

**Unit Cost for Maintenance of (9X11) Bag Plants nursery of Miscellaneous species- FSR 2021-22
(For 2022-23)**

| Sl. No. | FSR Code No. | Item of work | Qty. | Unit | Rate | 25% Agency Allowance | Amount |
|---------|------------------------|--|------|---|--------|----------------------|--------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | MAINTENANCE YEAR OF NURSERY | | | | | |
| 1 | 01.04.00 | MAINTENANCE OF BAG PLANTS NURSERY UPTO PLANTING SEASON (APRIL TO AUGUST) for 10 m X 1 m size secondary beds (2600 Nos of 4" X 7" bags; 1700 Nos of 5" X 9" bags ; 1100 Nos. of 6"x12" & 6"x8" bags ; 800 Nos. of 8"x12" bags; 400 Nos. of 10"x16" bags per bed) | | | | | |
| 2 | 01.04.01 (2020-21 FSR) | Watering polybag secondary beds twice a day for 4 months | | | | | |
| | | (a) Manually with rose cans or finely perforated nozzle attached to a hose pipe | 1 | Per bed per / Month | 286.76 | 358.45 | 1075 |
| | 01.04.01 (2021-22 FSR) | (a) Manually with rose cans or finely perforated nozzle attached to a hose pipe | 1 | Per bed per / Month | 301.09 | 376.36 | 3387 |
| 3 | 01.03.02 | Weeding the plants (1100 no. of 6"x12"bags; 800 no. of 8"x12" bags; and 400 no. of 10"x16" bags; 300 Nos of 12"x13" bags) a) If the Conversion of small size bags into bigger size bag is done during May - June | | | | | |
| | | (i) 1st weeding - August | 1 | Bed / weeding | 55.29 | 69.11 | 69 |
| | | (ii) 2nd Weeding - October | 1 | Bed / weeding | 55.29 | 69.11 | 69 |
| | | (iii) 3rd weeding - December | 1 | Bed / weeding | 55.29 | 69.11 | 69 |
| | | (iv) 4th weeding - February | 1 | Bed / weeding | 55.29 | 69.11 | 69 |
| 4 | 01.04.03 | Shifting, grading and rearrangement in beds(3 shiftings) | 1 | Bed / Shifting | 258.26 | 322.83 | 968 |
| 5 | 01.04.04 | Application prophylactic foliar spray of 0.2% of Carbendazim / Dithane M-45 and any organo-phosphate(Monocrotophos / Phosphamidon @ 3-4 ml in 1 lit of water) at regular interval (once in a month from April to August) alternatively. Similarly, application of NPK 19:19:19 (1 teaspoon in 1 lit water) - once in a month - to be applied by back-packed power-sprayer (preferably in morning or evening and no watering for at least 12 hours after spray) | | By Nursery Watcher | | | |
| 6 | 01.04.05 | Cost of foliar nutrient formulations like NPK-19:19:19; fungicides and insecticides (from April - August) | | As per actuals with a maximum limit of Rs. 2000/ per 1 lakh polybag seedlings | | | 1000 |
| 7 | 01.04.06 | Cowdung Slurry application (One can apply chemical foliar spray or apply cowdung slurry -not both) | | | | | |
| | | (a) Cost and transportation of fresh cowdung | | per 100 beds for 3 months | | | 2500 |
| | | (b) Application of cowdung slurry - once per month between April to June - Watering should not be done 12 hours before and after application of cowdung slurry treatment | 1 | By Nursery Watcher | | | |
| 8 | 01.04.07 | Weeding in the space between the beds, inspection path and surroundings of Nursery | 1 | Per bed | 28.98 | 36.23 | 36 |
| 9 | 01.04.08 | Contingencies for Maintenance Year towards the expenditure like cost of hose pipe, nursery boards, etc (Store register for materials purchased to be maintained). | | As per actuals, subject to max. of 3% of estimate in maintenance year | | | 6782 |
| 10 | 01.04.09 | Contingencies for Electricity charges, Running & maintenance charges of oil engine (Bills to be certified by DFO / FDO and a separate log book to be maintained for oil engine) | | As per Actuals | | | 3000 |
| 11 | 01.05.04 | Cost of Protection: One Nursery Watcher is allowed up to 1 lakh RT nursery or 100 secondary beds of polybags / 100 Teak beds of 10 m x 1 m size or combination of both. One additional Nursery Watcher is permitted for nurseries having more than 1 lakh upto 3 lakh RT seedlings or more than 100 upto 300 secondary beds or Teak beds of 10 m x 1 m size | 1 | Watcher / Month | | 9194.85 | 9195 |
| 12 | 01.05.04 | Cost of Protection: One Nursery Watcher is allowed up to 1 lakh RT nursery or 100 secondary beds of polybags / 100 Teak beds of 10 m x 1 m size or combination of both. One additional Nursery Watcher is permitted for nurseries having more than 1 lakh upto 3 lakh RT seedlings or more than 100 upto 300 secondary beds or Teak beds of 10 m x 1 m size or combination of both. For more than 3 lakh RT or 300 secondary beds of Teak beds or combination of both another additional Nursery Watcher is allowed. While calculating the number of Nursery Watcher, care shall be taken | 1 | Watcher / Month | | 9654.59 | 9655 |
| | | Total: | | | | | 37875 |

Total : 2021-22 37875

Escalation 10% 3788

Total: 2022-23. 41663

Escalation 10% 4166

Total: 2023-24. 45829

Escalation 10% 4583

Total: 2024-25. 50412

Escalation 10% 5041

Total: 2025-26. 55453

Escalation 10% 5545

Total: 2026-27. 60998

Escalation 10% 6100

Total: 2027-28. 67098

Escalation 10% 6710

Total: 2028-28. 73808

Escalation 10% 7381

Total: 2029-30. 81189

Escalation 10% 8119

Total: 2030-31. 89308

Escalation 10% 8931

Total: 2031-32. 98239

Bhadrachalam
**Forest Divisional Officer,
Bhadrachalam**

Unit Cost for Conversion from (4"X7" To 9" X 11") of Misc.Bag Plants as per FSR 2021-22 (for 2022-23)

