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The Timber Industries of Kentucky, 1986

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Abstract

Almost 138 million cubic feet of industrial roundwood were produced from Kentucky's timberlands in 1986. This was an increase from 1974 when production had reached 98 million cubic feet. Most of the production was hardwood sawlogs—almost 775 million board feet. White oak and yellow-poplar were the primary species used for these sawlogs. Production of pulpwood and veneer logs increased slightly, but the production of other products declined. Most mill residue generated by manufacturing primary forest products was used for pulp, fuel, and agricultural uses. Only 13 percent of the 68 million cubic feet generated as mill residue were unused.

Introduction

The forest resources of Kentucky were last inventoried more than 12 years ago. Since then, many changes have occurred that affect the resource base. What impact have these changes had upon forest products removed from Kentucky timberlands? The most recent canvass of Kentucky's resource use, which the U.S. Department of Agriculture, Forest Service conducted for 1986, provides the answer.

The Forest and Rangeland Renewable Resources Planning Act of 1974 and other, more current, legislation authorized the USDA Forest Service to conduct periodic forest resource inventories of all states. These inventories provide a wealth of information about timber and other forest-related resources of the Nation. All 14 states now included within the northeastern region delineated by the

Forest Service have been inventoried at least three times.

First inventoried by the Central States Forest Experiment Station in 1949 (U.S. Department of Agriculture 1952), the forest resources of Kentucky were re-inventoried in 1963 (Gansner 1968). By 1975, the year of Kentucky's third forest inventory (Kingsley and Powell 1978), Kentucky had been added to the region served by the Northeastern Forest Experiment Station. The most recent inventory (Alerich 1990) is the fourth time the forest resources of Kentucky were inventoried, and like the other re-inventories, included a timber industry survey to determine the output of timber products.

The statistics published in this report result from a canvass of all primary wood manufacturers that used wood from Kentucky and were operating during 1986. Data from pulp mills were gathered from an annual survey of all northeastern pulpwood producers. The mills were identified from a list of all known, primary wood manufacturing firms located in and outside the state that possibly might have used industrial roundwood from Kentucky during 1986. Assistance in compiling the list of manufacturers was provided by the Kentucky Division of Forestry.

Primary wood manufacturers in Kentucky and out-of-state manufacturers were first contacted through a questionnaire mailed by the Northeastern Station. Any nonresponding manufacturers were sent an additional questionnaire or were contacted by Kentucky forestry personnel. The mills were asked to estimate the volume of roundwood received during the year, by species, product, and source, and to estimate the volume of residues generated during manufacturing.

The economic importance of Kentucky's forest products industry has been analyzed previously (Schallau et al. 1986). This report details the 1986 situation of forest-products use in Kentucky and highlights the changes occurring since the similar study conducted in 1974 (Bones and Lohr 1977).

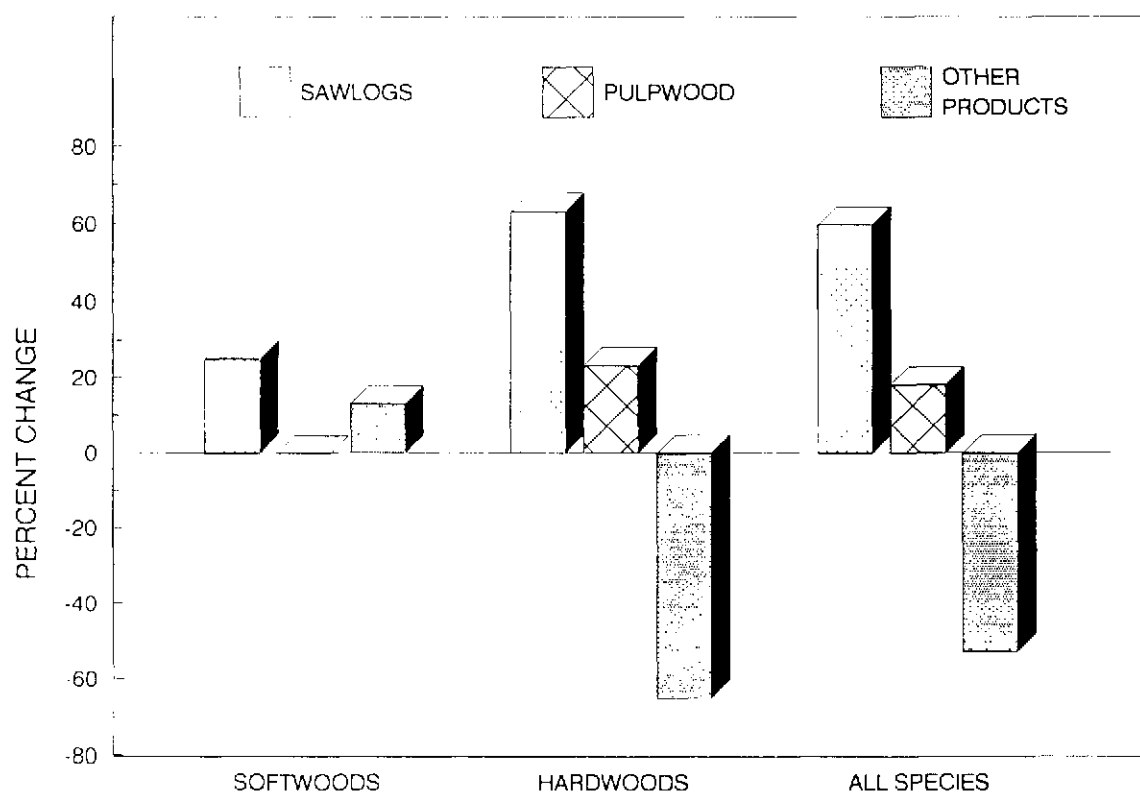
Sawlogs, Pulpwood Up – Other Products Down

Since the last industry canvass, timber harvesters had begun to remove more sawlogs from Kentucky's timberlands. Sawlog production was 488.8 million bf (72.4 million ft³) in 1974. It rose to 823.5 million bf (116.6 million ft³) in 1986. Having increased 61 percent, sawlog production represented an upswing in the state's timber production trends since sawlog production had changed only imperceptibly between 1969, the date of the first industry canvass, and 1974. Total pulpwood, also, had increased, although not as much, and most of the increase was in hardwood pulpwood, which rose from 9.2 million ft³ in 1974

to 11.4 million ft³ in 1986 – a 24 percent increase.

Other industrial products, which exclude sawlogs and pulpwood, were manufactured less in 1986. Having previously declined between 1969 and 1974, other products continued to decline into 1986. The production of logs and bolts used for these products reached a low of 2.9 million ft³, a 55 percent decline from 1974. Only other products harvested from softwood species increased, though minimally. The bulk of the increase was shortleaf and Virginia pine manufactured into fence posts.

