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Raising of Plantation under Semi Mechanical Method with 3m x 3m espacement

Unit area 1.00 Ha.

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
II	<b>RAISING OF BLOCK PLANTATIONS</b>				
02.09.	<b>SEMI-MECHANICAL PLANTATION</b>				
02.09.	<b>PLANTING OPERATIONS DURING RAISING YEAR</b>				
02.09.01	Removing congestion of root suckers and other uprooted material hindering the effective ploughing	1	1066.07	Ha	1066.07
	<b>Deep Ploughing</b> 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 ( <b>FOR UNTILLED AREA</b> ) - to be completed by 15th of June				
02.09.02	(b) Hard soils like gravel and morum	1	5109.90	Ha	5109.90
	<b>Note:</b> After intensive site preparation including clear-felling, burning, stump uprootal, removal of uprooted material, ploughing with the provision of removal of remnants of root suckers from soil, it is expected that there would not be any coppice growth subsequently at least for next 5-7 years.				
	<b>Alignment &amp; Stacking including demarcation of base line</b>				
02.09.04	(c) 3X3 m espacement = 1111 planting points	1111	89.36	100No.	992.79
02.09.05	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	1200	100No.	13332.00
	<b>Digging of Pits in Ploughed Areas in June - July by adopting 50% of original rate of digging of pits of ordinary soil</b>				
02.15.03	b) 60 cm <sup>3</sup> pits (48.56/2 = 24.2812)	1111	24.28	Pit	26976.47
	<b>PLANTING OPERATIONS DURING RAISING YEAR</b>				
02.09.07	Transportation of planting stock (including loading and unloading upto a distance of 5 Kms)				
	(b) 30 X 32.5 cm (12"X13") bag plants	1111	206.43	100 Nos.,	2293.00
02.09.08	<b>Transportation of Planting Stock</b> (including loading and unloading) more than 5 km distance and upto 25 km distance				
	(b) 30 X 32.5 cm (12"X13") bag plants	1111	153.00	100 Nos.,	1700.00
02.09.09	<b>Transportation of Planting Stock</b> (including loading and unloading) more than 25 km distance and for every extra km (with prior written approval of Circle Head)				
	(b) 30 X 32.5 cm (12"X13") bag plants	1111	77.00	100 Nos.,	855.00
02.09.10	<b>Internal transportation</b> to planting points on head loads				
	(b) 30 X 32.5 cm (12"X13") bag plants	1111	142.01	100 Nos.,	1578
	<b>PLANTING: Seedlings of local species of secondary hardwood along with their associates and NTFP species will have to be chosen for planting. The minimum height of the planting stock to be planted is 0.75 m - 1m height (excluding the height of the bag)</b>				

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.09.11	<b>Application of 50 gm of SSP per pit</b> (1 day before planting) for root growth and early establishment of plant after planting. Similarly, the bag plants to be planted are to be dipped inside Chloropyriphos solution (5 ml of Chloropyriphos in 1 lit water) either at nursery site before transport or at plantation site before planting	1111	39.27	100 Nos.,	436
	<b>Cost of SSP, Chloridine dust (50 gm) or Chloropyriphos (Rs. 2/- per plant)</b>	As per actual	2222	Ha.	2222
02.09.12	Planting in 60 cm <sup>3</sup> Pit	1111	970.88	100 Nos.,	10787
02.09.14	Watering (one time) immediately after planting if the planting takes place on a non-rainy days and during dry spell - 4 waterings	1111	1059.44	100 Nos.,	11770
02.09.15	<b>Replacement of Casualties:</b> 20% during Raising Year & 25% in 1 <sup>st</sup> year The casualty replacement should be done in 3 stages at an interval of 15 days immediately after planting during raising year.	50% of unit rate of original pitting during raising year and 100% during maint. year. Planting, transportation and internal			
	Digging of pits	222	48.563	Each	10781
	Transportation of planting stock (including loading and unloading upto a distance of 5 Kms)	222	206.43	100 Nos.,	458
	<b>Transportation of Planting Stock</b> (including loading and unloading) more than 5 km distance and upto 25 km distance	222	153.00	100 Nos.,	340
	Transportation of Planting Stock (including loading and unloading) more than 25 km distance and for every extra km (with prior written approval of Circle Head)	222	77.00	100 Nos.,	171
	Internal transportation to planting points on head loads	222	142.01	100 Nos.,	315
	(b) Planting in 60 cm <sup>3</sup> Pit	222	970.88	100 Nos.,	2155
02.09.16	<b>Cost of DAP @ 25 gm / planting point</b>	1111	1.20	Each	1333
02.09.17	<i>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.</i>	1111	39.27	100 Nos.,	436
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	124.95	100 Nos.,	1388
02.02.19	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	656.25	100 Nos.,	7291
02.09.20	<b>Inter-ploughing</b> (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				
	(b) Hard gravelly soil	1	3184.50	1.00	3185
02.09.21	<b>Pruning of lower branch initials</b> of Timber and NTFP species by scicature upto 1/3 rd height (to be done during October)	1111	124.22	100 Nos.,	1380
02.09.22	<b>Uprootal of Mahaveera (<i>Hyptis suaveolens</i>) weed</b> 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	3650.90	Ha.	3651
02.09.24	<b>Contingencies provision for Raising of plantaitons:</b>	As per actual			1000