Scheme : CAMPA - NFM

Target : 100000 Nos

| Sl. No. | Item of Work | FSR Item no. | Qty | Rate | Unit | Agency Allowance 25% | Amount |
|---------|---|--------------|-------|---------|----------------|----------------------|--------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | CONVERSION of Root Trainer plants or 4"x7" or 5"x9" or 6"x8" bag-plants into higher size | | | | | | |
| | Cost & Transport of ingredients for Potting Mixture: Red Soil, tank-silt / clayey soil, FYM in | | | | | | |
| 2 | Transportation of soil mixture ingredients up to a distance of 5 km (e) 4" x 7" to 9" x 11" bags (4.717 - 0.56 = 4.157 cum) | 01.03.21 | 500 | 1614.27 | 1000 | bed | 807 |
| 3 | Transportation of soil mixture ingredients more than 5 km distance and upto 25 km distance (e) 4" x 7" to 9" x 11" bags (4.717 - 0.56 = 4.157 cum) (20X41.94 =838.8) | 01.03.22 | 500 | 838.8 | 1000 | 0 | 419 |
| | Cost of Polythene Bags-6.02 Kgs, 83 Nos. per KG | Nos. | 6.024 | 158 | | | 952 |
| 4 | Cost of Chemical component | 01.03.23 | 500 | LS | LS | 0 | 500 |
| 5 | Preparation of Potting Mixture by powdering of various ingredients, sieving and mixing them in prescribed proportion; opening of bags and filling with potting mixture partially, tearing the polybag plants and repotting them inside bigger bags and filling the rest of bags; gently pressing the same with finger tips and arranging in beds of 10x1 m size (6"x12" size: 1100 bag plants / bed and 8"x12" size": 800 bag plants per bed) (e) 4" x 7" to 9" x 11" bags (4.717 - 0.56 = 4.157 cum) | 01.03.24 | 500 | 2878 | 1000 | 3597.50 | 1799 |
| 6 | Stakes to be provided to plants in 8"X12", 9"X11", 10"X16" and 12"X13" bags with a minimum 1.50 mtr height | 01.03.30 | 500 | 5250 | 1000 | 5250.00 | 2625 |
| 7 | Weeding the plants (1100 no. of 6"x12"bags; 800 no. of 8"x12" bags; and 400 no. of 10"x16" | | | | | | 0 |
| | a) If the Conversion of small size bags into bigger size bag is done during May - June | | | | | | |
| | (ii) 2nd Weeding - October | 01.03.31 | 1 | 55.29 | Bed / weeding | 69.11 | 69 |
| | (iii) 3rd weeding - December | 01.03.31 | 1 | 55.29 | Bed / weeding | 69.11 | 69 |
| | (iv) 4th weeding - February | 01.03.31 | 1 | 55.29 | Bed / weeding | 69.11 | 69 |
| 8 | Shifting, grading and re-arrangement in beds | 01.03.32 | | | | | |
| 8 | a) If the shifting and grading is done during May - June | | | | | | |
| 8 | i) One additional shifting and grading after 3 months after conversion and consecutive shifting and grading after every 2 months till the nursery stock is lifted (1+2=3) | 01.03.32 | 1 | 258.26 | Bed / shifting | 322.83 | 968 |

| | | | | | | |
|----|--|----------|---|--------------------|---------------------|--------|
| 9 | Watering the plants manually twice a day with rose cans or finely perforated nozzle | | | | | 0 |
| | Watering from September - March | 01.03.33 | | | | |
| | (a) Manually with rose cans or finely perforated nozzle attached to a hose pipe (10/21 to 03/2021) | | 1 | 301.15 | Per Month / Per Bed | 376.44 |
| 10 | Application prophylactic foliar spray of 0.2% of Carbendazim / Dithane M-45 and any organo-phosphate (Monocrotophos / Phosphamidon @ 3-4 ml in 1 lit of water) at regular interval (once in a month from Dec - March) alternatively. Similarly application of NPK 19:19:19 (a teaspoon in 1 lit water) - once in a month - to start 1 month after conversion by back-packed power- | 01.03.34 | 1 | By Nursery Watcher | | |
| 10 | Cost of foliar nutrient formulations like NPK-19:19:19; fungicides and insecticides (from Dec - March) | 01.03.35 | 1 | | LS | 0 |
| 11 | Contingencies for Raising Year towards the expenditure like cost of hose pipe, nursery boards, (store register for materials purchased to be maintained.) | 01.03.35 | 1 | 1840945 | LS | 0 |
| 12 | Contingencies for Electricity charges running and maint. Of charges of Oil engage bill to be certified by DFO /FDO and a seperate log book to be maint. For oil engine. | 01.03.36 | 1 | LS | LS | 0 |
| 13 | Cost of Protection: One Nursery Watcher is allowed up to 1 lakh RT nursery or 100 secondary beds of polybags / 100 Teak beds of 10 m x 1 m size or combination of both. One additional Nursery Watcher | 01.05.04 | 1 | 9654.59 | Month | 0 |
| | | TOTAL : | | | | 25191 |

| | |
|------------------------|--------------|
| Total : 2021-22 | 25191 |
| Escalation 10% | 2519 |
| Total: 2022-23. | 27710 |
| Escalation 10% | 2771 |
| Total: 2023-24. | 30481 |
| Escalation 10% | 3048 |
| Total: 2024-25. | 33529 |
| Escalation 10% | 3353 |
| Total: 2025-26. | 36882 |
| Escalation 10% | 3688 |
| Total: 2026-27. | 40570 |
| Escalation 10% | 4057 |
| Total: 2027-28. | 44627 |
| Escalation 10% | 4463 |
| Total: 2028-28. | 49090 |
| Escalation 10% | 4909 |
| Total: 2029-30. | 53999 |
| Escalation 10% | 5400 |
| Total: 2030-31. | 59399 |
| Escalation 10% | 5940 |
| Total: 2031-32. | 65339 |