Percent change of major forest products



The Main Product is Hardwood Sawlogs

Many products were manufactured by Kentucky's forest products industry. The diversity ranged from the more traditional sawlogs, pulpwood, and veneer to a wide range of other primary products such as cooperage logs, mine timbers, dimension and handle bolts, fence posts, poles, cabin logs, and logs or bolts made into charcoal and golf blanks. All are primary products from Kentucky's timberlands or used by Kentucky's mills.

Softwoods harvested for sawlogs accounted for slightly more than for other products: 7.3 million ft³ compared to 4.6 million ft³.

Harvesting softwoods, though, contributed little to Kentucky's total roundwood production. Only 9 percent of the harvest came from softwoods.

By far the most harvested product was hardwood sawlogs, which formed the nucleus of the state's forest products industry. Of the 137 million ft³ of roundwood removed from Kentucky timberlands in 1986, 125 million ft³ were hardwoods. That is 91 percent of all roundwood harvested. Slightly more than 109 million ft³—88 percent of the hardwood total—was harvested for sawlogs.

Production of roundwood, by major industrial products
(million ft³)

Product	Softwoods		Hardwoods		All species	
	1974	1986	1974	1986	1974	1986
Sawlogs	5.8	7.3	66.6	109.3	72.4	116.6
Pulpwood	2.1	2.1	9.2	11.4	11.3	13.5
Veneer logs	—	(a)	0.9	1.9	0.9	1.9
Cooperage logs	—	—	1.7	0.5	1.7	0.5
Mine timbers	0.4	—	4.9	1.3	5.3	1.3
Other products ^b	1.8	2.5	4.7	0.4	6.5	2.9
All products	10.1	11.9	88.0	124.8	98.1	136.7

^a Less than 50 thousand ft³

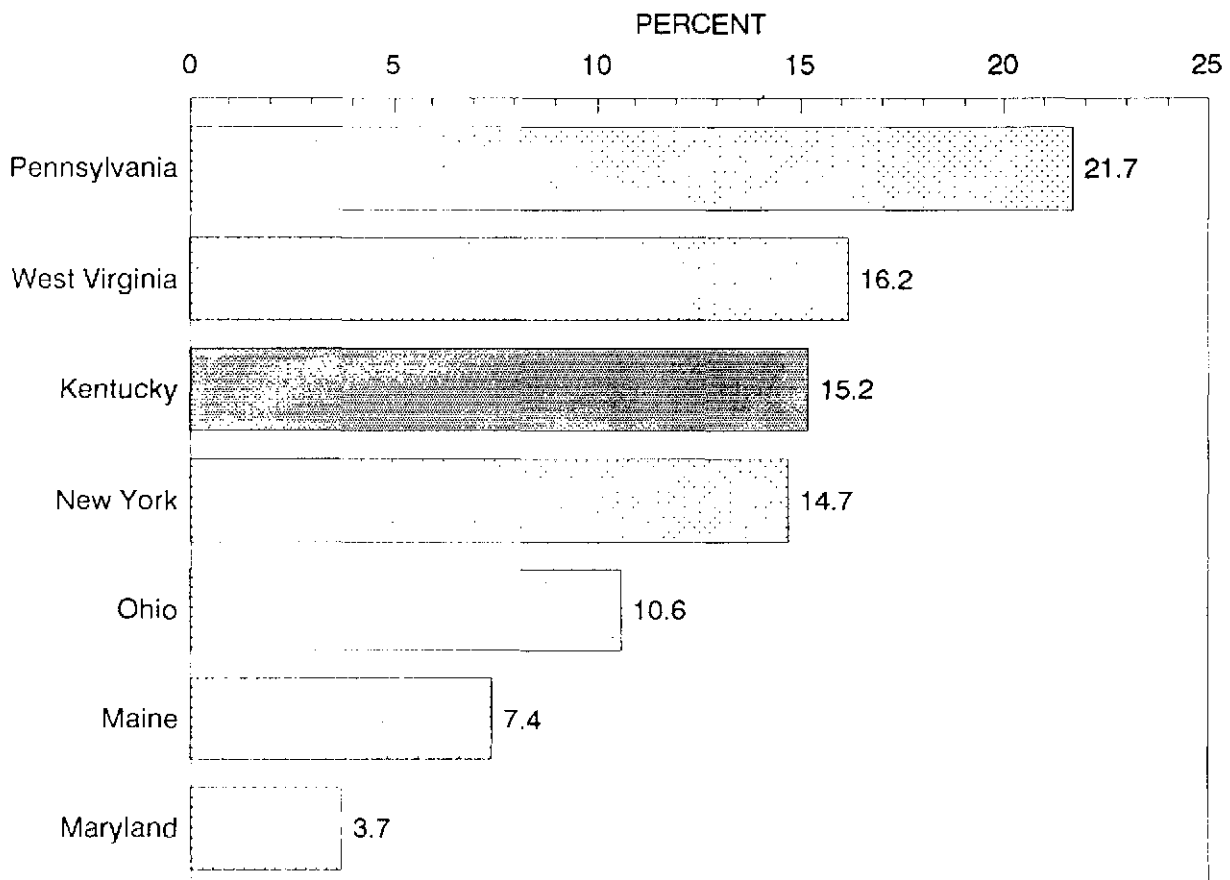
^b Includes dimension and handle bolts, large posts, fence posts, cabin logs, charcoal, and golf blanks

Hardwood Sawlog Production Third in the Northeast

Kentucky is located geographically at the southern end of the northern hardwood forest type that extends through the Middle Atlantic states and into New England. In the southern range oak and hickory predominate; in the northern extremes of this major forest type, maple, beech, and birch predominate. The states in this region produce some of the finest hardwood timber in the entire United States.

Kentucky ranks low in production when all forest products are considered. Yet it ranks third in total hardwood sawlog production of the Northeast. It long has been a supplier of roundwood manufactured into hardwood lumber products. Kentucky timber harvesters contributed approximately 15 percent of the hardwood sawlog harvest from Northeastern timberlands in 1986. This put Kentucky in the upper echelon of hardwood sawlog-producing states.