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FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
03.01.04	Formation of Sector Lines / Fire Lines to a width of 5 m by giving surface treatment (sector to be in conformity with slope direction ). All stumps to be cut to ground level.	100	8.22	Rmt	822
02.09.25	<b>Cost of Protection:</b> (b) For un-fenced area: One Casual labour is allowed for the plantation more than 10.00 ha but less than 20.00 ha. in extent and one more Casual labour allowed for multiples of 20.00 ha.	1	4138	Ha	4138
			<b>Total</b>		<b>117962</b>
Unit Rate for 2020-21					117962

  
Forest Divisional Officer,  
Mancherial

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Advance Operations under Semi Mechanical Method with 3m x 3m espacement

Unit area 1.00 Ha.

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.01.00	<b>ADVANCE OPERATION (PRE-PLANTING OPERATION)</b> - 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 images of the existing vegetation, preparation of treatment plan shall be prepared and approved in writing by DFO before taking up advance operation.				
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 latest by December end.	1	356.65	Plantation	357
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, Chenangi etc. and NTFP species like Ippa, Morri, Tani, Karaka, Vepa, Maredu, Tapasi, Tuniki, Chinta, Usuri, Nallajeedi etc.); Spreading the cut material all over the site; and Burning the same twice till completely burnt. The unsuitable area shall be excluded from the clearing operation and the expenditure shall be incurred for effective area only. All the above operations shall be completed before December.				
	(a) Sparse Jungle growth (<10% ground area covered with Jungle growth)	0.40	2081.36	Ha	833
	(b) Very light jungle growth (>10% and upto 20% covered with Jungle growth)	0.40	3128.53	Ha	1251
	(c) Light Jungle Growth (>20% and upto 30% ground area covered with Jungle growth) with prior written approval of DFO based on the field inspection of DFO.	0.20	7350.00	Ha	1470
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 retrieved 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.				
	(a) Sparse Jungle Growth (< 10% ground area covered with Jungle growth)	0.40	5184.30	Ha	2074
	(b) Very Light Jungle Growth (>10% and upto 20% ground area covered with Jungle growth)	0.40	10034.10	Ha	4014
	(c) Light Jungle Growth (> 20% and upto 30% ground area covered with Jungle growth) with prior written approval of DFO based on the field inspection of DFO.	0.20	13044.80	Ha	2609
02.08.04	Collection and Removal of Uprooted Stumps of all sizes, other debris etc., to outside the plantation site.				
	(a) Sparse Jungle Growth (< 10% ground area covered with Jungle growth)	0.40	5796.11	Ha	2318
	(b) Very Light Jungle Growth (>10% and upto 20% ground area covered with Jungle growth)	0.40	9197.79	Ha	3679
	(c) Light Jungle Growth (> 20% and upto 30% ground area covered with Jungle growth) with prior written approval of DFO based on the field inspection of DFO.	0.20	10724.65	Ha	2145
			<b>Total</b>		<b>20750</b>
		Unit Rate for 2020-21			<b>20750</b>

Forest Divisional Officer,  
Manchenra



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**1st year maintenance of Plantation under Semi Mechanical Method with 3m x 3m espacement**

Unit area 1.00 Ha.