Forest Divisional Officer,
Bhadrachalam
 10/01/22

Unit Cost for Misc., Bag Plants (4"X7") Bags FSR 2021-22(for 2022)


| Sl. No. | Item of work | FSR Code No. | Qty | Unit | Rate (In Rs.) | Agency Allowance 25% | Total Amount |
|----------|---|--------------|----------|------------|-------------------------|----------------------|--------------|
| 1 | 2 | 3 | 4 | 5 | 5 | | |
| | Raising of Primary beds of size 1x1x0.3 m for raising Miscellaneous Species | | | | | | |
| 1 | Preparation of old site - by clearing misceleneous unavailble Jungle growth, uprootal of stumps and removal of surface stones, pebbles etc., | 01.01.01 | 1 | Per bed | 1.38 | 1.725 | 2 |
| 2 | Digging soil of the demarcated beds of 1X1X0.3M Size | 01.01.03 | 1 | Bed | 42.06 | 52.575 | 53 |
| 3 | Cost of sandy soil and transportation with 5 km lead including loading and unloading charges (Sandy soil and FYM. in 5:1 proprtion) 0.125 cum sandy soil and 0.025 cum FYM per primary bed. | 01.01.04 | 1 | Bed | 31.81 | 39.7625 | 40 |
| 4 | Cost and transport of 0.025 Farm yard manure | 01.01.06 | 1 | Bed | 27.34 | 34.175 | 34 |
| 5 | Mixing of Sandy soil and FYM in 5:1 Proportion(50% of Volume of bed) with excavated soil and refilling the bed and leveling | 01.01.07 | 1 | Bed | 11.96 | 14.95 | 15 |
| 6 | Covering the bed with dried grass and leaf litter and burning them to ash wich can form the upper layer | 01.01.08 | 1 | Bed | 13.67 | 17.0875 | 17 |
| 7 | Soil drenching with 0.1% Carbendazim(10 grams or 10 ml of Carbendazim in 1 lit of water | 01.01.09 | 1 | | Through Nursery Watcher | | 0 |
| 8 | Cost of Seed,weight, germination percentage and taget of planting stock of individual species are to be taken into consideration while estimationthe requirment of seeds | 01.01.10 | 1 | | A/a | | 100 |
| 9 | Sowing of seed (finer seeds like Adina, Mitragyna, Anthocephalus etc., to be mixed twith sand and bradcasted - Bigger seeds to be dibbled in lines 1 - 2 cm apart) and covering the bed to a thickness of 2.5 cm with paddy hay including cost and conveyance | 01.01.12 | 1 | Bed | 13.62 | 17.025 | 17 |
| 10 | Watering the primary nursery beds | 01.01.13 | 1 | Bed/ Month | 15.32 | 19.15 | 19 |
| 11 | Cost of chemicals,fungisides and insecticides/ Fertilizers | 01.01.15 | 1 | | A/a | | 200 |
| | <u>BAG PLANTS NURSERY</u> | | | | | | |

| | | | | | | | |
|----|---|----------|------|-----------------|--------|----------|------|
| 12 | Site Preparation for old sites - Clearing of growth, uprootal of stumps and removal of surface stones, rubbish of all sorts etc., | 01.03.01 | 1 | Per bed | 14.61 | 18.2625 | 18 |
| 13 | Cost and transport of ingredients for Potting mixture (as per CSSR) Red Soil, tank silt, Fym in 2:1:1 ratio.to this soil mixture, 220 gm of indophyll m -45, 4.5 kg of SSP and 250 gm of phorite granuels for 1cum of potting mixture will be added. Cost of chemicals is as per actuals. | 01.03.04 | | | | | |
| | Transportation of soil mixture ingredients | | | | | | |
| | a). Distance upto 5 Km | | | | | | |
| | (a) 10 cm x 17.5 cm (4" x 7") = 0.56 cum vol. for 1000 bags | 01.03.05 | 2600 | 1000 Bags | 217.41 | 271.7625 | 707 |
| | a). Distance for every extra Km Beyond 5 Kms upto 25 Kms | | | | | | |
| | (a) 10 cm x 17.5 cm (4" x 7") = 0.56 cum vol. for 1000 bags (20*5.67=113.40) | 01.03.06 | 2600 | 1000 Bags | 113.4 | 141.75 | 369 |
| | Cost of chemical component | 01.03.07 | A/a | | | | 500 |
| | Preparation of potting mixture by powdering of various ingredients, sieving and mixing them in the prescribed proportion, Opening the bags and filling with potting mixture and gently pressing the same with finger tips and arranging in beds. | 01.03.08 | | | | | |
| 15 | (a) 10 cm x 17.5 cm (4" x 7") size bags: 2600 bags / bed | | 2600 | 1000 Bags | 643.75 | 804.6875 | 2092 |
| 14 | Alignment of beds including alignment of inspection path etc., | 01.03.09 | 1 | Bed | 8.38 | 10.475 | 10 |
| 16 | Pricking out seedlings from primary beds and transplanting in bags. | 01.03.10 | 2600 | 1000 Bags | 155.12 | 193.9 | 504 |
| | Watering the plants twice a day from October - March | | | | | | |
| 17 | (a) Manually with rose cans or finely perforated nozzle attached to a hose pipe July to September | 01.03.12 | 1 | Bed/ Month | 301.09 | 376.3625 | 1129 |
| 18 | Weeding to be done for every 2 months from the date of transplantation up to March up to September (1 times) | 01.03.13 | | | | | |
| | 1st Weeding - | | 1 | Bed/ Weeding | 55.29 | 69.1125 | 69 |
| 19 | 1st shifting and grading after three months and consecutive shifting and grading after every two months till the nursery stock is lifted | | | | | | |