Proportion of northeastern hardwood sawlog production for selected states

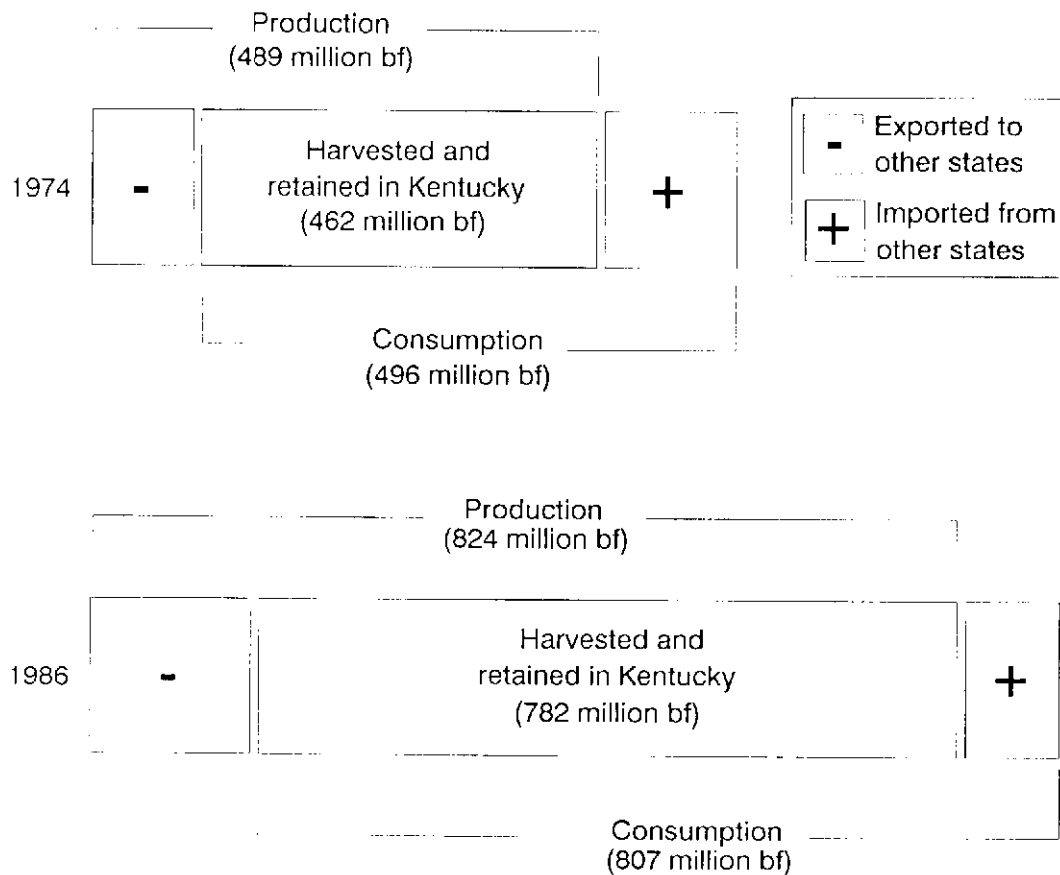


Once a Net Importer, Now a Net Exporter

Both production and consumption of sawlogs increased between 1974 and 1986, but the source of the wood shifted. In 1974, almost 35 million bf were imported. In that year, Kentucky was a net importer, with wood coming primarily from Indiana and Tennessee. Even though consumption al-

most doubled in 1986, imports dropped. Wood still came from Tennessee, but little came from other states. Almost 42 million bf were exported in 1986 (almost double what was imported), most to Tennessee, Indiana, and Ohio.

Change in sawlog production, by destination of shipment



Little Change Where Sawlogs were Harvested

Kentucky's forests are comprised predominantly of the oak-hickory forest type, except for a finger of oak-pine that extends from Tennessee through the Southern Cumberland unit. Consequently, most of the softwood sawlogs harvested in the state came from this unit. Of the 49 million bf of softwood sawlogs harvested in 1986, almost 29 million bf were harvested from timberland in the Southern Cumberland unit — 59 percent of all softwood sawlogs harvested. In some units, softwood sawlogs were harvested less since 1974, but only by small amounts. In general, there was little change in volume or location of harvest.

Unlike softwoods, more hardwood sawlogs were harvested since 1974. The geographic source of the logs, though, changed only in the Eastern and Western units. Hardwood sawlog production increased in the Eastern unit, but did not keep pace with state-wide increases. The unit's contribution to the total hardwood sawlog harvest dropped from 10 to 6 percent. Conversely, harvesting increased at a greater rate in the western side of the state. The proportion of hardwood sawlogs harvested in the Western unit jumped from 7 to 12 percent. Still, most harvesting of hardwood sawlogs occurred in the Pennyroyal and Western Coalfield units, where the highest hardwood volumes per acre are found.

Sawlog production, by geographic unit
(million bf)

Geographic unit	Softwoods		Hardwoods		All species	
	1974	1986	1974	1986	1974	1986
Eastern	1.8	1.2	44.3	46.4	46.1	47.6
Northern Cumberland	4.9	6.1	71.6	111.4	76.5	117.5
Southern Cumberland	17.5	28.7	61.1	97.2	78.6	125.9
Bluegrass	1.5	5.9	18.4	40.8	19.9	46.7
Pennyroyal	6.3	4.1	111.1	199.7	117.4	203.8
Western Coalfield	0.1	2.6	120.0	183.0	120.1	185.7
Western	0.2	0.3	30.0	96.0	30.2	96.3
All units	32.3	49.0	456.5	774.5	488.8	823.5

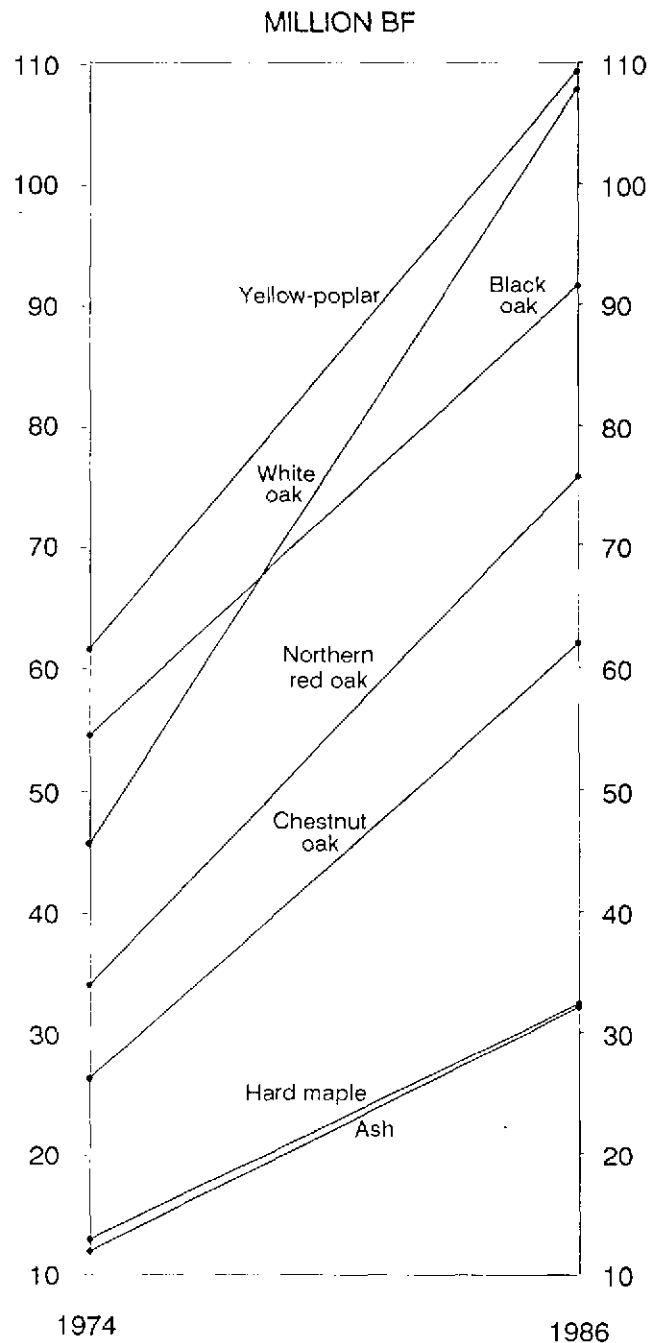
More Oak and Yellow-poplar Sawlogs Used

Between 1974 and 1986, manufacturers used more sawlogs from every major species. By far the largest of these gains occurred in oak and yellow-poplar. The manufacturers who used sawlogs depended most on yellow-poplar sawlogs during 1974. It remained the leading species in 1986, but only by a slim margin.

