

### Plantation Purchase Values (by age, dbh, and trees/acre)

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Teddy Reynolds, BSF, RF, SR

Technique	3-Pass Plow				2-Pass Plow				Subsoil & Chemical				Chemical & Burn				Burn				Seed Tree				Shelterwood				Technique	Average Purchase Value																		
	Rate								Rate								Rate								Rate								Rate								Rate							
Age	Value	Dbh	Trees Per Acre	Future Cost	Value	Dbh	Trees Per Acre	Future Cost	Value	Dbh	Trees Per Acre	Future Cost	Value	Dbh	Trees Per Acre	Future Cost	Value	Dbh	Trees Per Acre	Future Cost	Value	Dbh	Trees Per Acre	Future Cost	Value	Dbh	Trees Per Acre	Future Cost	Value	Dbh	Trees Per Acre	Future Cost	Age															
1	\$ 830	NA	446	\$ 86	\$ 739	NA	436	\$ 161	\$ 758	NA	436	\$ 45	\$ 690	NA	477	\$ 43	\$ 676	NA	477	\$ -	\$ 548	NA	1000	\$ 69	\$ 546	NA	1000	\$ 70	1	\$ 684																		
2	\$ 881	0.5	446	\$ 91	\$ 785	0.6	436	\$ 171	\$ 803	0.4	436	\$ 48	\$ 727	NA	477	\$ 45	\$ 707	NA	477	\$ -	\$ 577	NA	1000	\$ 73	\$ 573	NA	1000	\$ 74	2	\$ 722																		
3	\$ 935	1.5	446	\$ 97	\$ 833	1.6	436	\$ 181	\$ 850	1.2	436	\$ 50	\$ 767	0.5	477	\$ 48	\$ 738	NA	477	\$ -	\$ 607	NA	1000	\$ 77	\$ 602	NA	1000	\$ 78	3	\$ 762																		
4	\$ 992	2.6	446	\$ 103	\$ 976	2.7	436	\$ 102	\$ 900	2.1	436	\$ 53	\$ 809	0.5	477	\$ 50	\$ 772	0.1	477	\$ -	\$ 640	NA	1000	\$ 81	\$ 632	NA	1000	\$ 82	4	\$ 817																		
5	\$ 1,053	3.6	446	\$ 109	\$ 1,036	3.7	436	\$ 109	\$ 953	3.1	436	\$ 56	\$ 853	1.1	477	\$ 53	\$ 806	0.8	477	\$ -	\$ 673	0.30	1000	\$ 85	\$ 664	NA	1000	\$ 86	5	\$ 863																		
6	\$ 1,118	4.6	446	\$ 116	\$ 1,101	4.7	436	\$ 115	\$ 1,009	4.0	436	\$ 60	\$ 899	1.8	477	\$ 56	\$ 843	1.6	477	\$ -	\$ 799	1.00	538	\$ -	\$ 787	0.30	538	\$ -	6	\$ 937																		
7	\$ 1,186	5.5	446	\$ 123	\$ 1,169	5.6	436	\$ 122	\$ 1,068	4.7	436	\$ 63	\$ 948	2.6	477	\$ 59	\$ 880	2.5	477	\$ -	\$ 842	1.80	538	\$ -	\$ 827	1.00	538	\$ -	7	\$ 989																		
8	\$ 1,259	6.3	446	\$ 131	\$ 1,242	6.4	436	\$ 130	\$ 1,131	5.4	436	\$ 67	\$ 1,000	3.5	477	\$ 62	\$ 920	3.3	477	\$ -	\$ 886	2.70	538	\$ -	\$ 868	1.80	538	\$ -	8	\$ 1,044																		
9	\$ 1,336	7.0	446	\$ 139	\$ 1,319	7.1	436	\$ 138	\$ 1,198	6.0	436	\$ 71	\$ 1,055	4.4	477	\$ 65	\$ 961	4.1	477	\$ -	\$ 933	3.50	538	\$ -	\$ 911	2.70	538	\$ -	9	\$ 1,102																		
10	\$ 1,418	7.6	446	\$ 147	\$ 1,401	7.7	436	\$ 147	\$ 1,268	6.5	436	\$ 75	\$ 1,112	5.2	477	\$ 69	\$ 1,005	4.8	477	\$ -	\$ 983	4.20	538	\$ -	\$ 957	3.50	538	\$ -	10	\$ 1,163																		