| | | | | | | | |
|----|--|----------|------|----------------------|---------|---------|--------------|
| | 1st Shifting - | 01.03.14 | 1 | Bed/ Shifting | 258.26 | 322.825 | 323 |
| 20 | Replacement of Casualties after sort out empty bags and keeping of one end of the bed (maximum 10% of total stock is permissible) | 01.03.15 | 1 | Bed | 73.32 | 91.65 | 92 |
| 21 | Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides from July to Oct. | 01.03.16 | 2600 | | A/a | | 500 |
| 22 | Weeding the space between the space, inspection path and surroundings of nursery | 01.03.18 | 1 | Bed | 37.71 | 47.1375 | 47 |
| 23 | Contingencies for Raising Year towards the expenditure like cost of hose pipe, nursery boards, (store register for materials purchased to be maintained.) | 01.03.35 | 2600 | | 10715 | | 321 |
| 23 | Contingencies for Electricity charges, Running & maintenance charges of oil engine (bills to be certified by DFO / FDO and a separate log book to be maintained for oil engine | 01.03.36 | 1 | | A/a | | 500 |
| 24 | Cost of protection watcher October to March (6) Months 1 No's @ 9654.59 /3 month | 01.05.04 | 1 | Month | 9654.59 | | 9655 |
| | | | | GRAND TOTAL:: | | | 17333 |

Total : 2021-22 **17333**
Escalation 10% 1733
Total: 2022-23. **19066**
Escalation 10% 1907
Total: 2023-24. **20973**
Escalation 10% 2097
Total: 2024-25. **23070**
Escalation 10% 2307
Total: 2025-26. **25377**
Escalation 10% 2538
Total: 2026-27. **27915**
Escalation 10% 2791
Total: 2027-28. **30706**
Escalation 10% 3071
Total: 2028-28. **33777**
Escalation 10% 3378
Total: 2029-30. **37155**
Escalation 10% 3715
Total: 2030-31. **40870**
Escalation 10% 4087
Total: 2031-32. **44957**


Forest Divisional Officer,
Bhadrachalam


10/01/22

Unit Cost Estimate for Advance Operation for raising of Plantation under SMM

| Sl. No. | FSR Code No. | Item of work | Qty | | Rate in Rs. | | | Per | Amount |
|---------|--------------|--|-----|------|-------------|----------------------|------------|-----|--------|
| | | | | | Asper FSR | Agency allowance 25% | Total | | |
| 1 | 2 | 3 | 4 | | 5 | 6 | 7 | 8 | 9 |
| | 02.08.00 | ADVANCE OPERATION (PRE-PLANTING OPERATION) - All advance-operation works of plantations to be raised shall be completed before March. Perambulation of site, preparing site inspection report including type of vegetation and density, approval of site suitability and the category of jungle growth clearance, taking the | | | | | | | |
| | 02.08.01 | Survey with hand-held GPS (staff to carry out) and demarcation one manday is allowed for assistance. The surveyed sketch with exact effective area statement will be uploaded in MIS platform by end of December. | 1 | Ha. | 393.21 | 0.00 | 393 | Ha | 393 |
| | 02.08.02 | Clearing unsalable unwanted jungle growth (leaving all the tree species of good form particularly the hardwood tree species like Teak, Nallamaddi, Yegisa, Narepa, Somi, Jitregi, Billudu, Chenangoi etc. and NTFP species | | | | | | | |
| | | (b) Very Light Jungle Growth (>10% and upto 20% ground area covered with Jungle growth) | | 1.00 | 3284.95 | 4106.19 | 4106 | Ha | 4106 |
| | 02.08.03 | Uprootal of Stumps (excluding unsuitable patches) to a minimum depth of 45 cm with heavy machinery fitted with 0.90 cum and above capacity bucket, filling the pits caused by uprootal, and levelling. For retrived encroached area, the approval of Circle Head is required and the approval should indicate clearly the density of stumps or vegetation to be removed through uprootal. The uprootal work can be carried out preferably through tender process. | | | | | | | |
| | | (b) Very Light Jungle growth (>10% and up to 20% ground area covered with Jungle growth) | | 1.00 | 11037.51 | 0.00 | 0 | Ha | 11038 |
| | 02.08.04 | Collection and Removal of Uprooted Stumps of all sizes, other debris etc., to outside the plantation site. | | | | | | | |
| | | (b) Very Light Jungle growth (>10% and up to 20% ground area covered with Jungle growth) | | 1.00 | 9657.68 | 0.00 | 0 | Ha | 9658 |
| | 02.08.05 | Tilling (PERMISSIBLE FOR CA AREA ONLY) the soil to a depth of 45 cm in the effective area (excluding unsuitable patches) with heavy duty machinery fitted with 0.90 cum and | | | | | | | |
| | | (b) Very Light Jungle growth (>10% and up to 20% ground area covered with Jungle growth) | | | 13962.8 | | 13963 | | 13963 |
| | 02.19.02 | Digging of Peripheral Trenches (1 M Depth ; 1m top width, 1.5 M Bottom width) by machine for 1. km 1000 Rmt, (320 X 1.25 = 400) | | 100 | 42.40 | | 0 | | 4240 |
| | | | | | | | sub Total: | | 43004 |