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
	Cost of transportation of soil mixtue for filling the pit and spreading around the pit - 25 % of pit - 0.25 x 0.6 cm x 0.6 cm x 0.6 cm	21.6	352.23	cum	7608
02.10.01	<b>Replacement of Casualties:</b> 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			
	Digging of pits	278	48.563	Each	13500
	Transportation of planting stock (including loading and unlaoding upto a distance of 5 Kms)	278	206.430	100 Nos.,	574
	<b>Transportation of Planting Stock</b> (including loading and unloading) more than 5 km distance and upto 25 km distance	278	153.000	100 Nos.,	425
	Transportation of Planting Stock (including loading and unloading) more than 25 km distance and for every extra km (with prior written approval of Circle Head)	278	77.000	100 Nos.,	214
	Internal transportation to planting points on head loads	278	142.010	100 Nos.,	395
02.15.11	(b) Planting in 60 cm <sup>3</sup> Pit	278	970.883	100 Nos.,	2699
02.02.11	Cost of DAP @ 25 gm / planting point	1111	1.12	Each	1244
02.09.14	Watering (one time) immediately after planting if the planting takes place on a non-rainy days and during dry spell - 4 waterings	1111	1059.44	100 Nos.,	11770
02.10.02	Weeding and saucer formation to a radius of 0.5 mts around the plant immediately after planting (i.e) during June.	1111	124.95	100 Nos.,	1388
02.10.03	Circular weeding cum Deep Soil working to a redius 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	656.25	100 Nos.,	7291
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	3650.90	1.00	3651
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	2321.40	1.00	2321
02.10.06	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July-Aug)	1111	124.27	100.00	1381
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				0
02.10.08	Contingencies provision for maintenance of plantaitons:				500
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
02.10.09	<b>Cost of Protection:</b> (b) For un-fenced area: One Casual labour is allowed for the plantation more than 10.00 ha but less than 20.00 ha. in extent and one more Casual labour allowed for multiples of 20.00 ha.	1	5517	Ha	5517
			<b>Total</b>		<b>61086</b>
			Unit Rate for 2020-21		61086


  
 Forest Divisional Officer,  
 Mancherial

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**2nd year maintenance Plantatation under Semi Mechanical Method with 3m x 3m espacement**

*Unit area 1.00 Ha.*

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.10.01	<b>Replacement of Casualties:</b> 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 prescribed in fresh planting			
	Digging of pits	278	48.563	Each	13500
	Transportation of planting stock (including loading and unloading upto a distance of 5 Kms)	278	206.430	100 Nos.,	574
	<b>Transportation of Planting Stock</b> (including loading and unloading) more than 5 km distance and upto 25 km distance	278	153.000	100 Nos.,	425
	Transportation of Planting Stock (including loading and unloading) more than 25 km distance and for every extra km (with prior written approval of Circle Head)	278	77.000	100 Nos.,	214
	Internal transportation to planting points on head loads	278	142.010	100 Nos.,	395
02.15.11	(b) Planting in 60 cm <sup>3</sup> Pit	278	970.883	100 Nos.,	2699
02.11.01	Broadcasting of grass seeds in the interplanting rows of the plantations raised under semimechanical 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 interploughing 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	1996.21	1	1996
	(c) Broadcasting of Grass seeds followed by dragging / sweeping with a bunch of thorny branches to ensure a thin cover of soil over the broadcasted seeds.	1	88.83	1	89
02.09.14	Watering (one time) immediately after planting if the planting takes place on a non-rainy days and during dry spell - 4 waterings	1111	1059.44	100 Nos.,	11770
02.11.02	Circular weeding cum Deep soil working to a radius of 0.5 m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant. (July-Aug)	1111	656.25	100 Nos.,	7291
02.11.03	Pruning of lower branch initials of Timber and NTFP species by sciculture upto 1/3 rd height (to be done during July-Aug)	1111	124.27	100 Nos.,	1381
02.11.05	Contingencies provision for maintenance of plantations:				
	i) Maintenance of Plantation Boards and Corner Stones				300
	ii) Contingencies and Miscellaneous				300
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - proportionate cost - 0.60 times	100	608.27	100 Rmt	608
02.02.20	<b>Cost of Protection:</b> (b) For un-fenced area: One Casual labour is allowed for the plantation more than 10.00 ha but less than 20.00 ha. in extent and one more Casual labour allowed for multiples of 20.00 ha.	1	5517	Ha	5517
			<b>Total</b>		<b>47059</b>
		Unit Rate for 2020-21			47059

