Rotation (years)	35
Annual 'Diameter' Growth Maintained after First Thinning (inches)	0.30
Annual Merchantable Height Growth in Feet after First Thinning (Merch. Ht.)	0.9
Acres	100
Seedlings per Acre (Arkansas Native 1st Generation)	681
Mortality between establishment and 1st Thinning (50% first planting)	30%
Mortality between thininnings (after 1st Thinning)	10%
Discount and Reinvestment Rate (alternative investment rate)	5.31%
Management Expenses	15%
After thinning dbh increase (inches; smaller trees removed)	0.50
Seedling Cost per Seedling (pickup, storage, & delivery)	\$ 0.041
Planting Cost per Seedling	\$ 0.090
Cumulative Reforestaton Cost	\$ (240)
Intermediate Treatment Investments	\$ -
Regular Thinning Target Basal Area	70
Seed Tree Thinning Target Basal Area	NA

## **Burn - Planting - Return Analysis**

35 **Rotation Length:** 100 Acres: Rate of Return: 5.8% \$ 100 **Net Present Value:** 

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Teddy Reynolds, BSF, RF, SR

Note: Primarily poor survival will result in less than 50% of the property being adequately stocked, requiring replanting the second year.

•							_		Harvest Volumes per Acre											
		Diameter & Height Growth						Growth	Per	Tree	Per Acre Ton		Numbers below do not include appreciation							
	Thinned			Dbh. Merch.		Logs	CF	Tons	CF	Tons		Harvest		Investment		ROR	NPV	NAV		
	Year	Age	Age Treatment 1	Trees	Trees	(inches)	Ht. (feet)	(16 feet)	Cr	10115	Cr	10115	Nate	Per Acre	Total	Per Acre	Total	Per Acre	Per Acre	Per Acre
35	2004	0	Land													\$ (400)	\$ (40,000)	\$ (400)	\$ (400)	\$ (2,446)
35	2004	C	Burn													\$ (35)	\$ (3,500)	\$ (35)	\$ (35)	\$ (214)
35	2004	C	Seedlings #1	681												\$ (28)	\$ (2,792)	\$ (28)	\$ (28)	\$ (171)
35	2004	C	Plant #1	681												\$ (61)	\$ (6,129)	\$ (61)	\$ (61)	
35	2004	C	Grass Spray #1	681												\$ (35)	\$ (3,500)	\$ (35)	\$ (35)	\$ (214)
34	2005	1	Seedlings #2	350												\$ (14.35)	\$ (1,435)	\$ (14)	\$ (14)	\$ (83)
34	2005	1	Planing (\$0.11/seedling) #2	350												\$ (31.50)	\$ (3,150)	\$ (30)	\$ (30)	\$ (183)
34	2005	1	Grass Spray #2	350												\$ (35.00)	\$ (3,500)	\$ (33)	\$ (33)	\$ (203)
33	2006	2	Seedling Survival	477	204															l
17	2022	18	Thinning #1	177	270	8.5	31	1.94	4.5	0.15	1,214	41	\$ 6	\$ 209	\$ 20,861			\$ 76	\$ 82	\$ 503
16	2023	19		177		8.8	32	1.99												i
15	2024	20		177		9.1														1
14	2025	21		177		9.4														
13	2026	22		177		9.7														ı
12	2027	23		177		10.0														
11	2028	24		177		10.3														i
10	2029	25		177		10.6														<u> </u>
9	2030	26		177		10.9														
8	2031		Thinning #2	93	76	11.7				0.51	1,134	38	\$ 20	\$ 650	\$ 64,967			\$ 143	\$ 161	\$ 983
/	2032	28		93		12.0														<b></b>
6	2033	29		93		12.3														<b></b>
5	2034	30		93		12.6														<b></b>
4	2035	31		93		12.9														<b></b>
3	2036	32		93		13.2 13.5														<del></del>
2	2037	33		93																<b></b>
1	2038	34	Final Harvest Seed Trees	93 93	84	13.8 14.1				0.88	0.476	73	\$ 42	r 2.640	\$ 261,816			¢ 260	\$ 428	\$ 2,618
0	2039		Land Sale	93	84	14.1	46	2.89	26.0	0.88	2,176	73	φ 4Z	\$ 2,618 \$ 400				\$ 368 \$ 56		\$ 2,618
U		35	ILANU Sale													. (2.12)				
	Note:											(without app				\$ (640)	\$ (64,006)	\$ 7	\$ 100	\$ 18
	1) Cost of land was included in the analysis and sold at the end without appreciation (\$400/acre)  Rate of Return - ROR (without appreciation*)									5.8%						¢ 31				

- 1) Cost of land was included in the analysis and sold at the end without appreciation (\$400/acre).
- 2) Analysis was after costs, without tax treatment, and with no appreciation or inflation added.
- 3) 15% management expense was removed for administrative costs.
- 4) Alternative investment rate was based on August 25, 2003 30-Year Treasury Bill rate of 5.31%.
- 5) ROR = Rate of Return
- 6) NPV = Net Prestent Value
- 7) NAR = Net Annual Value

Net Present Value - NPV (without appreciation\*)

\* Add 5% to include appreciation.

NAV without 2nd planting cost