Total : 2021-22 43004

Escalation 10% 4300

Total: 2022-23. 47304

Escalation 10% 4730

Total: 2023-24. 52034

Escalation 10% 5203

Total: 2024-25. 57237

Escalation 10% 5724

Total: 2025-26. 62961

Escalation 10% 6296

Total: 2026-27. 69257

Escalation 10% 6926

Total: 2027-28. 76183

Escalation 10% 7618

Total: 2028-28. 83801

Escalation 10% 8380

Total: 2029-30. 92181

Escalation 10% 9218

Total: 2030-31. 101399

Escalation 10% 10140

Total: 2031-32. 111539

Forest Divisional Officer,
Bhadrachalam

10/01/22

Unit Cost Estimate for Raising of Plantation under SMM

| Sl. No. | FSR Code No. | Item of work | Qty | | Rate in Rs. | | | Per | | Amount |
|---------|--------------|--|------|-----|-------------|----------------------|---------|-----|-----|--------|
| | | | | | Asper FSR | Agency allowance 25% | Total | | | |
| 1 | 2 | 3 | 4 | | 5 | 6 | 7 | 8 | | 9 |
| | 02.09.00 | PLANTING OPERATIONS DURING RAISING YEAR | | | | | | | | |
| 1 | 02.09.01 | Removing congestion of root suckers and other uprooted material hindering the effective ploughing | 1 | Ha | 1119.37 | 279.84 | 1399.21 | 1 | Ha | 1399 |
| 2 | 02.09.03 | Deep Ploughing the effective (excluding unsuitable patches) plantation area across the slope to a depth of 30 cm with Heavy-duty Tractor of 55 HP and above with Firm Mould Board (FMB) plough. FOR UN TILLED AREA ONLY | | | | | | | | |
| | | (a) Ordinary soils like gravel and morum | 0.50 | Ha | 3744.62 | 0.00 | 3744.62 | 1 | Ha | 1872 |
| | | (b) Hard soils like gravel and morum | 0.50 | Ha | 5620.89 | 0.00 | 5620.89 | 1 | Ha | 2810 |
| 3 | 02.09.04 | Alignment & Stacking including demarcation of base line | | | | | | | | |
| | | (c) 3X3 m espacement = 1111 planting points | 1111 | No. | 93.82 | 23.46 | 117.28 | 100 | No. | 1303 |
| 4 | 02.09.05 | i) Cost of preparation of stakes (0.45 m length) and transportation to site | 1111 | No. | 59.81 | 0.00 | 59.81 | 100 | No. | 664 |
| | | ii) Cost of preparation of stakes (2.0 m length) and transportation to site (subject to condition that the seedling height is 1.5m to 2.0m height) which includes cost of stake, coaltar application at the bottom of the stake (30 cm), transportation, fixing and tying. | 1111 | No. | 1260.00 | 0.00 | 1260.00 | 100 | No. | 13999 |
| 5 | 02.09.06 | Digging of Pits in Ploughed Areas in June - July by adopting 50% of original rate of digging of pits of ordinary soil | | | | | | | | |
| | | b) 45 cm3 pits | 1111 | No. | 11.19 | 2.80 | 13.99 | 1 | No. | 15540 |
| 6 | 02.09.07 | (a) Transportation of Planting Stock (including loading and unloading) up to a distance of 5 km | | | | | | | | |
| | | (d) 23 X 28 cm (9"X11") bag plants | 1111 | No. | 268.03 | 0.00 | 268.03 | 100 | No. | 2978 |
| 7 | 02.09.08 | (d) 23 X 28 cm (9"X11") bag plants For the distance of 15 Kms. i.e. 9.42 x 15=Rs. 94.20 / 100 Nos. per Km. | 1111 | No. | 94.20 | 0.00 | 94.20 | 100 | No. | 1047 |
| 8 | 02.09.10 | Internal transportation to planting points on head loads | | | | | | | | |
| | | (d) 23 X 28 cm (9"X11") bag plants | 1111 | No. | 173.08 | 43.27 | 216.35 | 100 | No. | 2404 |
| 9 | 02.09.11 | Fortification of seedling with insecticide and treating pits with SSP | | | | | | | | |
| | | (a) Application of 50 gm of SSP per pit (1 day before planting) for root growth and early establishment of plant after planting. ii) Similarly, the bag plants to be planted will be dipped inside Chloropyriphos solution (5ml Chloropyriphos in 1 lit water) either at nursery site before transport or at plantation site before planting | 1111 | No. | 41.23 | 10.31 | 51.54 | 100 | No. | 573 |
| | | (b) Cost of SSP, Chloridine dust or Chloropyriphos (50 gm. X 11110 = 555500 Grms. /1000 = 560 Kgs. / 45 Kgs. = 12.44 or 13 bags x Rs. 500/- = Rs. 6500/- | 1111 | No. | 13 | 0.00 | 500.00 | 1 | No. | 6500 |
| 10 | 02.09.12 | Planting in various size pits | | | | | | | | |
| | | b) Planting in 45 cm3 Pit | 1111 | No. | 459.36 | 114.84 | 574.20 | 100 | No. | 6379 |
| | 02.09.14 | Watering (one time) immediately after planting if the planting takes place on a non-rainy days and during dry spell | | | | | | | | |
| | | a) One critical watering after planting if planting takes place on non-rainy days with the prior written permission of DFO / FDO. | 1111 | No. | 278.11 | 69.53 | 347.64 | 100 | No. | 3862 |
| 11 | 02.09.16 | Cost of DAP @ 25 gm / planting point. (25 gm. X 11110 = 277750 Grms. /1000 = 277.75 Kgs. / 45 Kgs. = 6.172 or 7 bags x Rs. 1300/- = Rs. 9100/- | 1111 | No. | A/a | 0.00 | 0.00 | 1 | No. | 9100 |
| 12 | 02.09.17 | Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application. | 1111 | No. | 41.23 | 10.31 | 51.54 | 100 | No. | 573 |