  
**Forest Divisional Officer,**  
**Mancherial**

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3rd year maintenance Plantatation under Semi Mechanical Method with 3m x 3m espacement

Unit area 1.00 Ha,

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.11.02	Circular weeding cum Deep soil working to a radius of 0.5 m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant. (July-Aug)	1111	656.25	100 Nos.,	7291
02.11.03	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July-Aug)	1111	124.27	100 Nos.,	1381
02.09.14	Watering (one time) immediately after planting if the planting takes place on a non-rainy days and during dry spell - 4 waterings	1111	1059.44	100 Nos.,	11770
02.11.05	Contingencies provision for maintenance of plantaitons:				
	i) Maintenance of Plantation Boards and Corner Stones				300
	ii) Contingencies and Miscellaneous				300
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
02.02.20	<b>Cost of Protection:</b> (b) For un-fenced area: One Casual labour is allowed for the plantation more than 10.00 ha but less than 20.00 ha. in extent and one more Casual labour allowed for multiples of 20.00 ha.	1	2758	Ha	2758
			<b>Total</b>		<b>24409</b>
		Unit Rate for 2020-21			24409


  
Forest Divisional Officer,  
Mancheria

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**4th year maintenance Plantatation under Semi Mechanical Method with 3m x 3m espacement**

Unit area 1.00 Ha,

FSR Item No	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.11.02	Circular weeding cum Deep soil working to a radius of 0.5 m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant. (July-Aug)	1111	656.25	100 Nos.,	7291
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
02.11.03	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July-Aug)	1111	124.27	100 Nos.,	1381
02.11.05	Contingencies provision for maintenance of plantaitons:				
	i) Maintenance of Plantation Boards and Corner Stones				300
	ii) Contingencies and Miscellaneous				300
			<b>Total</b>		<b>9880</b>
Unit Rate for 2020-21					9880

  
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**Mancherial**




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5th year maintenance Plantatation under Semi Mechanical Method with 3m x 3m espacement

Unit area 1.00 Ha.

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.11.02	Circular weeding cum Deep soil working to a radius of 0.5 m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant. (July-Aug)	1111	656.25	100 Nos.,	7291
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
02.11.03	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July-Aug)	1111	124.27	100 Nos.,	1381
02.11.05	Contingencies provision for maintenance of plantaitons:				
	i) Maintenance of Plantation Boards and Corner Stones				300
	ii) Contingencies and Miscellaneous				300
			<b>Total</b>		<b>9880</b>
		Unit Rate for 2020-21			9880

  
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6th year maintenance Plantatation under Semi Mechanical Method with 3m x 3m espacement

Unit area 1.00 Ha,

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
02.11.03	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July-Aug)	1111	124.27	100 Nos.,	1381
			<b>Total</b>		<b>1989</b>
		Unit Rate for 2020-21			1989

  
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8th year maintenance Plantatation under Semi Mechanical Method with 3m x 3m espacement

Unit area 1.00 Ha.

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
02.11.03	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July-Aug)	1111	124.27	100 Nos.,	1381
			<b>Total</b>		<b>1989</b>
		Unit Rate for 2020-21			1989

  
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9th year maintenance Plantatation under Semi Mechanical Method with 3m x 3m espacement

Unit area 1.00 Ha.

