs. Of the grant to KAU, Rs. 60.00 lakhs is earmarked for non-recurring expenditure and Rs. 28.10 lakhs as recurring expenditure. A tripartite agreement also has been executed in this regard as insisted by the BIRAC.

In the non-recurring expenditure, equipment items like Accelerated Solvent Extractor, HPLC system, Electronic weighing balance, Pulverisator, Hot air oven and accessories are to be purchased. In recurring expenditure, Manpower (Rs. 14.10 lakhs), consumables (Rs. 10.00 lakhs) and travel (Rs. 4.00 lakhs) are earmarked.

Yearly budget split up of the project mentioned as follows

Items	1 <sup>st</sup> year (Rs. lakhs)	2 <sup>nd</sup> year (Rs. lakhs)	3 <sup>rd</sup> year (Rs. lakhs)	Total (Rs. lakhs)
Non recurring				
Equipment	35.0	6.5	18.5	60.00
Recurring				
a. Manpower	5.0	5.0	4.1	14.10
b. Consumables	3.0	3.0	2.0	8.0
c. Travel	1.0	1.0	2.0	4.0
d. Contingency	1.0	0.5	0.5	2.0
<b>Total</b>	<b>45.0</b>	<b>16.0</b>	<b>27.1</b> ✓	<b>88.10</b>

Dr. M.R.Shylaja, Professor CPBMB has also informed that the first installment of Rs. 25.00 lakhs has been disbursed by DBT and credited to the separate account opened for the project (Account No. 67270051414 on 31/07/2014. The release of further installments and other terms and conditions will be as per the sanction order read as 1<sup>st</sup> above.

Main objectives of the project are :

- Gingerol product development using already identified high gingerol yielding somaclones

- Stability studies for retention of gingerol in the product
- Analysis and separation of 6-gingerol from the other gingerols
- Detailed animal toxicity studies of the extract
- Screening somaclones for gingerol content

As per paper read as 2<sup>nd</sup> above, Dr. M.R.Shylaja, Professor CPBMB, College of Horticulture and Principal Investigator has requested for administrative and technical sanctions of the project "Metabolomic analysis in ginger and product development using gingerol" for three year's.

The Comptroller, KAU vide note No. EP/B2/19546/2014 dated 14/08/2014 read 3<sup>rd</sup> above has also concurred the above proposal.

Under these circumstances following orders are issued.

1. Administrative and technical sanctions are hereby accorded for the implementation of the DBT project "Metabolome analysis in ginger and product development using gingerol" under the principal investigatorship of Dr. M.R.Shylaja, Professor CPBMB, College of Horticulture, IT-BT Complex, KAU at a total outlay of Rs.148.10 for three years.
2. Sanction is also accorded to create temporary posts of one Research Assistant with M.Sc (Biochemistry)/Ph.D (Biochemistry) with experience in analytical techniques (Rs. 17,000/- month), one Technical Assistant with M.Sc (Hort)/M.Sc (Biotech) (Rs. 12,000/- month) and one Project Assistant with degree in biological sciences with PGDCA (Rs. 8,000/- month).
3. Further sanction is accorded to purchase the equipment sanctioned in the project viz. Accelerated Solvent Extractor, HPLC system, Electronic weighting balance, Pulverisor, Hot Air Oven and accessories.
4. To engage temporary hands with the qualifications specified till the appointment of project staff.
5. To split the amount in consumables ( Rs. 10 lakhs) as - Consumables - 8.0 lakhs and contingency 2.0 lakhs.
6. The Comptroller will make necessary budget provision and place the funds at the disposal of the PI of the project at CPBMB, IT-BT Complex, College of Horticulture, Vellanikkara who will be drawing and disbursing officer of the project.
7. The PI will complete the project within the stipulated period, not exceeding the sanctioned amount and submit final report.

Sd/-

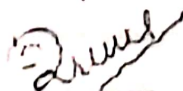
Director of Research

To

1. Dr. M.R.Shylaja, Professor CPBMB, College of Horticulture, IT-BT Complex, KAU
2. The Professor and Head, CPBMB, IT-BT Complex, College of Horticulture, Vellanikkara
3. The Comptroller, KAU, Vellanikkara.

Copy to : AO DoR/SP/Spare.

//Forwarded by order//

  
SECTION OFFICER

KERALA AGRICULTURAL UNIVERSITY  
PROCEEDINGS

KAU - DoR - CDB - Project proposal - "Training and Technology Demonstration Project for Making Value Added Products from Coconut Wood" - Administrative and Technical Sanctions accorded - Orders issued.