| Sl. No. | FSR Code No. | Item of work | Qty | | Rate in Rs. | | | Per | | Amount |
|---------|--------------|---|-------|-----|-------------|--|---------|-----|-----|--------|
| | | | | | Asper FSR | Agency allowance 25% | Total | | | |
| 13 | 02.09.15 | Replacement of Casualties: 20% during Raising Year. (In case of Eucalyptus: 10% during raising and no casualty replacement for further maintenance). The casualty replacement should be done in 3 stages at an interval of 15 days immediately after planting during raising year. | | | | | | | | |
| | 02.09.07 | Transportation of Planting Stock (up to 5 km) (d) 23 X 28 cm (9"X11") bag plants. | 278 | No. | 268.03 | 0.00 | 268.03 | 100 | No. | 745 |
| 14 | 02.09.08 | b) Transportation of Planting Stock (including loading and unloading) more than 5 km distance and upto 25 km distance | | | | | | | | |
| | | (d) 23 X 28 cm (9"X11") bag plants For the distance of 15 Kms. i.e. 9.42 x 15=Rs. 94.20 / 100 Nos. per Km. | 278 | No. | 94.20 | 0.00 | 94.20 | 100 | No. | 262 |
| 15 | 02.09.10 | Internal transportation to planting points on head loads | | | | | | | | |
| | | (c) 20 X 30 cm (9"X11") bag plants | 278 | No. | 173.08 | 43.27 | 216.35 | 100 | No. | 601 |
| 16 | 02.09.06 | Digging of Pits | 278 | No. | 5.60 | 1.40 | 6.99 | 1 | No. | 1944 |
| 17 | 02.09.12 | b) Planting in 45 cm ³ Pit | 278 | No. | 437.48 | 109.37 | 546.85 | 100 | No. | 1520 |
| 18 | 02.09.16 | Cost of DAP @ 25 gm / planting point. (25 gm. X 2222 = 55550 Grms. /1000 = 55.55 Kgs. / 45 Kgs. = 1.5 or 2 bags x Rs. 1300/- = Rs. 2600/- | 278 | No. | 2.00 | 0.00 | 1300.00 | 1 | No. | 2600 |
| | 02.09.17 | Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application. | 278 | No. | 41.02 | 0.00 | 41.02 | 100 | No. | 114 |
| 19 | 02.09.18 | Weeding and saucer formation to a radius of 0.5 mts around the plant immediately after planting (i.e) during June. | 1111 | No. | 131.20 | 32.80 | 164.00 | 100 | No. | 1822 |
| 20 | 02.09.19 | Circular weeding cum Deep Soil working to a radius of 0.5m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant. (during Nov - Dec) | 1111 | No. | 689.06 | 172.27 | 861.33 | 100 | No. | 9569 |
| 21 | 02.09.20 | Inter-ploughing (during November) the effective (excluding unsuitable patches) plantation area across the slope to a depth of 30 cm with Heavy-duty Tractor of 55 HP and above with Firm Mould Board (FMB) plough | | | | | | | | |
| | | (a) Ordinary soil | 0.50 | Ha | 2553.54 | 0.00 | 2553.54 | 1 | Ha | 1277 |
| | | (b) Hard gravelly soil | 0.50 | Ha | 3502.95 | 0.00 | 3502.95 | 1 | Ha | 1751 |
| 22 | 02.09.21 | Pruning of lower branch initials of Timber and NTFP species by sciculture upto 1/3 rd height (to be done during October) | 1111 | No. | 130.43 | 32.61 | 163.04 | 100 | No. | 1811 |
| 23 | 02.09.22 | Uprootal of Mahaveera (<i>Hyptis suaveolens</i>) weed with prior written approval of Circle Head and taking photograph before and after uprootal. The weed removal shall be completed before September-end at any cost before inter-ploughing. | 1 | Ha | 3833.45 | 958.36 | 4791.81 | 1 | Ha | 4792 |
| 24 | 02.09.23 | Enumeration of row-wise survival and average growth twice in raising year - Number of plants planted and Number surviving (to be undertaken during May & Dec.) and entered in Plantation Journal. Minimum stocking of 90% and average minimum height of 1.5 m at the end of raising year. | | | | To be done by the staff (plantation-in-charge) with the help of Plantation Watcher | | | | |
| 25 | 02.09.24 | Contingencies provision for Raising of plantations: | | | | | | | | |
| | | i) Fixing of Plantation Boards and Corner Stones | 1 | No. | A/a | | | | | 1500 |
| | | ii) Contingencies and Miscellaneous (with in 5% of the estimate cost subject to ceiling of Rs. 5,000/-) | 99813 | | 5% | | | | | 4991 |

| Sl. No. | FSR Code No. | Item of work | Qty | | Rate in Rs. | | | Per | Amount |
|---------|--------------|--|-----|-----|-------------|----------------------|--------------------|-----|---------------|
| | | | | | Asper FSR | Agency allowance 25% | Total | | |
| 26 | 02.09.25 | Cost of Protection: (a) For fenced area: One Casual labour is allowed for the plantation more than 10.00 ha but less than 30.00 ha, in extent and two Casual labourers are allowed for more than 30.00 ha. | 1 | No. | 10 Months | | 9194.85 | | 4597 |
| | | | | | | | Grand Total | | 110901 |

| | |
|-----------------|---------------|
| Total : 2021-22 | 110901 |
| Escalation 10% | 11090 |
| Total: 2022-23. | 121991 |
| Escalation 10% | 12199 |
| Total: 2023-24. | 134190 |
| Escalation 10% | 13419 |
| Total: 2024-25. | 147609 |
| Escalation 10% | 14761 |
| Total: 2025-26. | 162370 |
| Escalation 10% | 16237 |
| Total: 2026-27. | 178607 |
| Escalation 10% | 17861 |
| Total: 2027-28. | 196468 |
| Escalation 10% | 19647 |
| Total: 2028-28. | 216115 |
| Escalation 10% | 21611 |
| Total: 2029-30. | 237726 |
| Escalation 10% | 23773 |
| Total: 2030-31. | 261499 |
| Escalation 10% | 26150 |
| Total: 2031-32. | 287649 |