11	\$ 1,505	8.5	177	\$ -	\$ 1,488	8.5	177	\$ -	\$ 1,343	6.9	436	\$ 80	\$ 1,173	5.9	477	\$ 73	\$ 1,050	5.4	477	\$ -	\$ 1,035	4.90	538	\$ -	\$ 1,005	4.20	538	\$ -	11	\$ 1,228																		
12	\$ 1,698	8.9	177	\$ 66	\$ 1,681	8.9	177	\$ 66	\$ 1,422	7.3	436	\$ 84	\$ 1,236	6.5	477	\$ 77	\$ 1,097	5.9	477	\$ -	\$ 1,090	5.50	538	\$ -	\$ 1,055	4.90	538	\$ -	12	\$ 1,326																		
13	\$ 1,802	9.3	177	\$ 70	\$ 1,785	9.3	177	\$ 70	\$ 1,505	7.7	436	\$ 89	\$ 1,304	7.0	477	\$ 81	\$ 1,146	6.3	477	\$ -	\$ 1,148	6.00	538	\$ -	\$ 1,108	5.50	538	\$ -	13	\$ 1,400																		
14	\$ 1,912	9.7	177	\$ 74	\$ 1,896	9.7	177	\$ 74	\$ 1,594	8.5	177	\$ -	\$ 1,375	7.4	477	\$ 85	\$ 1,198	6.7	477	\$ -	\$ 1,209	6.40	538	\$ -	\$ 1,164	6.00	538	\$ -	14	\$ 1,478																		
15	\$ 2,030	10.1	177	\$ 79	\$ 2,014	10.1	177	\$ 79	\$ 1,688	8.9	177	\$ -	\$ 1,450	7.7	477	\$ 90	\$ 1,252	7.1	477	\$ -	\$ 1,273	6.80	538	\$ -	\$ 1,222	6.40	538	\$ -	15	\$ 1,561																		
16	\$ 2,154	10.5	177	\$ 84	\$ 2,140	10.5	177	\$ 83	\$ 1,787	9.3	177	\$ -	\$ 1,529	8.5	177	\$ -	\$ 1,308	7.4	477	\$ -	\$ 1,341	7.20	538	\$ -	\$ 1,283	6.80	538	\$ -	16	\$ 1,649																		
17	\$ 2,286	10.8	177	\$ 89	\$ 2,273	10.9	177	\$ 89	\$ 1,892	9.6	177	\$ -	\$ 1,712	8.8	177	\$ -	\$ 1,367	7.7	477	\$ -	\$ 1,412	7.50	538	\$ -	\$ 1,348	7.20	538	\$ -	17	\$ 1,756																		
18	\$ 2,427	11.7	93	\$ 94	\$ 2,414	11.8	92	\$ 94	\$ 2,003	10.0	177	\$ -	\$ 1,805	9.2	177	\$ -	\$ 1,429	8.5	177	\$ -	\$ 1,487	7.75	538	\$ -	\$ 1,415	7.50	538	\$ -	18	\$ 1,854																		
19	\$ 2,676	12.1	93	\$ -	\$ 2,664	12.2	92	\$ -	\$ 2,121	10.4	177	\$ -	\$ 1,904	9.5	177	\$ -	\$ 1,493	8.8	177	\$ -	\$ 1,566	8.3	215	\$ -	\$ 1,486	7.75	538	\$ -	19	\$ 1,987																		
20	\$ 2,840	12.5	93	\$ -	\$ 2,830	12.6	92	\$ -	\$ 2,246	10.8	177	\$ -	\$ 2,007	9.9	177	\$ -	\$ 1,560	9.1	177	\$ -	\$ 1,649	8.5	215	\$ -	\$ 1,560	8.3	215	\$ -	20	\$ 2,099																		
21	\$ 3,014	12.9	93	\$ -	\$ 3,006	13.0	92	\$ -	\$ 2,378	11.7	94	\$ -	\$ 2,117	10.2	177	\$ -	\$ 1,630	9.4	177	\$ -	\$ 1,736	8.8	215	\$ -	\$ 1,638	8.5	215	\$ -	21	\$ 2,217																		
22	\$ 3,199	13.3	93	\$ -	\$ 3,193	13.4	92	\$ -	\$ 2,518	12.0	94	\$ -	\$ 2,232	10.5	177	\$ -	\$ 1,703	9.7	177	\$ -	\$ 1,828	9.0	215	\$ -	\$ 1,720	8.8	215	\$ -	22	\$ 2,342																		
23	\$ 3,395	13.7	93	\$ -	\$ 3,392	13.8	92	\$ -	\$ 2,666	12.4	94	\$ -	\$ 2,354	11.4	99	\$ -	\$ 1,780	10.0	177	\$ -	\$ 1,926	9.3	215	\$ -	\$ 1,807	9.0	215	\$ -	23	\$ 2,474																		