**DIRECTORATE OF RESEARCH**

No.RI/65338/13

Dated, Vellanikkara, 22.08.2016

- Read: 1. Proceedings of the 45<sup>th</sup> meeting of Project Approval Committee of Technology Mission on Coconut held at CDB, Kochi.
2. Letter of even no. dated 29.07.2015 of Director of Research.
  3. Letter of even no. dated 29.11.2015 of Director of Research.
  4. Lr. No. 1345/2013-TMOC (KAU) dated 4.07.2016 of Assistant Director, Coconut Development Board.
  5. Lr. No. COF/GL(1)3004/13 dated 21.07.2016 of Dean, College of Forestry, Vellanikkara.

ORDER

As per reference 1<sup>st</sup> cited, the 45<sup>th</sup> meeting of Project Approval Committee of Technology Mission on Coconut held at Coconut Development Board, Kochi has approved a project, to setup modern coconut wood workshop cum training centre fully funded by CDB, for making value added products from coconut wood and market the same in collaboration with the Kerala Furniture Consortium Private Ltd. (KFPCL) and Kodungallur Coconut Producer Company Ltd. (KCPL). This will be achieved by providing training to selected trainees of the Kodungallur Coconut Producer Company Ltd., Perinjanam, Thrissur. The unit will be developed in Kerala Agricultural University premises and after the completion of three years project period, the Kodungallur Coconut Producer Company Ltd., Perinjanam, Thrissur will be allowed to utilize the machinery and equipments without any prejudice to the University activities.

Consequently as per the reference read 2<sup>nd</sup> above, Dr. Anoop E.V. Associate Professor and Head of the Department of College of Forestry, Vellanikkara has submitted the project proposal entitled "Training and Technology Demonstration Project for Making Value Added Products from Coconut Wood" to be forwarded to Coconut Development Board which was approved by them for a period of three years (Ref. Lr. No. 1345/2013/TMOC dated 4.07.2014 of the Director, CDB).

A Memorandum of Understanding is signed between Kerala Agricultural University and the Kodungallur Coconut Producer Company Ltd., Perinjanam, Thrissur for a period of ten years and the same was forwarded to the Board as per the reference read 3<sup>rd</sup> above.

An amount of ₹ 52.272 lakhs (Rupees Fifty two lakhs twenty seven thousand and two hundred only) was sanctioned by the Coconut Development Board under an MoU signed between Coconut Development Board and Kerala Agricultural University with main object to setup a modern coconut wood technology centre at Kerala Agricultural University premises.

The first installment of the project for the 1<sup>st</sup> year ₹ 2764000/- (Rupees Twenty seven lakhs sixty four thousand only) (DD No. 426707 dated 1.07.2016) released by the CDB vide reference read 4<sup>th</sup> above.

Now vide reference read last above, Dr. E.V. Anoop, Associate Professor and PI, Head of the Department of College of Forestry, Vellanikkara has requested for Administrative and Technical Sanctions along with the budget proposals under KAU subheads as detailed below :

Item	2014	2015	2016	Total
12 - Salary - Contractual Staff (item 1)				
300 - TA (item 5)	0.500	0.500	0.500	1.500
214 - Operational Costs (items 4, 6, 7, 8)	8.800	5.600	5.600	20.000
420 - Equipment - (items 3)	8.500	-	-	8.500
910 - Civil Works (item 2)	6.000	-	-	6.000
Total	27.640	9.940	9.940	47.520
Inst. Charges - 10%	2.764	0.993	0.993	4.750
Grand Total	30.404	10.933	10.933	52.270

Under the circumstances, Administrative and Technical Sanctions have been accorded for the project entitled "Training and Technology Demonstration Project for Making Value Added Products from Coconut Wood" under the PIsip of Dr. E.V. Anoop, Associate Professor and PI at a total outlay of ₹ 52.272 lakhs for a period of three years.

Sanction is also accorded to appoint one Master Trainer @ ₹ 17,000/- per month for a period of three years and a Project Assistant @ ₹ 15,000/- per month for a period of three years with qualification prescribed in the sanctioned project proposal.

The PI will ensure proper implementation of the project within the stipulated time prescribed by the Coconut Development Board. He will submit the quarterly progress report on the project with Utilization Certificate of the funds released by the Board indicating itemwise expenditure for the year on or before 10<sup>th</sup> of every succeeding quarter.

The Comptroller will allot a separate Head of Account to the project and authorize funds to the Dean, College of Forestry, Vellanikkara who is the Drawing and Disbursing Officer.

The project will automatically be terminated on the expiry of the sanctioned time unless extended by the funding agency.

This order is issued after getting financial concurrence from Comptroller.

Sd/-  
DIRECTOR OF RESEARCH

To :

1. The Director, Coconut Development Board (with C/L)
2. ✓ Dr. Anoop E.V, Associate Professor and Head of the Department of College of Forestry, Vellanikkara.
3. The Dean, College of Forestry, Vellanikkara.

Copy to : PS to VC / Jt. Director, LFA / Sr. Deputy Comptroller / ADR (Plg.) / S.OS - ( EP, BG) / SF/ Spare

/ Forwarded by Order /

Section Officer