# 2021

# Timber Supply, El Dorado, Arkansas





College of Forestry, Agriculture, and Natural Resources

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https://www.uamont.edu/academics/CFANR/index.html or by contacting the Arkansas Center for Forest Business: Dr. Matthew Pelkki , email: pelkki@uamont.edu or office phone: (870) 460-1949, The University of Arkansas at Monticello College of Forestry, Agriculture, and Natural Resources P.O. Box 3468 Monticello, AR 71656-3468.

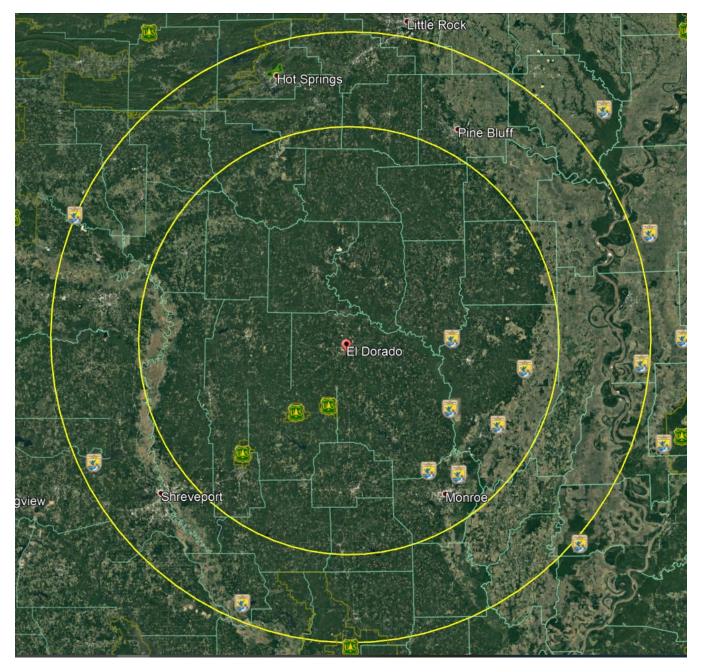


Figure 1. 70 and 100 mile radii from El Dorado, Arkansas.

#### Summary

The timber resources in the 70-miles surrounding El Dorado, Arkansas can support additional harvests greater than 5.6 million tons per year in pine saw logs and 2.9 million tons in pine pulpwood and top wood. Within 100 miles, these values increase to 7.8 and 3.4 million tons per year in saw logs and pulpwood/top wood, respectively. Annual hardwood removals could increase by 1.1 million tons in saw logs and 0.5 million tons in pulpwood and top wood, with these values increasing to 2.7 and 1.2 million tons, respectively, in a 100-mile radius.

This data comes from the most recent FIA data (2018 – LA, 2019 – AR, MS and TX) and does not reflect changes in forest cover, growth, or removals from that time to present. Changes in existing mill production and other forest disturbances could have a substantial effect on the values provided here, and those changes will likely increase over time.

#### **Highlights of Tables**

- There are 7.8 and 13.4 million acres of forest land within 70 and 100 miles, respectively, of El Dorado, Arkansas
- Pine is the dominant forest type in the region (50%) followed by bottomland hardwoods (22%) and upland hardwoods (17%)
- Naturally regenerated forests cover account for 63% of all forestland in the region, but 64% of pine covertypes are artificially regenerated. Only 9% of non-pine forests are artificially regenerated
- 92% of the forest land is privately owned and forest growing stock, growth, and removals are generally proportional to ownership
- Within 70 miles of El Dorado
  - 268 million tons of pine growing stock, 188 million tons of which is pine saw timber and 80 million tons of pulpwood and top wood
  - 187 million tons of hardwood growing stock, 108 million tons of which is saw timber and 79 million tons is pulpwood and top wood
  - Annual surplus in pine growth is 5.6 million tons in saw timber and 2.9 million tons in pulpwood
  - Annual surplus in hardwood growth is 1.1 million tons in saw timber and 0.5 million tons in pulpwood
- Within 100 miles of El Dorado
  - 409 million tons of pine growing stock, 288 million tons of which is pine saw timber and 121 million tons of pulpwood and top wood
  - 355 million tons of hardwood growing stock, 202 million tons of which is saw timber and 153 million tons is pulpwood and top wood
  - Annual surplus in pine growth is 7.8 million tons in saw timber and 3.4 million tons in pulpwood and top wood
  - Annual surplus in hardwood growth is 2.7 million tons in saw timber and 1.2 million tons in pulpwood and top wood