White oak use by manufacturers increased most during 1986, more than double the use in 1974. White oak was used almost as much as yellow-poplar in 1986. Other oaks—black oak, northern red oak, and chestnut oak—also showed substantial increases. Like white oak, the use of chestnut oak and northern red oak both more than doubled. Use of black oak sawlogs increased by 67 percent. Considered as a group, oak was the most important sawlog species.

The volume increase in sawlogs harvested occurred when the housing industry was not particularly strong. Many homeowners, in lieu of purchasing new homes during economic instability, chose to refurbish existing homes. One means of increasing home value is through hardwood flooring, moldings, and the like. Thus, hardwood flooring markets and increased foreign exports primarily were responsible for the volume increases.

Change in sawlog production, by selected species

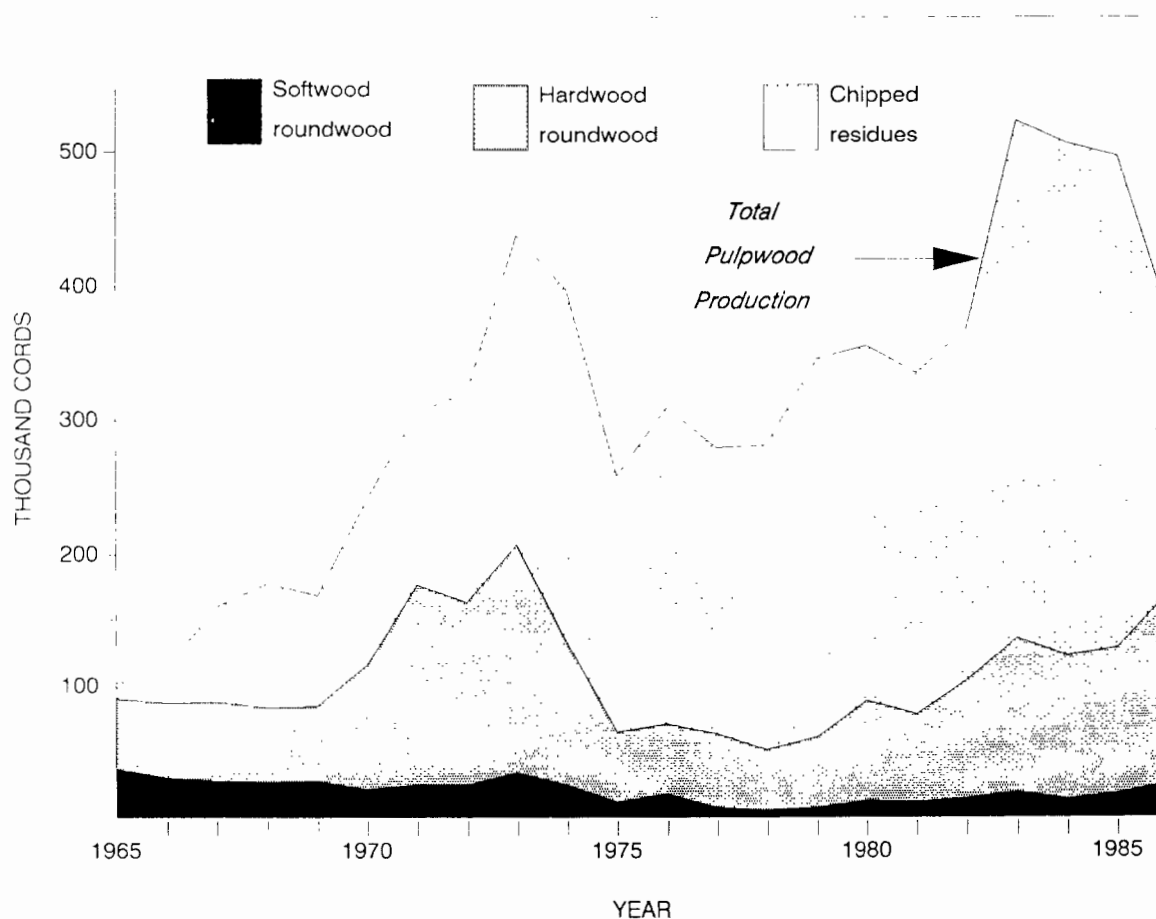


Most Woodpulp Manufactured from Chipped Residue

Over the years, the volume of chipped residue used for pulp increased, and in 1986 was the major source of pulpwood. When making pulpwood in 1965, processors used less chipped residue than roundwood, which included whole-tree chips. Except for some increases in the 1970's, the volume of roundwood used for pulp had remained essentially constant. Pulpwood

production, on the other hand, had almost tripled. Pulp processors had depended on chipped residues to handle increases in production, aided by increased sawlog production making residue more available. Although the use of chipped residues dropped between 1985 and 1986, their use represented a long-term trend that had continued since the early 1960's.