24	\$ 3,603	14.1	93	\$ -	\$ 3,603	14.2	92	\$ -	\$ 2,823	12.8	94	\$ -	\$ 2,482	11.7	99	\$ -	\$ 1,860	10.3	177	\$ -	\$ 2,028	9.5	215	\$ -	\$ 1,897	9.3	215	\$ -	24	\$ 2,614																		
25	\$ 3,824	14.5	93	\$ -	\$ 3,827	14.6	92	\$ -	\$ 2,989	13.2	94	\$ -	\$ 2,617	12.1	99	\$ -	\$ 1,944	10.6	177	\$ -	\$ 2,135	9.8	215	\$ -	\$ 1,992	9.5	215	\$ -	25	\$ 2,761																		
26									\$ 3,165	13.6	94	\$ -	\$ 2,760	12.4	99	\$ -	\$ 2,031	10.9	93	\$ -	\$ 2,249	10.3	139	\$ -	\$ 2,092	9.8	215	\$ -	26	\$ 2,459																		
27									\$ 3,352	13.9	94	\$ -	\$ 2,910	12.7	99	\$ -	\$ 2,123	11.7	93	\$ -	\$ 2,368	10.5	139	\$ -	\$ 2,197	10.3	139	\$ -	27	\$ 2,590																		
28									\$ 3,549	14.3	94	\$ -	\$ 3,069	13.1	99	\$ -	\$ 2,218	12.0	93	\$ -	\$ 2,494	10.8	139	\$ -	\$ 2,307	10.5	139	\$ -	28	\$ 2,727																		
29													\$ 3,236	13.4	99	\$ -	\$ 2,318	12.3	93	\$ -	\$ 2,626	11.0	139	\$ -	\$ 2,422	10.8	139	\$ -	29	\$ 2,651																		
30									\$ 3,412	13.8	99	\$ -	\$ 3,412	13.8	99	\$ -	\$ 2,422	12.6	93	\$ -	\$ 2,766	11.3	139	\$ -	\$ 2,544	11.0	139	\$ -	30	\$ 2,786																		
31													\$ 2,531	12.9	93	\$ -	\$ 2,912	11.5	139	\$ -	\$ 3,067	11.8	139	\$ -	\$ 2,671	11.3	139	\$ -	31	\$ 2,705																		
32													\$ 2,645	13.2	93	\$ -	\$ 3,067	11.8	139	\$ -	\$ 3,067	11.8	139	\$ -	\$ 2,805	11.5	139	\$ -	32	\$ 2,839																		
33													\$ 2,764	13.5	93	\$ -	\$ 3,230	12.3	97	\$ -	\$ 3,230	12.3	97	\$ -	\$ 2,945	11.8	139	\$ -	33	\$ 2,980																		
34													\$ 2,888	13.8	93	\$ -	\$ 3,401	12.5	97	\$ -	\$ 3,401	12.5	97	\$ -	\$ 3,093	12.3	97	\$ -	34	\$ 3,127																		
35													\$ 3,018	14.1	0	\$ -	\$ 3,582	12.8	97	\$ -	\$ 3,582	12.8	97	\$ -	\$ 3,248	12.5	97	\$ -	35	\$ 4,924																		
36																	\$ 3,772	13.0	97	\$ -	\$ 3,772	13.0	97	\$ -	\$ 3,410	12.8	97	\$ -	36	\$ 3,591																		
37																	\$ 3,972	13.3	97	\$ -	\$ 3,972	13.3	97	\$ -	\$ 3,581	13.0	97	\$ -	37	\$ 3,777																		
38																	\$ 4,183	13.5	97	\$ -	\$ 4,183	13.5	97	\$ -	\$ 3,760	13.3	97	\$ -	38	\$ 3,972																		
39																	\$ 4,405	13.8	97	\$ -	\$ 4,405	13.8	97	\$ -	\$ 3,949	13.5	97	\$ -	39	\$ 4,177																		
40																	\$ 4,639	14.3	97	\$ -	\$ 4,639	14.3	97	\$ -	\$ 4,146	13.8	97	\$ -	40	\$ 4,393																		

**Note:**

- Varying return rates were used to match the final stand value with actual corresponding production (which was based after all costs, but before taxes and appreciation).