# Purpose/Objectives

The purpose of this analysis is to create a one-time snapshot of merchantable timber around El Dorado Arkansas. The data tables attached will provide information on the following:

- Forest area within 70 and 100 miles aerial radius of El Dorado, Arkansas by ownership and forest type group (Tables 1 and 2)
- Forest area within 100 miles aerial radius of El Dorado, Arkansas by forest type group and stand origin (Table 3)
- Forest area within 100 miles aerial radius of El Dorado, Arkansas by county/parish and forest type group (Table 4)
- Within 70 miles and 100 miles for major species groups and ownership groups:

#### Methods

The USDA Forest Service Forest Inventory and Analysis (FIA) database is the source of the data for these tables. Data comes from the Arkansas (2019), Louisiana (2018), Mississippi (2019), Oklahoma (2018) and east Texas (2019) inventories, which, at the time of this report are the most current available. The online software EVALIDATOR and DATIM processed the database queries for these reports. EVALIDATOR and DATIM can be accessed on the FIA National Program website (https://www.fia.fs.fed.us/tools-data/).

Some specifics to the database queries are important to note:

- The center of the analysis radii of 70 and 100 miles is 33.207630 degrees north latitude and -92.666267 degrees west longitude (center of El Dorado, Arkansas)
- The results show acre and tonnages based on forestland based on FIA definition (FIADEF)
- Ownership categories are either PUBLIC or PRIVATE
- Areas are in acres
- Tree biomass is reported in GREEN SHORT TONS

This report is an initial survey of forestland resources. The Arkansas Center for Forest Business upon request can provide more detailed analysis and information regarding the region.

Table 1. Forest acres by forest type group and ownership within a 70-mile radius of El Dorado, Arkansas in 2019.

Forest type group	Total	Public	Private
Total	7,798,523	426,029	7,372,493
Longleaf / slash pine group	0	0	0
Loblolly / shortleaf pine group	4,377,667	113,887	4,263,780
Other eastern softwoods group	5,559	0	5,559
Oak / pine group	760,208	29,920	730,287
Oak / hickory group	1,166,242	32,304	1,133,938
Oak / gum / cypress group	1,205,017	217,941	987,076
Elm / ash / cottonwood group	154,768	26,276	128,492
Other hardwoods group	9,228	0	9,228
Exotic hardwoods group	18,033	5,701	12,332
Nonstocked	101,799	0	101,799

Table 2. Forest acres by forest type group and ownership within a 100-mile radius of El Dorado, Arkansas in 2019.

Forest type group	Total	Public	Private
Total	13,443,415	1,107,426	12,335,989
Longleaf / slash pine group	3,798	3,798	0
Loblolly / shortleaf pine group	6,808,393	292,167	6,516,226
Other eastern softwoods group	7,210	0	7,210
Oak / pine group	1,255,747	66,048	1,189,699
Oak / hickory group	2,280,179	179,050	2,101,129
Oak / gum / cypress group	2,130,150	420,718	1,709,432
Elm / ash / cottonwood group	761,961	130,417	631,544
Other hardwoods group	18,423	0	18,423
Exotic hardwoods group	23,061	8,704	14,357
Nonstocked	154,494	6,524	147,969

Table 3. Forest acres by stand origin and forest cover type within 100-mile radius of El Dorado, Arkansas in 2019.