Annual pulpwood production, by source of material



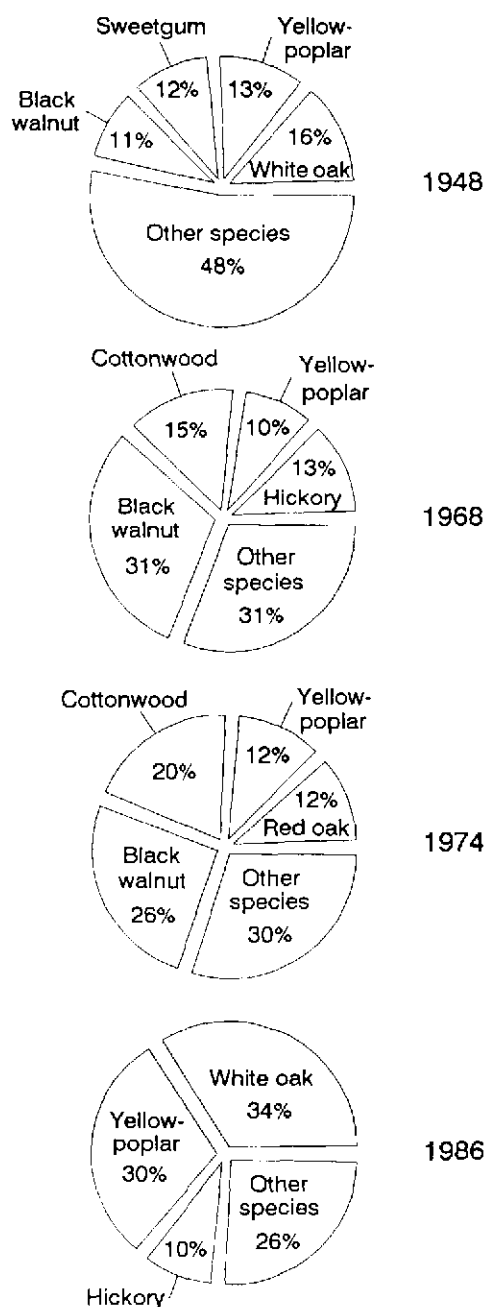
The Species Used for Veneer Have Changed

Kentucky, never a major producer of veneer logs and bolts, has produced some commercial and face veneer. This veneer includes plywood and facing for furniture supplied to the secondary furniture industry located in the Southeast.

Over the years, the species used for veneer have changed. Consumer preference has had an effect, but the availability of certain species primarily is responsible for changing species distribution. Approximately 40 years ago, during 1948, almost half of the volume of timber harvested for veneer logs and bolts was from a variety of species. But three species – yellow-poplar, black walnut, and oak – were used in significant amounts. These species continued to be used for several decades.

Between 1974 and 1986 black walnut dropped out, probably due to decreased supplies of high-quality logs and stiff competition with foreign markets. Cottonwood grew in importance during the sixties and seventies, but this species, too, became less used by 1986. Only oak and yellow-poplar showed long-term desirability coupled with availability. By 1986, white oak and yellow-poplar accounted for 64 percent of all species harvested for veneer logs and bolts.

Percent change in species distribution of veneer logs and bolts, 1948-1986



Less Unused Mill Residue — More Used for Fuel, Agriculture

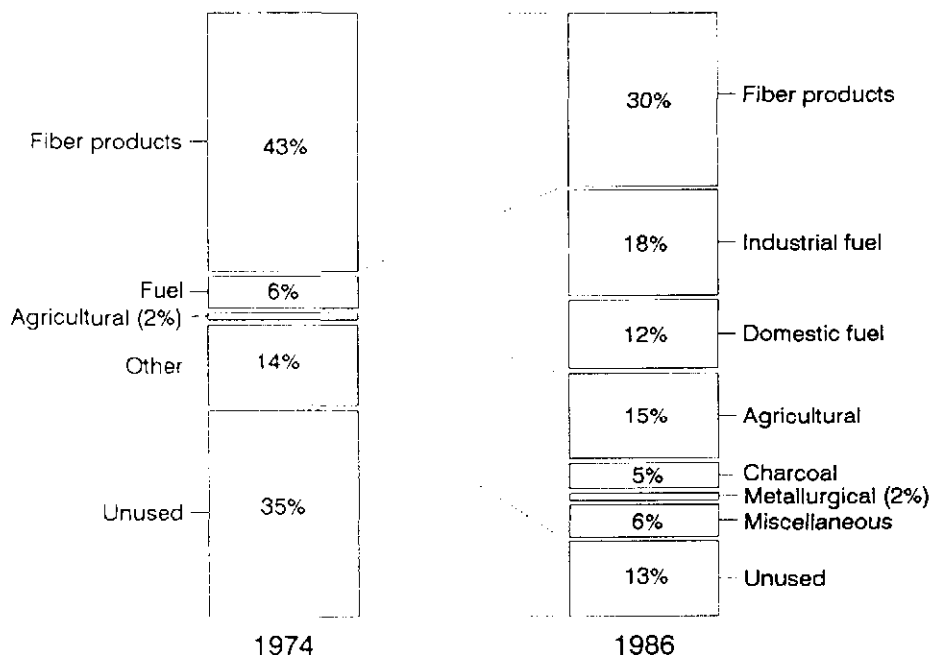
Mills in Kentucky have shown a dramatic reduction in the amount of waste left following the manufacture of primary forest products. In 1974, 35 percent went unused. Only 13 percent was wasted in 1986.

The use of mill residue for fuel, both domestic and industrial, rose more than any other use. From only 6 percent in 1974, to 30 percent 1986, the increased use of mill residue for fuel came from two sources: a desire for self-sufficiency on the part of some mills to meet internal energy requirements, and a residual effect of the energy

crisis that began in the early seventies when more homeowners began burning wood. By 1986, the use of mill residue for fuel equalled the proportion of mill residue used for fiber products such as woodpulp.

Agricultural uses also increased, from a mere 2 percent in 1974. In 1986, 15 percent of mill residue were used as bedding, litter, or mulch. The increased use of these residues and of those used as fuel in boilers or fireplaces came, not only from mill residues previously unused, but also from direct competition with fiber products.

Percent change in the end use of mill residues



More Use Made of Coarse Mill Residue

More than 68 million ft³ of residue were generated by manufacturing primary wood products in Kentucky during 1986. Of this, almost 15 million ft³, or 21 percent, was bark. An additional 28 million ft³ of coarse residue suitable for chipping and 26 million ft³ of fine residue too small to be chipped were generated. Together, these latter two kinds of woody residue accounted for 78 percent of all manufacturing residue.

To varying degrees, bark and fine residue were not used as much as coarse residue. Only 8 percent of the total volume of coarse residue produced from primary wood man-

ufacturing remained unused in 1986, compared to 13 percent and 18 percent for bark and fine residue.

Most of the coarse residue that the mills generated were used for fiber products: such as woodpulp. Bark and fine residue, on the other hand, were used primarily for agriculture and fuel. The energy crisis of the early seventies caused an increased use of residue for fuel and recent emphasis on environmentally safe ways for disposing of residue have contributed to an increased use of residue for fuel and in agriculture.

End use of mill residue, by type of residue
(thousand ft³)

Type of use	Type of residue			Total all types
	Bark	Coarse	Fine	
Fiber products	671	18,453	1,208	20,332
Industrial fuel	2,854	421	9,181	12,456
Domestic fuel	2,553	4,085	1,354	7,992
Agricultural uses	3,787	969	5,355	10,111
Charcoal wood	835	830	1,614	3,279
Chemical and metallurgical	806	259	73	1,138
Miscellaneous uses	1,210	616	2,585	4,411
Total used	12,716	25,633	21,370	59,719
Not used	1,970	2,140	4,587	8,697
All residues	14,686	27,773	25,957	68,416

Definitions

Cabin logs – A roundwood product cut to standard sizes used in constructing cabins, barns, and other rustic buildings.

