



## ABSTRACT

Forests – Tamil Nadu Innovation Initiatives – Development of Novel expression markers to aid in expression markers to aid in the screening of tamarind genotype of superior fruit characteristics at a total cost of Rs.9.89 lakhs under State Innovation Fund for the year 2017-2018 (2<sup>nd</sup> round) - Sanction – Orders issued.

### ENVIRONMENT AND FORESTS (FR.7) DEPARTMENT

G.O.(D) No: 39

Dated : 09.02.2018

ஹேவிளம்பி, தை- 27

திருவள்ளூர் ஆண்டு - 2049.

Read:

- 1) From the Principal Chief Conservator of Forests Letter No. J1/24259/2017, dated 06.09.2017.
- 2) From the Member Secretary, State Planning Commission Letter No. 1644/SPC(PC)/2017, dated 14.11.2017.

### ORDER:

The Principal Chief Conservator of Forests has stated that tamarind is one of the most important multipurpose trees which is grown in farm land and also occurs naturally in the forest. Tamarind tree exhibits a wide variation in flowering pattern, fruiting behavior, flower colour, fruit color and acidity content. Based on the variation in pulp colour, tamarind has been classified as red and brown tamarind depending on nature of anthocyanin pigment it contains. The roles of anthocyanin pigments as medicinal agents have been well-accepted dogma in folk medicine throughout the world and in fact, these pigments are linked to an amazingly broad-based range of health benefits. They are also found to exhibit potential therapeutic effect such as radiation protective, chemo-protective and vaso-protective, inhibition of Low Density Level oxidation, prophylactic action and decrease risks of cardiovascular diseases.

2. The Principal Chief Conservator of Forests has also stated that considering their positive beneficial health effect and potential role as a bio colorant, the present study is proposed to elucidate the biosynthesis pathway of the anthocyanin, its key genes and pathway regulators by doing transcriptomic gene mapping analyses. This will help to develop an expression based marker system for screening elite genotypes of high anthocyanin content. Initial works at State Forest Research Institute led to few clones of improved yield. Henceforth by employing this novel approach of gene expression marker system, the selection of elite genotypes with superior fruit characteristics of medicinal and health benefits will be possible. The market potential is huge as many parts of tamarind has been traded for various reasons. Since red tamarind types are not very common, selecting and propagating the high yielding ones along with potent medicinal properties would be of immense value to the farmers, commercial traders and consumers.

3. The Principal Chief Conservator of Forests has, therefore, requested to sanction a sum of Rs.9.89 lakhs for development of Novel expression markers to aid in the screening of tamarind genotypes of superior fruit characteristics under the State Innovation Fund for the year 2017-2018 (2<sup>nd</sup> round).

4. The State Planning Commission has recommended the above proposal in

5. The Government, after careful consideration accept the proposal of the Principal Chief Conservator of Forests and sanction a sum of Rs.9.89 lakhs(Rupees Nine lakhs and eighty nine thousand only) for the year 2017-2018 towards development of Novel expression markers to aid in the screening of tamarind genotypes of superior fruit characteristics during the year 2017-2018 under State Innovation Fund during the year 2017-2018.

6. (i). The expenditure sanctioned in para 5 above shall be debited to the following head of account:-

"2406 Forestry and Wild Life - 01 Forestry – 105 Forest Produce - State's Expenditure – JG Screening of tamarind genotypes for superior fruit characteristics under State Innovation Fund – 09 Grants-in-Aid – 03 Grants for Specific Schemes

(DPC – 2406 01 105 JG 0931)"

(ii) The expenditure shall be met from the State Innovation Fund by deducting under the following head of account:-

"2406 Forestry and Wild Life - 01 Forestry – 902 Deduct – Amount met from State Innovation Fund - JA Deduct – Amount met from State Innovation Fund - 30 Inter - Account Transfers.

(DPC – 2406 01 902 JA 3001)"

And Contra –debiting the following fund account:-

"J- Reserve Fund – (b) Reserve funds not bearing interest – 8229- 00 – Development and Welfare Funds – 200. Other Development and Welfare Funds – BE State Innovation Fund.

(DPC – 8229 00 200 BE 0006) (Outgo)"

7. Necessary funds have been included in the Supplementary Estimates 2017-2018.

8. The Principal Chief Conservator of Forests is authorized to draw and disburse the amount sanctioned in para 4 above. He is also requested to ensure that the amount sanctioned therein is utilized in full and to send the utilization certificate as soon as the works is completed.

9. This order issues with the concurrence of the Finance Department vide its U.O. No.64608/AHD&F/2017, dated 05.02.2018.

(BY ORDER OF THE GOVERNOR)

**Md. NASIMUDDIN**  
**PRINCIPAL SECRETARY TO GOVERNMENT**

To

The Principal Chief Conservator of Forests, Chennai-15.

The Pay & Accountant Officer (South), Chennai-35.

The Principal Accountant General, Chennai-18.

The Accountant General-I/ II,

361, Anna Salai, Chennai-18.

The Resident Audit Officer, Chennai – 9.

Copy to:-

The Finance (AH&F) Department, Chennai-9.

SF/SC.

//FORWARDED BY ORDER//

*Handwritten signature and date*  
12/11/18