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.11.02	Circular weeding cum Deep soil working to a radius of 0.5 m and to a depth of 15 cm (to be done by pick-axe only) without damaging the plant. (July-Aug)	1111	656.25	100 Nos.,	7291
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
			<b>Total</b>		<b>7899</b>
		Unit Rate for 2020-21			7899

  
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10th year maintenance Plantatation under Semi Mechanical Method with 3m x 3m espacement

Unit area 1.00 Ha,

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
02.11.03	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July-Aug)	1111	124.27	100 Nos.,	1381
			<b>Total</b>		<b>1989</b>
Unit Rate for 2020-21					1989

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UNIT COST FOR MAINTENANCE OF BAG PLANTS (September to till disposal)

Sl. No.	FSR-2020-21 Code	Item of work	Unit	Quantity	As per FSR		Amount (Rs.)
					Rate (Rs.)	Per	
		<b>MAINTENANCE OF BAG NURSERY FROM SEPTEMBER TO TILL DISPOSAL</b>					
1	01.05.01	Watering plants for 10 m X 1 m size secondary bed	Bed/month	4	177.14	1	708.54
2	01.05.02	Shifting, grading and rearrangement in beds	Bed/weeding	1	245.96	1	245.96
3	01.05.04	<b>Cost of Protection:</b> One Nursery Watcher is allowed up to 1 lakh RT nursery or 100 secondary beds of polybags / 100 Teak beds of 10 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 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 to include the nursery raising under all Schemes at a particular site. No extra Nursery Watcher is allowed for primary beds of 1x1 m size. However, the above narrative is subject to the provisions cited under general instructions.	Watcher/month	5	9194.00	100	459.70
		<b>Total</b>					<b>1414.20</b>
		<b>cost of each plant (300 Plants per bed)</b>					<b>4.7140</b>

10% escalation every year

  
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UNIT COST FOR MAINTENANCE OF BAG PLANTS (April to August)

Sl. No.	FSR-2020-21 Code	Item of work	Unit	Quantity	As per FSR		Amount (Rs.)
					Rate (Rs.)	Per	
	01.04.00	<b>MAINTENANCE OF BAG PLANTS NURSERY UPTO PLANTING SEASON (APRIL TO AUGUST)</b> for 10 m X 1 m size secondary beds (2600 Nos of 4" X 7" bags; 1700 Nos of 5" X9" bags ; 1100 Nos. of 6"X12" bags; 800 Nos. of 8"X12" bags; 300 Nos. of 12"x13" bags: 400 Nos. of 10"x16" bags per bed)					
	01.04.01	Watering polybag secondary beds twice a day for 4 months					
1	a	Manually with rose spray or finely perforated nozzle attached to a hose pipe	Bed/month	4	273.10	1	1092.40
2	01.04.02	Weeding once during maintenance year	Bed/weeding	1	52.66	1	52.66
3	01.04.03	Shifting, grading and rearrangement in beds	Bed/shifting	2	245.96	1	491.92
4	01.04.05	Cost of foliar nutritient formulations like multiplex or NPK-19:19:19; fungicides and insecticides from April to August	As per actuals	1	20.00	1	20.00
	01.04.06	Cowdung Slurry application (One can apply chemical foliar spray or apply cowdung slurry - not both)					
5	a	Cost and transportation of fresh cowdung	As per actuals	1	25.00	1	25.00
6	01.04.07	Weeding in the space between the beds, inspection path and surroundings of Nursery	Bed	1	28.98	1	28.98
7	01.05.04	<b>Cost of Protection:</b> One Nursery Watcher is allowed up to 1 lakh RT nursery or 100 secondary beds of polybags / 100 Teak beds of 10 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 secondray beds or Teak beds of 10 x 1 m size or combination of both. For more than 3 lakh RT or 300 secodary beds of Teak bedsor combination of both another additional Nursery Watcher is allowed. While calculating the number of Nursery Watcher, care shall be taken to include the nursery raising under all Schemes at a particular site. No extra Nursery Watcher is allowed for primary beds of 1x1 m size. However, the above narrative is subject to the provisions cited under general instructions.	Watcher/ month	4	9194.00	100	367.76
8	01.04.09	Electricity charges			500.00		500.00
		<b>Total</b>					<b>2578.72</b>
9	01.04.08	Contingencies @ 5%					<b>128.94</b>
		<b>2020-21 Total</b>					<b>2707.66</b>
		<b>cost of each plant (300 Plants per bed)</b>					<b>9.0255</b>

10% escalation every year

  
 Forest Divisional Officer,  
 Mancheria

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**UNIT COST FOR CONVERSION FROM 6"x8" to 12"x13"**