Chemical and metallurgical wood – Roundwood, whole-tree chips, or manufacturing plant residues used as a reducing agent in the smelting of metal-bearing ores.

Consumption – The total volume of roundwood used within the boundaries of a specified area, regardless of where harvested. Consumption is the sum of timber harvested and used within that area, plus all roundwood that was imported.

Dimension logs and bolts – A roundwood product sawn into material of varying sizes to make optimum use of the raw material.

Handle logs and bolts – A roundwood product to be turned on a lathe to produce varying sizes of round handles for tools and implements.

Hardwoods – Dicotyledonous trees, usually broad-leaved and deciduous.

Manufacturing residue – Bark and woody material generated when roundwood is converted into wood products. Coarse residue include slabs, edgings, trimmings, veneer cores, and clippings, all of which are suitable for chipping. Fine residue which include sawdust, shavings, and pulp screenings, is not suitable for chipping.

Mine timbers – A roundwood product, rough-hewn or sawn, used as structural support in underground mining activities.

Posts – A roundwood product to be processed into short, round material used to support fencing structures.

Primary wood manufacturer – A plant that converts roundwood to a product such as woodpulp, lumber, veneer, cooperage, and dimension stock, which may be used as is or re-manufactured or processed into a secondary wood product.

Production – The total volume of roundwood harvested within the boundaries of a specified area, regardless of where used. Production is the sum of timber harvested and used within that area, plus all roundwood exported.

Pulpwood – Roundwood, whole-tree chips, or manufacturing residue used to produce woodpulp.

Roundwood – Logs, bolts, and other rough timber generated from harvesting trees for industrial or commercial use.

Sawlog – A roundwood product from which lumber is sawn, meeting minimum length specifications of eight feet.

Softwoods – Coniferous trees, usually evergreen with needles or scale-like leaves.

Standard cord – A unit of measure of stacked wood 4 ft wide, 4 ft high, and 8 ft long, containing 128 ft³ of wood, bark, and air space. By USDA Forest Service definition, a standard cord contains 85 ft³ of solid wood.

Veneer logs and bolts – A roundwood product from which veneer is sliced or sawn, meeting local standards for diameter, length, and defect.

Whole tree chips – Unbarked wood chips generated by harvesting and chipping some portion of aboveground tree components.

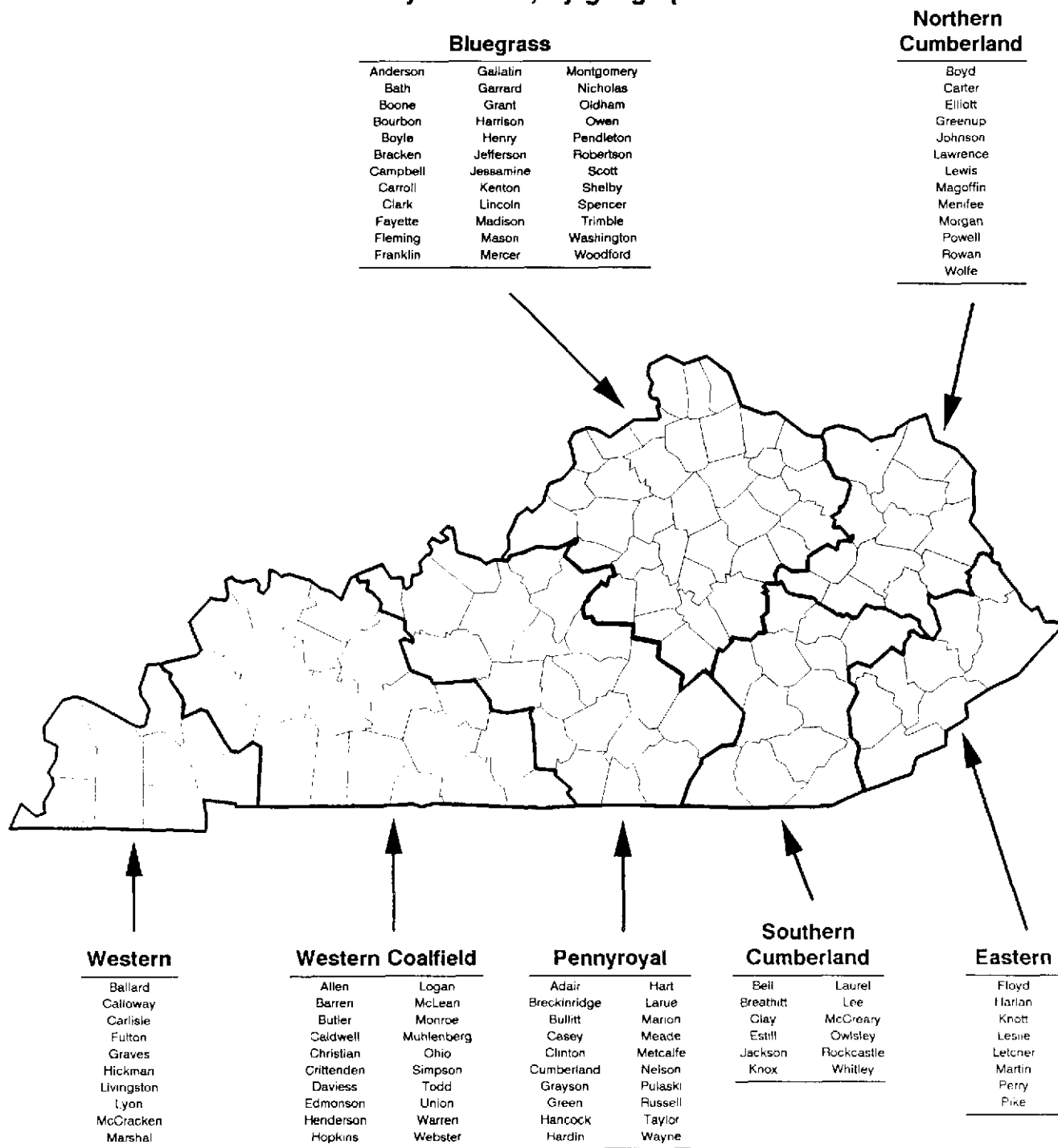
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Kentucky counties, by geographic unit



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CONVERSION FACTORS

1 mbf softwood sawlogs and veneer logs = 149.1 ft³

1 mbf hardwood sawlogs and veneer logs = 141.3 ft³

1 mbf softwood and hardwood other products = 140.4 ft³

1 standard cord pulpwood = 85 ft³ solid wood

1 green ton softwoods = 37.037 ft³

1 green ton hardwoods = 30.303 ft³

1 ft³ = .0283 m³

Table 1.--Production of sawlogs, by species and destination of shipments, in the EASTERN UNIT of Kentucky, 1986