Forest type group	Total	Natural stands	Clear evidence of artificial regeneration	
Total	13,443,415	8,533,479	4,909,937	
Longleaf / slash pine group	3,798	3,798	0	
Loblolly / shortleaf pine group	6,808,393	2,483,898	4,324,496	
Other eastern softwoods group	7,210	1,650	5,559	
Oak / pine group	1,255,747	1,049,166	206,580	
Oak / hickory group	2,280,179	2,144,031	136,148	
Oak / gum / cypress group	2,130,150	1,969,607	160,544	
Elm / ash / cottonwood group	761,961	714,851	47,109	
Other hardwoods group	18,423	18,423	0	
Exotic hardwoods group	23,061	23,061	0	
Nonstocked	154,494	124,994	29,500	

Table 4. Forest area by county or parish and forest type group within 100-mile radius of El Dorado, Arkansas in 2019

			I	l			pe group ab					I
State	County	Total	-	LobSh	OthESw	OkP	OkH	OkGC	EAC	OtHw	ExHd	Nons
ALL	Total	13,443,415				1,255,747	279			18,423	23,061	154,494
AR	Arkansas	49,667		- )				- 1,577	18,739	0	0	
AR	Chicot	127,791	0	, .				, -	86,006	0	0	- ,
AR	Desha	89,502			-		- ,		45,614	0	0	7
AR	Jefferson	208,388		,		-,			28,989	0	0	- ,
AR	Lincoln	141,756	0	47,521	0			33,400	13,016	0	0	
AR	Ashley	416,452		/		, .		73,703	6,062	0	0	-,
AR	Bradley	367,484							0	0	0	, -
AR	Calhoun	355,726		,						0	0	- ,
AR	Clark	463,797		. ,		)			8,809	0	0	-
AR	Cleveland	330,416		,					11,835	0	0	
AR	Columbia	441,127		,.					4,576	0	0	
AR	Dallas	411,732		,						0	0	. ,
AR	Drew	420,390		. ,						1,525	0	
AR	Grant	391,544		.,		. ,			19,749	0	0	
AR	Hempstead	299,738				- 7				2,178	0	,
AR	Hot Spring	259,522		- ,					0	0	0	
AR	Howard	135,098		,		., .			7,616	0	0	
AR	Lafayette	210,182		- ,				18,185	15,559	0	0	
AR	Little River	103,458		- ,		- 7	28,644			0	0	
AR	Miller	194,064		- ,					22,774	0	0	,
AR	Nevada	329,380		. ,					0	0	0	.,
AR	Ouachita	393,475		- ,			83,822	46,196		0	0	
AR	Pike	293,894	0	170,502	0	- ,		6,062	3,031	6,062	0	
AR	Sevier	61,818	0	19,710					6,062	0	0	,
AR	Union	634,635		,	0	,	,		6,574	0	0	.,
AR	Garland	199,610		. ,				4,499	-	0	0	7
AR	Montgomery	62,534		,							0	
AR	Pulaski	31,239		- ,			- ,		11,268	0	0	
AR	Saline	163,132		, -					0	0	0	,
LA	East Carroll	59,071	0		-			20,556		0	3,003	3,067
LA	Franklin	91,936		.,				10,592	38,006	0	0	
LA	Madison	72,426	0	0			0	39,114	33,312	0	0	
LA	Morehouse	247,678		, -		.,	17,297	85,331	33,719	0	1,625	1,424
LA	Richland	75,187		,				39,848		0	0	
LA	Tensas	6,501	0					- ,	0	0	0	
LA	West Carroll	60,454		-,					12,143	0	0	
LA	Grant	5,064					- ,			0	0	
LA	La Salle	91,588		,.	0	. ,		-	6,391	0	0	
LA	Natchitoches	204,768		,						0	0	
LA	Bienville	464,249		,		- , .			6,124	2,729	0	-,.
LA	Bossier	368,496		,			62,410		3,177	0	0	
LA	Caddo	18		,						0	0	, , .
LA	Caldwell	298,748								0	0	4,938
LA	Claiborne	418,654									0	_
LA	De Soto	154,202		-							0	,, ,,
LA	Jackson	383,252		-						-	0	- ,
LA	Lincoln	233,699									0	
LA	Ouachita	241,602									3,062	
LA	Red River	165,002		. ,						1,531	0	
LA	Union	442,810									3,052	
LA	Webster	267,850								0	10,294	1,593
LA	Winn	517,449								0	0	0
MS	Bolivar	44,522								0	0	_
MS	Issaquena	51,903						6,160			0	.,
MS	Washington	45,192						-	17,874		0	.,
TX	Bowie	138,632	0	53,892	0	6,423	44,647	24,244	9,426	0	0	0
TX	Cass	228,298	0	107,188	0	20,098	59,937	37,449	1,602	0	2,024	0
TX	Harrison	100,207				6,919	14,632				0	0
TX	Marion	96,308	0	54,480	0	5,337	20,336	12,817	1,737	1,602	0	0