B. Kumar
Forest Divisional Officer,
Bhadrachalam

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10/01/22

| Unit Cost Estimate for 1st Year maint. of Plantation under SMM | | | | | | | | | | |
|--|--------------|--|-------|-------------|---|----------------|---------|--------|-----|------|
| Sl. No. | FSR Code No. | Item of work | Qty | Rate in Rs. | | | Per | Amount | | |
| | | | | Asper FSR | Agency allowance 25% | Total | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| | 02.03.00 | 1st YEAR MAINTENANCE | | | | | | | | |
| 1 | 02.03.01 | Replacement of Casualties: 25% in 1st year (In case of Eucalyptus: no casualty replacement). The list of all casualty points shall be prepared by concerned FRO by and made a report to DFO latest by end of May. The pitting of all such casualty points shall be over by end of June. The casualty replacement shall be completed by end of July. | | | Pitting, planting, transportation and internal transportation same as precribed in fresh planting | | | | | |
| 2 | | Digging of Pits - Manual : All efforts shall be made to complete pitting works before March-end. Under exceptional circumstances (if the target of plantation is given in the month of March-April), the pitting can be done during June and July. But any pitting done during June-July, plants can only be planted after the pits are verified by field inspections of FROs and DFOs of proper dimensions to avoid simultaneous pitting and planting which may result in higher percentage of caualties. | | | | | | | | |
| | 02.09.06 | Between June - July | | | | | | | | |
| | | b) 45 cm3 pits | 277 | No. | 11.190 | 2.798 | 13.99 | 10 | No. | 3875 |
| 3 | 02.09.07 | (a) Transportation of Planting Stock (including loading and unloading) up to a distance of 5 km | | | | | | | | |
| | | (d) 23 X 28 cm (9"X11") bag plants | 277 | No. | 268.03 | 0.00 | 268.03 | 100 | No. | 742 |
| 4 | 02.09.08 | (b) Transportation of Planting Stock (including loading and unloading) more than 5 km distance and upto 25 km distance | | | | | | | | |
| | | (d) 23 X 28 cm (9"X11") bag plants For the distance of 20 Kms. i.e. 9.42 x 20=Rs. 188.4 / 100 Nos. per Km. | 277 | No. | 9.42 | 0.00 | 188.40 | 100 | No. | 522 |
| 5 | 02.09.10 | Internal transportation to planting points on head loads | | | | | | | | |
| | | (d) 23 X 28 cm (9"X11") bag plants | 277 | No. | 173.08 | 43.27 | 216.35 | 100 | No. | 599 |
| 5 | 02.09.12 | Planting in various size pits | | | | | | | | |
| | | b) Planting in 45 cm3 Pit | 277 | No. | 459.36 | 114.84 | 574.20 | 100 | No. | 1591 |
| 6 | 02.10.02 | Weeding and saucer formation to a radius of 0.5 mts around the plant during June. | 1111 | No. | 131.20 | 32.80 | 164.00 | 100 | No. | 1822 |
| | 02.10.03 | Circular weeding cum Deep Soil working to a radius of 0.5m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant. (during Nov - Dec) | | | | | | | | |
| 8 | | (b) For hard gravelly soil | 1111 | No. | 689.06 | 172.27 | 861.33 | 100 | No. | 9569 |
| 9 | 02.10.04 | Uprootal of Mahaveera (Hyptis suaveolens) weed with prior written approval of Circle Head and taking photograph before and after uprootal. The weed removal shall be completed before August-end (before flowering) at any cost before inter-ploughing. | 1 | Ha | 3833.45 | 0.00 | 3833.45 | 1 | No. | 3833 |
| 9 | 02.10.05 | Inter-ploughing (during September) the effective plantation area (excluding unsuitable patches) across the slope to a depth of 30 cm with Heavy-duty Tractor of 55 HP and above with Firm Mould Board (FMB) plough. This operation shall be carried out after Mahaveera uprootal is completed. Inter-ploughing should not be used as a means of Mahaveera uprootal. | 1 | Ha | 2553.54 | 0.00 | 2553.54 | 1 | No. | 2554 |
| 10 | 02.10.06 | Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height during October. | 1111 | No. | 130.48 | 32.62 | 163.10 | 100 | No. | 1812 |
| | 02.10.07 | Enumeration of row-wise survival and average growth twice a year - Number of plants planted and Number surviving (to be undertaken during May & Dec.) and entered in Plantation Journal. Minimum stocking of 90% and average minimum height of 2.5 m at the end of raising year | | | To be done by the staff (plantation-in-charge) with the help of Plantation Watcher | | | | | |
| 11 | 02.10.08 | Contingencies provision for maintenance of plantaitons: | | | | | | | | |
| | | i) Maintenance of Plantation Boards and Corner Stones | | | As per Actuals | As per Actuals | | | | 500 |
| | | ii) Contingencies and Miscellaneous (with in 3% of the estimate cost subject to ceiling of Rs. 3,000/-) | 27419 | | | | | | | 500 |

| Sl No | FSR Code No. | Item of work | Qty | Rate in Rs. | | | Per | Amount |
|----------|-----------------|---|-----|-------------|----------------------------|---------|-----|--------------|
| | | | | Asper FSR | Agency allowance 25% | Total | | |
| 13 | 02.10.09 | (b) For unfenced area: One Casual labour is allowed for plantation more than 10.00 ha but less than 20.00 ha and one more Casual labour is permitted for multiples of 20.00 ha. | 1 | Months | | 9654.59 | | 965 |
| | | | | | Grand Total | | | 28885 |