Species	Retained within the unit	In-state production		Total production	
		Exported to other units	Total	Exported to other states	Total
----- mbf ^a -----					
Hemlock	314	10	324	0	324
Shortleaf pine	588	0	588	0	588
Virginia pine	279	0	279	0	279
Other pines	0	0	0	0	0
Eastern redcedar	0	0	0	0	0
Other softwoods	12	0	12	0	12
Total softwoods	1,193	10	1,203	0	1,203
Ash	1,498	278	1,776	60	1,836
Beech	1,596	272	1,868	0	1,868
Gum ^b	303	0	303	0	303
Hickory	2,962	271	3,233	0	3,233
Hard maple	3,496	311	3,807	0	3,807
Northern red oak	5,007	279	5,286	180	5,466
Black oak	4,304	859	5,163	451	5,614
Other red oaks	3,107	1	3,108	270	3,378
White oak	3,824	257	4,081	324	4,405
Chestnut oak	2,800	397	3,197	481	3,678
Other white oaks	157	9	166	0	166
Yellow-poplar	10,176	1,464	11,640	0	11,640
Other hardwoods ^c	874	79	953	36	989
Total hardwoods	40,104	4,477	44,581	1,802	46,383
All species	41,297	4,487	45,784	1,802	47,586

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum.

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 2.--Consumption of sawlogs, by species and destination of shipments, in the EASTERN UNIT of Kentucky, 1986

Species	Retained within the unit	In-state consumption		Total consumption	
		Imported from other units	Total	Imported from other states	Total
----- mbf ^a -----					
Hemlock	314	42	356	0	356
Shortleaf pine	588	239	827	0	827
Virginia pine	279	40	319	0	319
Other pines	0	0	0	0	0
Eastern redcedar	0	0	0	0	0
Other softwoods	12	0	12	0	12
Total softwoods	1,193	321	1,514	0	1,514
Ash	1,498	259	1,757	0	1,757
Beech	1,596	200	1,796	0	1,796
Gum ^b	303	53	356	0	356
Hickory	2,962	643	3,605	0	3,605
Hard maple	3,496	562	4,058	0	4,058
Northern red oak	5,007	912	5,919	0	5,919
Black oak	4,304	1,040	5,344	0	5,344
Other red oaks	3,107	997	4,104	0	4,104
White oak	3,824	675	4,499	0	4,499
Chestnut oak	2,800	668	3,468	0	3,468
Other white oaks	157	0	157	0	157
Yellow-poplar	10,176	1,681	11,857	0	11,857
Other hardwoods ^c	874	115	989	0	989
Total hardwoods	40,104	7,805	47,909	0	47,909
All species	41,297	8,126	49,423	0	49,423

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 3.--Production of sawlogs, by species and destination of shipments, in the NORTHERN CUMBERLAND UNIT of Kentucky, 1986

Species	Retained within the unit	In-state production		Total production	
		Exported to other units	Total	Exported to other states	Total
		----- mbf ^a -----			
Hemlock	98	64	162	0	162
Shortleaf pine	2,157	143	2,300	0	2,300
Virginia pine	2,016	205	2,221	0	2,221
Other pines	923	32	955	3	958
Eastern redcedar	0	0	0	124	124
Other softwoods	370	15	385	0	385
Total softwoods	5,564	459	6,023	127	6,150
Ash	2,468	1,378	3,846	324	4,170
Beech	1,836	1,389	3,225	8	3,233
Gum ^b	175	0	175	136	311
Hickory	4,684	1,578	6,262	86	6,348
Hard maple	1,768	1,484	3,252	0	3,252
Northern red oak	6,113	1,346	7,459	680	8,139
Black oak	10,572	4,350	14,922	1,437	16,359
Other red oaks	10,347	555	10,902	998	11,900
White oak	13,561	1,957	15,518	1,128	16,646
Chestnut oak	8,375	2,697	11,072	1,552	12,624
Other white oaks	131	394	525	348	873
Yellow-poplar	17,608	7,291	24,899	168	25,067
Other hardwoods ^c	1,613	428	2,041	433	2,474
Total hardwoods	79,251	24,847	104,098	7,298	111,396
All species	84,815	25,306	110,121	7,425	117,546

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 4.--Consumption of sawlogs, by species and destination of shipments, in the NORTHERN CUMBERLAND UNIT of Kentucky, 1986

Species	Retained within the unit	In-state consumption		Total consumption	
		Imported from other units	Total	Imported from other states	Total
		----- mbf ^a -----			
Hemlock	98	38	136	0	136
Shortleaf pine	2,191	180	2,371	0	2,371
Virginia pine	2,067	80	2,147	0	2,147
Other pines	923	32	955	0	955
Eastern redcedar	0	0	0	0	0
Other softwoods	370	386	756	0	756
Total softwoods	5,649	716	6,365	0	6,365
Ash	2,502	311	2,813	0	2,813
Beech	1,866	266	2,132	0	2,132
Gum ^b	180	49	229	0	229
Hickory	4,754	445	5,199	0	5,199
Hard maple	1,793	221	2,014	0	2,014
Northern red oak	6,159	792	6,951	0	6,951
Black oak	10,728	1,295	12,023	0	12,023
Other red oaks	10,411	1,537	11,948	0	11,948
White oak	14,220	1,785	16,005	0	16,005
Chestnut oak	8,440	1,234	9,674	0	9,674
Other white oaks	136	0	136	0	136
Yellow-poplar	17,788	2,097	19,885	0	19,885
Other hardwoods ^c	2,399	90	2,489	0	2,489
Total hardwoods	81,376	10,122	91,498	0	91,498
All species	87,025	10,838	97,863	0	97,863

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 5.--Production of sawlogs, by species and destination of shipments, in the SOUTHERN CUMBERLAND UNIT of Kentucky, 1986

Species	Retained within the unit	In-state production		Total production	
		Exported to other units	Total	Exported to other states	Total
----- mbf ^a -----					
Hemlock	1,903	60	1,963	0	1,963
Shortleaf pine	15,384	1,202	16,586	4,127	20,713
Virginia pine	2,746	72	2,818	11	2,829
Other pines	258	234	492	1,222	1,714
Eastern redcedar	378	63	441	0	441
Other softwoods	544	386	930	150	1,080
Total softwoods	21,213	2,017	23,230	5,510	28,740
Ash	1,590	988	2,578	8	2,586
Beech	1,243	1,129	2,372	0	2,372
Gum ^b	962	464	1,426	15	1,441
Hickory	2,473	2,617	5,090	56	5,146
Hard maple	1,339	1,768	3,107	0	3,107
Northern red oak	8,835	3,865	12,700	370	13,070
Black oak	6,937	3,790	10,727	0	10,727
Other red oaks	5,057	3,142	8,199	0	8,199
White oak	9,395	4,681	14,076	159	14,235
Chestnut oak	4,997	3,471	8,468	0	8,468
Other white oaks	222	96	318	0	318
Yellow-poplar	11,528	5,427	16,955	323	17,278
Other hardwoods ^c	1,855	1,634	3,489	6,739	10,228
Total hardwoods	56,433	33,072	89,505	7,670	97,175
All species	77,646	35,089	112,735	13,180	125,915