Table 5. Growing stock of merchantable bole biomass, saw log portion, and pulpwood/topwood portion in green tons by major species group and major ownership group within 70 miles of El Dorado, Arkansas in 2019.

# TOTAL MERCHANTABLE BOLE GROWING STOCK IN TONS

	Ownership group - Major					
Species group - MajorGroup	Total	Public	Private	Not available		
Total	465,621,637	33,431,057	432,190,579	0		
Pines	268,465,133	11,326,111	257,139,023	0		
Other softwoods	9,813,626	1,879,945	7,933,681	0		
Soft hardwoods	54,147,778	4,175,553	49,972,225	0		
Hard hardwoods	133,195,099	16,049,449	117,145,650	0		

# SAWLOG PORTION IN TONS

	Ownership group - Major					
Species group - MajorGroup	Total	Public	Private	Not available		
Total	304,297,203	24,920,753	279,376,450	0		
Pines	188,850,832	10,334,767	178,516,065	0		
Other softwoods	7,427,468	1,257,661	6,169,807	0		
Soft hardwoods	23,538,672	1,935,856	21,602,816	0		
Hard hardwoods	84,480,231	11,392,470	73,087,762	0		

		_		
Species group - MajorGroup	Total	Public	Private	Not available
Total	161,324,434	8,510,304	152,814,129	0
Pines	79,614,301	991,344	78,622,958	0
Other softwoods	2,386,158	622,284	1,763,874	0
Soft hardwoods	30,609,106	2,239,697	28,369,409	0
Hard hardwoods	48,714,868	4,656,979	44,057,888	0

Table 6. Annual net growth of merchantable bole biomass, saw log portion, and pulpwood/topwood portion in green tons by major species group and major ownership group within 70 miles of El Dorado, Arkansas in 2019.

# MERCHANTABLE BOLE BIOMASS ANNUAL NET GROWTH IN TONS

	Ownership group - Major				
Species group - MajorGroup	Total	Public	Private	Not available	
Total	26,312,231	629,093	25,670,865	12,274	
Pines	21,012,355	359,914	20,637,846	14,595	
Other softwoods	231,624	74,299	157,325	0	
Soft hardwoods	1,541,004	36,520	1,509,360	-4,876	
Hard hardwoods	3,527,247	158,359	3,366,333	2,555	

# SAWLOG PORTION IN TONS

	Ownership group - Major				
Species group - MajorGroup	Total	Public	Private	Not available	
Total	17,834,309	539,927	17,283,915	10,466	
Pines	14,754,470	329,401	14,414,363	10,706	
Other softwoods	203,534	64,225	139,309	0	
Soft hardwoods	658,692	30,284	631,833	-3,425	
Hard hardwoods	2,217,613	116,017	2,098,410	3,186	

	Ownership group - Major				
Species group - MajorGroup	Total	Public	Private	Not available	
Total	8,477,922	89,166	8,386,949	1,807	
Pines	6,257,885	30,513	6,223,483	3,889	
Other softwoods	28,091	10,075	18,016	0	
Soft hardwoods	882,312	6,236	877,527	-1,451	
Hard hardwoods	1,309,634	42,342	1,267,923	-631	

Table 7. Annual removals of merchantable bole biomass, saw log portion, and pulpwood/topwood portion in green tons by major species group and major ownership group within 70 miles of El Dorado, Arkansas in 2019.