- Above values are the general upper end payable/receivable for a similar age and quality stand where the land value is \$400/acre. Alternate land uses warrant higher land values. Lower values will occur where the market bares (example: large discounted packages).
- The above values represent land and timber combined. A land value of \$400/acre is included in all the above purchase values.
- Match your stand simultaneously to age, diameter, and trees/acre in the above chart before referencing the price.
- Individual values are also sensitive to: Soil types, location, timber quality, access, winter logging capabilities, distance to mills, supply and demand, seller's needs, buyer's motives, alternative investment rates, and investment savvy.
- "Future Costs" refers to those costs occurring in the future of the stand discounted to the purchase date.
- Supply, demand and the knowledge thereof ultimately determines price.
- Upon purchase, represented returns are dependent on timely and decisive management.
- "Dbh" = Diameter at 4.5 feet above the ground (diameter at breast height).
- 10) First Thinning.
- 11) Second Thinning.
- 12) Final Harvest for all planted stands and Third Thinning for Seed Tree and Shelterwood.
- 13) Fourth Thinning for Seed Tree and Shelterwood.
- 14) Above values based on 67 site index on 25 year base which translates to 90 site index over 50 year base. Lower fertility sites will produce less and higher fertile sites will produce greater returns.
- 15) All above returns before appreciation. Appreciation for timber is approximately 5% over a 30-year period.
- 16) Planting Treatments: "3-Pass" = shear, rake, plow, plant, and grass spray (2 fertilizations); "2-Pass" = shear, plow, plant and grass spray (2 fertilizations and release); "Subsoil" = Chemical, subsoil, plant, and grass spray (1 fertilization); "Chemical" = Chemical, plant, and grass spray (1 fertilization); "Burn" = burn, plant, and grass spray.
- 17) Natural Seeding Treatments: "Shelterwood" = burn and chemical; "Seed Tree" = burn and chemical.
- 18) "Rate" refers to annual compounding return. The rates are evenly prorated over the life of the stand to match the final harvest results to determine annual values, which produces prorated results. Actual returns will vary.
- 19) Intermediate treatments = after initial reforestation (fertilization and release sprays). Reforestation treatments generally occur the first and second year.
- 20) The "Burn" technique included cost for interplanting the second year due to average expected poor survival.
- 21) "NA" = Not Applicable; "Silviculture" is as to forestry as "row-crop" is to agronomy.
- 22) All above planting techniques include a grass spray following planting.
- 23) Planting Treatments: "3-Pass" = shear, rake, plow, plant, and grass spray (2 fertilizations); "2-Pass" = shear, plow, plant and grass spray (2 fertilizations and release); "Subsoil" = Chemical, subsoil, plant, and grass spray (1 fertilization); "Chemical" = Chemical, plant, and grass spray (1 fertilization); "Burn" = burn, plant, and grass spray.
- 24) Natural Seeding Treatments: "Shelterwood" = burn and chemical; "Seed Tree" = burn and chemical.