Sl. No.	FSR-2020-21 Code	Item of work	Unit	Quantity	As per FSR		Amount (Rs.)
					Rate (Rs)	Per	
		<b>CONVERSION of Root Trainer plants or 6"x8" or 12"x13" bag-plants into higher size bags</b> - to be done during September - October. At the time of conversion, the height of the plants should be at least above 0.45m in height (excluding the height of polybag).					
		<b>Cost and Transport of ingredients for Potting Mixture:</b> Red Soil, tank-silt / clayey soil, FYM in 2:1:1 ratio. To this soil mixture, 220 gm of Indophyll M-45, 4.5 kg of single super phosphate (SSP) and 250 gm of phorate granules per 1 cum of potting mixture will be added. Cost of chemicals is as per actuals.					
	01.03.03	<b>Cost of Gusseted Polybags</b> (including the cost of certification by ): To ensure quality control, the quality of bags have to be certified by CIPET (Central Institute of Plastic Engineering & Technology), Hyderabad at the cost of tenderer by taking samples from various lots of polybags.					
		g) 30 cm x 32.50 cm (12" x 13") size Gusseted Polybags: 400g, 52 bags/ kg ( 300 + 15% = 345) (345/52 = 6.63 Kgs)	Kgs	6.635	180.00	1	1194.23
	01.03.24	<b>Transportation of soil mixture ingredients</b>					
		<b>Distance up to 5 km</b>					
1	c	(k) 6" x 8" to 12" x 13" bags ( 9.315 - 1.433 = 7.882 cum) ( 20 Km x 72.40 = 1448.00 )	No	300	1448.00	1000	434.40
	01.03.25	<b>Transportation of soil mixture ingredients more than 5 km distance and upto 25 km distance</b>					
2	c	(f) 6" x 8" to 12" x 13" bags ( 9.315 - 1.433 = 7.882 cum)	No	300	4112.55	1000	1233.77
	01.03.27	<b>Preparation of Potting Mixture</b> 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)					
3	c	6" x 8" to 12" x 13" bags ( 9.315 - 1.433 = 7.882 cum)	No	300	5196.99	1000	1559.10
	01.03.33	<b>Weeding the plants</b> (1100 no. of 6"x12"bags; 800 no. of 8"x12" bags; and 400 no. of 10"x16" bags) from November - March: 2 weedings					
4		<b>Weeding the plants (2 weedings)</b>	Bed	2	52.66	1	105.32
5	01.03.34	Shifting, Grading and rearranging in secondary beds - One Grading in February	Bed	2	245.96	1	491.92
	01.03.35	<b>Watering the plants manually twice a day</b> (from Novemebr - March) with rose spray or finely perforated nozzle attached to a hose pipe.					
6	a	Manually with rose spray or finely perforated nozzle attached to a hose pipe	Bed	5	286.81	1	1434.05

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	01.03.37	Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides from July to Oct.					30.00
7	01.05.04	<b>Cost of Protection:</b> One Nursery Watcher is allowed up to 1 lakh RT nursery or 100 secondary beds of polybags / 100 Teak beds of 10 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 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 to include the nursery raising under all Schemes at a particular site. No extra Nursery Watcher is allowed for primary beds of 1x1 m size. However, the above narrative is subject to the provisions cited under general instructions.	Bed	4	9194	100	367.76
8		Cost of the polythene bags					2340.00
9	01.03.39	Electricity charges					500.00
		<b>Total</b>					<b>9690.54</b>
10	01.03.38	Contingencies @ 5%					484.527
		<b>2020-21 Total for 300 plants</b>					<b>10175.07</b>
		<b>cost of each plant</b>					<b>33.9169</b>