Total : 2021-22 **28885**
Escalation 10% **2888**
Total: 2022-23. **31773**
Escalation 10% **3177**
Total: 2023-24. **34950**
Escalation 10% **3495**
Total: 2024-25. **38445**
Escalation 10% **3844**
Total: 2025-26. **42289**
Escalation 10% **4229**
Total: 2026-27. **46518**
Escalation 10% **4652**
Total: 2027-28. **51170**
Escalation 10% **5117**
Total: 2028-28. **56287**
Escalation 10% **5629**
Total: 2029-30. **61916**
Escalation 10% **6192**
Total: 2030-31. **68108**
Escalation 10% **6811**
Total: 2031-32. **74919**


 Forest Divisional Officer,
 Bhadrachalam


 10/01/22

| Unit Cost Estimate for 2nd Year maint. of Plantation under SMM | | | | | | | | | |
|--|-----------------|---|-------|--------|--|----------------------|--------------------|---------|--------------|
| Sl. No. | FSR Code No. | Item of work | Qty | | Rate in Rs. | | | Per | Amount |
| | | | | | Asper FSR | Agency allowance 25% | Total | | |
| 1 | 2 | 3 | 4 | | 5 | 6 | 7 | 8 | 9 |
| | 02.11.00 | 2nd YEAR MAINTENANCE | | | | | | | |
| 1 | 02.11.01 | Broadcasting of Stylosanthes hamata seeds in the inter-planting rows of the plantations raised under semi-mechanical plantations by ploughing with a tractor-mounted cultivator after receipt of good rains in the month of June-July in place of existing provision of inter-ploughing in the month of September given for the 1st and 2nd year MAINTENANCE years of semi-mechanical plantations | | | | | | | |
| | | (b) Inter ploughing using tractors with cultivator in 1st year maintenance and old plantations | 1 | Ha | 2195.83 | 548.96 | 2744.79 | Ha | 2745 |
| 2 | 02.11.02 | Circular weeding cum Deep Soil working to a radius of 0.5m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant. (during Nov - Dec)(b) For hard gravelly soil | 1111 | No. | 689.06 | 172.27 | 861.33 | 100 No. | 9569 |
| 3 | 02.11.03 | Pruning of lower branch initials of Timber and NTFP species by sciculture upto 1/3 rd height <i>during October.</i> | 1111 | No. | 130.48 | 32.62 | 163.10 | 100 No. | 1812 |
| | 02.11.04 | Enumeration of row-wise survival and average growth twice a year - Number of plants planted and Number surviving (to be undertaken during May & Dec.) and entered in Plantation Journal. Minimum stocking of 90% and average minimum height of 2.5 m at the end of raising year | | | To be done by the staff (plantation-in-charge) with the help of Plantation Watcher | | | | |
| 4 | 02.11.05 | Contingencies provision for maintenance of plantations: | | | | | | | |
| | | i) Maintenance of Plantation Boards and Corner Stones | | | | | | | 500 |
| | | ii) Contingencies and Miscellaneous (with in 3% of the estimate cost subject to ceiling of Rs. 3,000/-) | 14126 | | | | | | 500 |
| 6 | 02.11.06 | (b) For unfenced area: One Casual labour is allowed for plantation more than 10.00 ha but less than 20.00 ha and one more Casual labour is permitted for multiples of 20.00 ha. | 1 | Months | | | 9654.59 | | 965 |
| | | | | | | | Grand Total | | 16092 |

Total : 2021-22 16092

Escalation 10% 1609

Total: 2022-23. 17701

Escalation 10% 1770

Total: 2023-24. 19471

Escalation 10% 1947

Total: 2024-25. 21418

Escalation 10% 2142

Total: 2025-26. 23560

Escalation 10% 2356

Total: 2026-27. 25916

Escalation 10% 2592

Total: 2027-28. 28508

Escalation 10% 2851

Total: 2028-28. 31359

Escalation 10% 3136

Total: 2029-30. 34495

Escalation 10% 3449

Total: 2030-31. 37944

Escalation 10% 3794

Total: 2031-32. 41738

Bakun
Forest Divisional Officer,
Bhadrachalam

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10/01/22

Unit Cost Estimate for 3rd to 10th Year maint. of Plantation under SMM

| Sl. No. | FSR Code No. | Item of work | Qty | Rate in Rs. | | | Per | Amount |
|---------|--------------|---|-----|-------------|----------------------|--------------------|-----|-------------|
| | | | | Asper FSR | Agency allowance 25% | Total | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 02.11.00 | 3rd YEAR MAINTENANCE | | | | | | |
| 1 | 02.11.06 | (b) For unfenced area: One Casual labour is allowed for plantation more than 10.00 ha but less than 20.00 ha and one more Casual labour is permitted for multiples of 20.00 ha. | 1 | Months | | 9654.59 | | 9654 |
| | | | | | | Grand Total | | 9654 |

| | |
|-----------------|-------|
| Total : 2021-22 | 9654 |
| Escalation 10% | 965 |
| Total: 2022-23. | 10619 |
| Escalation 10% | 1062 |
| Total: 2023-24. | 11681 |
| Escalation 10% | 1168 |
| Total: 2024-25. | 12849 |
| Escalation 10% | 1285 |
| Total: 2025-26. | 14134 |
| Escalation 10% | 1413 |
| Total: 2026-27. | 15547 |
| Escalation 10% | 1555 |
| Total: 2027-28. | 17102 |
| Escalation 10% | 1710 |
| Total: 2028-28. | 18812 |
| Escalation 10% | 1881 |
| Total: 2029-30. | 20693 |
| Escalation 10% | 2069 |
| Total: 2030-31. | 22762 |
| Escalation 10% | 2276 |
| Total: 2031-32. | 25038 |

Bahur
Forest Divisional Officer,
Bhadrachalam

By
10/6/22