# MERCHANTABLE BOLE BIOMASS REMOVALS IN TONS

	Ownership group - Major					
Species group - MajorGroup	Total	Public	Private	Not available		
Total	15,891,300	328,305	15,416,399	146,596		
Pines	12,492,081	242,347	12,170,519	79,215		
Other softwoods	2,083	0	2,083	0		
Soft hardwoods	876,498	5,465	849,572	21,460		
Hard hardwoods	2,520,638	80,493	2,394,225	45,920		

# **SAWLOG PORTION IN TONS**

	Ownership group - Major					
Species group - MajorGroup	Total	Public	Private	Not available		
Total	10,926,523	272,464	10,554,392	99,667		
Pines	9,181,609	217,352	8,908,303	55,953		
Other softwoods	0	0	0	0		
Soft hardwoods	230,676	0	219,740	10,937		
Hard hardwoods	1,514,238	55,111	1,426,349	32,777		

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	4,964,777	55,841	4,862,007	46,929
Pines	3,310,472	24,994	3,262,216	23,262
Other softwoods	2,083	0	2,083	0
Soft hardwoods	645,821	5,465	629,832	10,524
Hard hardwoods	1,006,400	25,381	967,876	13,144

Table 8. Annual surplus of merchantable bole biomass, saw log portion, and pulpwood/topwood portion in green tons by major species group and major ownership group within 70 miles of El Dorado, Arkansas in 2019.

# MERCHANTABLE BOLE BIOMASS ANNUAL NET SURPLUS IN TONS

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	10,420,931	300,788	10,254,466	-134,322
Pines	8,520,274	117,567	8,467,327	-64,620
Other softwoods	229,541	74,299	155,242	0
Soft hardwoods	664,507	31,055	659,788	-26,336
Hard hardwoods	1,006,609	77,866	972,108	-43,366

# **SAWLOG PORTION IN TONS**

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	6,907,785	267,463	6,729,523	-89,200
Pines	5,572,861	112,049	5,506,060	-45,248
Other softwoods	203,534	64,225	139,309	0
Soft hardwoods	428,015	30,284	412,093	-14,362
Hard hardwoods	703,375	60,906	672,061	-29,591

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	3,513,146	33,325	3,524,943	-45,122
Pines	2,947,413	5,518	2,961,267	-19,373
Other softwoods	26,008	10,075	15,933	0
Soft hardwoods	236,491	771	247,695	-11,975
Hard hardwoods	303,234	16,961	300,048	-13,774

Table 9. Growing stock of merchantable bole biomass, saw log portion, and pulpwood/topwood portion in green tons by major species group and major ownership group within 100 miles of El Dorado, Arkansas in 2019.

# TOTAL MERCHANTABLE BOLE GROWING STOCK IN TONS

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	782,969,343	90,760,427	692,208,916	0
Pines	408,513,966	28,126,608	380,387,357	0
Other softwoods	19,374,911	6,777,941	12,596,970	0
Soft hardwoods	105,976,701	14,868,527	91,108,174	0
Hard hardwoods	249,103,766	40,987,351	208,116,415	0

#### SAWLOG PORTION IN TONS

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	504,824,314	66,463,902	438,360,412	0
Pines	287,891,786	24,843,586	263,048,200	0
Other softwoods	15,013,580	5,266,023	9,747,556	0
Soft hardwoods	46,314,701	7,776,050	38,538,651	0
Hard hardwoods	155,604,247	28,578,243	127,026,004	0

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	278,145,029	24,296,525	253,848,504	0
Pines	120,622,180	3,283,022	117,339,157	0
Other softwoods	4,361,331	1,511,918	2,849,414	0
Soft hardwoods	59,662,000	7,092,477	52,569,523	0
Hard hardwoods	93,499,519	12,409,108	81,090,411	0

Table 10. Annual net growth of merchantable bole biomass, saw log portion, and pulpwood/topwood portion in green tons by major species group and major ownership group within 100 miles of El Dorado, Arkansas in 2019.