10% escalation every year

  
 Forest Divisional Officer,  
 Mancherial

957-

**UNIT COST FOR MAINTENANCE OF BAG PLANTS (6"x8")**

Sl. No.	FSR-2020-21 Code	Item of work	Unit	Quantity	As per FSR		Amount (Rs.)
					Rate (Rs)	Per	
		<b>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" bags; 800 Nos. of 8"X12" bags; 400 Nos. of 10"x16" bags per bed)</b>					
1	01.03.19	(a) Manually with rose cans or finely perforated nozzle attached to a hose pipe	Bed	5	273.10	1	1365.50
2	01.03.20	Weeding the beds during May & July	Bed	2	52.66	1	105.32
3	01.03.21	Shifting, grading and rearrangement in beds	Bed	1	245.96	1	245.96
4		Electricity charges					300.00
5	01.05.04	<b>Cost of Protection:</b> One Nursery Watcher is allowed up to 1 lakh RT nursery or 100 secondary beds of polybags / 100 Teak beds of 10 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 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 to include the nursery raising under all Schemes at a particular site. No extra Nursery Watcher is allowed for primary beds of 1x1 m size. However, the above narrative is subject to the provisions cited under general instructions.	Bed	4	9194	100	367.76
		<b>2020-21 Total</b>					<b>2384.54</b>
		<b>cost of each plant (1100 plants per bed)</b>					<b>2.1678</b>

10% escalation every year

  
 Forest Divisional Officer,  
 Mancherla



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**UNIT COST FOR BAG PLANT NURSERY**

Sl. No.	FSR-2020-21 Code	Item of work	Unit	Quantity	As per FSR		Amount (Rs.)
					Rate (Rs)	Per	
	01.03.	<b>BAG PLANT NURSERY:</b> Seedlings need to be raised in 4"x7" (200 gauge) or 5"x9" (250 gauge) bags which are to be converted into 6"x12" (400 gauge) or 8"x12" (400 gauge) or 10"x16" (400 gauge) polybags. The seedlings are to be transplanted from primary beds in February - March. Hence the bags are to be filled during January - February when the soil is dry.					
		<b>Raising of Nursery in Polythene bags in sizes of 4"x7" (200 gauge) or 6"x8" (250 gauge) bags and arranging in secondary beds (Bed size: 10.00 m X 1.00 m).</b>					
1	01.03.01	Site preparation for New Sites - Clearing of growth, uprootal of stumps and removal of surface stones, rubbish of all sorts etc.	Bed	1	52.08	1	52.08
		Cost of Polybags (including the cost of certification by): To ensure quality control, the quality of bags have to be certified by CIPET (Central Institute of Plastic Engineering & Technology), Hyderabad at the cost of tenderer by taking samples from various lots of polybags.					
2	01.03.03	(b) 15.00 cm x 20.00cm(6" x 8") size bags: 250 g: 275 Nos / kg ( 1100 + 15% = 1265) (1265/275 = 209.09 Kgs)	Kg	4.60	180.00	1	828.00
	0.1.03.04	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 single super phosphate (SSP) and 250 gm of phorate granules per 1 cum of potting mixture will be added. Cost of chemicals is as per actuals.					
	<b>01.03.05</b>	<b>Distance upto 5 km</b>					
3	01.03.05	(c) 15.00 Cm X 20.00 cm( 6" X 8") size Gusseted Polybags of 250 gauge : 1.433 Cu.m Volume for 1000 bags	No's	1100	529.99	1000	582.99
	<b>01.03.06</b>	<b>For every extra km beyond 5 km upto 25 km</b>					
4	01.03.06	12.5 cm x 22.5 cm (5" x 9") = 1.12 cum vol. for 1000 bags ( 20 Kms x 13.18 = 206.00)	No's	1100	263.60	1000	289.96
	<b>01.03.08</b>	<b>Preparation of Potting Mixture by powdering of various ingredients, sieving and mixing them in prescribed proportion; opening of bags and filling with potting mixture and gently pressing the same with finger tips and arranging in beds.</b>					
5	01.03.08	(c) 15.00 Cm X 20.00 cm( 6" X 8") 1100 bags per bed	No's	1100	1048.37	1000	1153.21
6	01.03.09	Alignment of beds including alignment of inspection paths etc	Bed	1	7.98	1	7.98
7	01.03.10	Pricking out seedlings from primary beds and transplanting into polybags	No's	1100	147.74	1000	162.51
8	01.03.11	Sowing / dibbling of pretreated seeds (e.g. Yegisa, Nalamadi, Yerumaddi etc.) directly into bags including cost of treatment	No's	1100	83.70	1000	92.07