# MERCHANTABLE BOLE BIOMASS ANNUAL NET GROWTH IN TONS

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	42,062,400	1,760,319	40,245,893	56,187
Pines	31,858,313	765,217	31,067,579	25,517
Other softwoods	462,236	164,966	297,269	0
Soft hardwoods	3,147,109	244,396	2,895,183	7,530
Hard hardwoods	6,594,743	585,741	5,985,862	23,140

#### SAWLOG PORTION IN TONS

	Ownership group - Major				
Species group - MajorGroup	Total	Public	Private	Not available	
Total	28,406,380	1,496,960	26,889,229	20,191	
Pines	22,487,896	708,469	21,763,312	16,115	
Other softwoods	393,045	152,219	240,826	0	
Soft hardwoods	1,451,214	168,393	1,285,000	-2,178	
Hard hardwoods	4,074,225	467,879	3,600,091	6,254	

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	13,656,020	263,360	13,356,664	35,996
Pines	9,370,417	56,748	9,304,267	9,402
Other softwoods	69,190	12,747	56,443	0
Soft hardwoods	1,695,894	76,003	1,610,183	9,709
Hard hardwoods	2,520,518	117,861	2,385,771	16,886

Table 11. Annual removals of merchantable bole biomass, saw log portion, and pulpwood/topwood portion in green tons by major species group and major ownership group within 100 miles of El Dorado, Arkansas in 2019.

# MERCHANTABLE BOLE BIOMASS REMOVALS IN TONS

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	26,522,698	629,822	25,402,420	490,457
Pines	20,622,213	427,990	19,973,171	221,052
Other softwoods	8,479	910	7,569	0
Soft hardwoods	1,751,771	72,846	1,576,282	102,642
Hard hardwoods	4,140,236	128,075	3,845,398	166,763

#### SAWLOG PORTION IN TONS

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	17,499,844	449,828	16,774,682	275,335
Pines	14,659,343	317,835	14,169,428	172,080
Other softwoods	3,539	0	3,539	0
Soft hardwoods	486,271	41,008	421,897	23,366
Hard hardwoods	2,350,691	90,985	2,179,818	79,888

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	9,022,855	179,994	8,627,738	215,122
Pines	5,962,869	110,155	5,803,743	48,971
Other softwoods	4,940	910	4,030	0
Soft hardwoods	1,265,500	31,839	1,154,385	79,275
Hard hardwoods	1,789,545	37,090	1,665,580	86,875

Table 12. Annual surplus of merchantable bole biomass, saw log portion, and pulpwood/topwood portion in green tons by major species group and major ownership group within 100 miles of El Dorado, Arkansas in 2019.

# MERCHANTABLE BOLE BIOMASS ANNUAL NET SURPLUS IN TONS

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	15,539,702	1,130,498	14,843,473	-434,269
Pines	11,236,100	337,226	11,094,409	-195,535
Other softwoods	453,757	164,057	289,700	0
Soft hardwoods	1,395,338	171,549	1,318,900	-95,112
Hard hardwoods	2,454,507	457,666	2,140,464	-143,623

#### SAWLOG PORTION IN TONS

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	10,906,536	1,047,132	10,114,548	-255,144
Pines	7,828,552	390,634	7,593,884	-155,966
Other softwoods	389,506	152,219	237,287	0
Soft hardwoods	964,943	127,385	863,103	-25,545
Hard hardwoods	1,723,534	376,894	1,420,273	-73,633

	Ownership group - Major			
Species group - MajorGroup	Total	Public	Private	Not available
Total	4,633,165	83,365	4,728,926	-179,126
Pines	3,407,548	-53,407	3,500,524	-39,569
Other softwoods	64,250	11,837	52,413	0
Soft hardwoods	430,395	44,164	455,798	-69,567
Hard hardwoods	730,972	80,771	720,191	-69,990