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9	01.03.12	<b>Watering the plants (2 Months) twice a day from Feb-March - a) Manually with rose cans or finely perforated nozzle attached to a hose pipe</b>	Bed	4	286.76	1	1147.04
10	01.03.13	Weeding to be done for every 2 months from the date of transplantation up to March	Bed	4	52.66	1	210.64
11	01.03.14	1st shifting and grading after three months and consecutive shifting and grading after every two months till the nursery stock is lifted	Bed	1	245.96	1	245.96
12	01.03.15	Replacement of casualties after sorting out the empty bags and keeping at one end of the bed (maximum 10% of total stock is permissible)	Bed	1	69.83	1	69.83
13	01.03.16	Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides from July to Oct.	Bed	1	34.00	1	34.00
14	01.03.18	Weeding in the space between the beds, inspection path and surroundings of Nursery	Bed	2	35.91	1	71.82
15	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 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 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 to include the nursery raising under all Schemes at a particular site. No extra Nursery Watcher is allowed for primary beds of 1x1 m size. However, the above narrative is subject to the provisions cited under general instructions.	Bed	4	9194	100	367.76
16		Electricity charges					300.00
		<b>Total</b>					<b>5615.85</b>
17		Add casualty 10%					751.09
		<b>2020-21 Grand Total</b>					<b>6366.94</b>
		<b>cost of each plant (1100 plants per bed)</b>					<b>5.7881</b>

10% escalation every year

  
 Forest Divisional Officer,  
 Mancherial

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**UNIT COST FOR RAISING OF PRIMARY BEDS**

Sl. No.	FSR-2020-21 Code	Item of work	Unit	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	7
1	01.00.00	<b>PRIMARY BEDS</b> of 1x1x0.3 m size for Miscellaneous species including bamboo - 50 primary beds for 1 lakh nursery is permitted. Primary beds should start from Jan - May depending on availability of fresh seeds. Once primary beds are formed, they can be used upto 5 years without changing the medium - what is required each time is solarization, burning a layer of grass on it and adding the below recommended fungicides and insecticides to the medium.			
2	01.01.01	Preparation of New Site by clearing jungle growth, uprootal of stumps and removal of surface stones, pebbles etc.	Bed	5.20	5.20
3	01.01.03	Digging soil of the demarcated beds of 1x1x0.30 m size	Bed	40.06	40.06
4	01.01.04	Cost of sandy soil and transportation with 5 kms lead including loading and unloading charges (sandy soil and FYM in 5:1 ratio, i.e., 0.125 cum sandy soil and 0.025 cum FYM per primary bed	Bed	30.2925	30.29
5	01.01.05	For every extra km beyond 5 km upto 25 km	Bed	1.15	1.15
6	01.01.06	Cost and transport of 0.025 cum FYM	Bed	26.04	26.04
7	01.01.07	Mixing of sandy soil and FYM in 5:1 proportion (50 % of volume of bed) with excavated soil and refilling the bed and levelling.	Bed	11.39	11.39
8	01.01.08	Covering the beds with dried grass and leaf litter and burning them to ash which can form the upper layer	Bed	13.02	13.02
10	01.01.10	Cost of seed - seed weight, germination percentage and target of planting stock of individual species are to be taken into consideration while estimating the requirement of seeds	Bed	350.00	350.00
11	01.01.12	Sowing of seed (finer seeds like Adina, Mitragyna, Anthocephalus etc. to be mixed with sand and broadcasted - 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	Bed	12.97	12.97
12	01.01.13	Watering the primary nursery beds with rose water cans twice daily for a maximum period of 2 months.	45 Days	14.60	14.60
13	01.01.14	Kerbing the primary beds all around with Cement Bricks (in permanent nurseries only), if required. In all such permanent primary beds, no incurring of expenditure for making the primary beds every year is permitted except for cost of fungicides.	Bed	39.00	39.00
14	01.01.15	Cost of chemicals, fungicide and insecticide	Bed	39.00	39.00
16		Electrical Charges		32.00	32.00
		<b>Total</b>			<b>614.71</b>
		<b>Rasing of seedlings 110% for obtaining 100%</b>		10%	<b>61.47</b>
		<b>Total</b>			<b>676.18</b>
		<b>cost of each plant (2000 plants per bed)</b>			<b>0.34</b>

  
 Forest Divisional Officer,  
 Mancherial