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 6.--Consumption of sawlogs, by species and destination of shipments, in the SOUTHERN CUMBERLAND UNIT of Kentucky, 1986

Species	Retained within the unit	In-state consumption		Total consumption	
		Imported from other units	Total	Imported from other states	Total
			mbf ^a		
Hemlock	2,192	68	2,260	0	2,260
Shortleaf pine	16,250	98	16,348	0	16,348
Virginia pine	2,965	33	2,998	0	2,998
Other pines	258	1	259	0	259
Eastern redcedar	378	0	378	0	378
Other softwoods	544	0	544	0	544
Total softwoods	22,587	200	22,787	0	22,787
Ash	1,806	1,774	3,580	0	3,580
Beech	1,335	1,818	3,153	0	3,153
Gum ^b	1,124	62	1,186	0	1,186
Hickory	2,689	1,887	4,576	0	4,576
Hard maple	1,493	1,811	3,304	0	3,304
Northern red oak	10,292	1,741	12,033	0	12,033
Black oak	7,361	5,133	12,494	0	12,494
Other red oaks	5,060	82	5,142	0	5,142
White oak	10,091	1,724	11,815	0	11,815
Chestnut oak	5,531	2,598	8,129	0	8,129
Other white oaks	259	18	277	0	277
Yellow-poplar	12,277	7,859	20,136	0	20,136
Other hardwoods ^c	2,071	544	2,615	0	2,615
Total hardwoods	61,389	27,051	88,440	0	88,440
All species	83,976	27,251	111,227	0	111,227

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 7.--Production of sawlogs, by species and destination of shipments, in the BLUEGRASS UNIT of Kentucky, 1986

Species	Retained within the unit	In-state production		Total production	
		Exported to other units	Total	Exported to other states	Total
			mbf ^a		
Hemlock	32	20	52	0	52
Shortleaf pine	582	191	773	0	773
Virginia pine	266	52	318	0	318
Other pines	577	8	585	0	585
Eastern redcedar	1,114	566	1,680	496	2,176
Other softwoods	1,955	0	1,955	0	1,955
Total softwoods	4,526	837	5,363	496	5,859
Ash	541	864	1,405	1,003	2,408
Beech	820	801	1,621	42	1,663
Gum ^b	262	413	675	9	684
Hickory	1,396	1,363	2,759	113	2,872
Hard maple	730	545	1,275	10	1,285
Northern red oak	1,519	1,629	3,148	156	3,304
Black oak	2,888	1,452	4,340	301	4,641
Other red oaks	1,596	2,075	3,671	275	3,946
White oak	3,604	2,876	6,480	53	6,533
Chestnut oak	2,392	1,396	3,788	37	3,825
Other white oaks	570	188	758	18	776
Yellow-poplar	3,321	2,983	6,304	162	6,466
Other hardwoods ^c	1,112	1,114	2,226	222	2,448
Total hardwoods	20,751	17,699	38,450	2,401	40,851
All species	25,277	18,536	43,813	2,897	46,710

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 8.--Consumption of sawlogs, by species and destination of shipments, in the BLUEGRASS UNIT of Kentucky, 1986

Species	Retained within the unit	In-state consumption		Total consumption	
		Imported from other units	Total	Imported from other states	Total
----- mbf ^a -----					
Hemlock	32	64	96	0	96
Shortleaf pine	582	143	725	0	725
Virginia pine	266	205	471	0	471
Other pines	577	219	796	0	796
Eastern redcedar	1,325	0	1,325	0	1,325
Other softwoods	1,955	543	2,498	0	2,498
Total softwoods	4,737	1,174	5,911	0	5,911
Ash	541	362	903	0	903
Beech	820	319	1,139	0	1,139
Gum ^b	262	155	417	0	417
Hickory	1,396	830	2,226	0	2,226
Hard maple	730	475	1,205	0	1,205
Northern red oak	1,526	838	2,364	0	2,364
Black oak	2,888	1,700	4,588	0	4,588
Other red oaks	1,603	886	2,489	0	2,489
White oak	3,619	2,684	6,303	0	6,303
Chestnut oak	2,392	1,633	4,025	0	4,025
Other white oaks	570	406	976	0	976
Yellow-poplar	3,321	2,928	6,249	0	6,249
Other hardwoods ^c	1,750	837	2,587	0	2,587
Total hardwoods	21,418	14,053	35,471	0	35,471
All species	26,155	15,227	41,382	0	41,382

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 9.--Production of sawlogs, by species and destination of shipments, in the PENNYROYAL UNIT of Kentucky, 1986

Species	Retained within the unit	In-state production		Total production	
		Exported to other units	Total	Exported to other states	Total
		----- mbf ^a -----			
Hemlock	0	58	58	0	58
Shortleaf pine	1,300	98	1,398	0	1,398
Virginia pine	187	33	220	14	234
Other pines	498	1	499	14	513
Eastern redcedar	1,301	0	1,301	55	1,356
Other softwoods	0	528	528	28	556
Total softwoods	3,286	718	4,004	111	4,115
Ash	5,881	2,514	8,395	919	9,314
Beech	7,563	5,870	13,433	127	13,560
Gum ^b	4,470	2,503	6,973	256	7,229
Hickory	15,169	4,731	19,900	0	19,900
Hard maple	6,876	3,047	9,923	29	9,952
Northern red oak	11,931	4,251	16,182	843	17,025
Black oak	8,842	5,048	13,890	127	14,017
Other red oaks	17,433	2,523	19,956	127	20,083
White oak	22,140	6,081	28,221	225	28,446
Chestnut oak	8,065	3,993	12,058	127	12,185
Other white oaks	3,691	382	4,073	0	4,073
Yellow-poplar	18,100	5,238	23,338	595	23,933
Other hardwoods ^c	14,636	5,128	19,764	177	19,941
Total hardwoods	144,797	51,309	196,106	3,552	199,658
All species	148,083	52,027	200,110	3,663	203,773

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 10.--Consumption of sawlogs, by species and destination of shipments, in the PENNYROYAL UNIT of Kentucky, 1986

Species	Retained within the unit	In-state consumption		Total consumption	
		Imported from other units	Total	Imported from other states	Total
----- mbf ^a -----					
Hemlock	0	0	0	0	0
Shortleaf pine	1,330	974	2,304	0	2,304
Virginia pine	187	4	191	0	191
Other pines	498	465	963	0	963
Eastern redcedar	1,398	1,577	2,975	0	2,975
Other softwoods	0	0	0	0	0
Total softwoods	3,413	3,020	6,433	0	6,433
Ash	5,938	1,549	7,487	0	7,487
Beech	7,775	1,942	9,717	0	9,717
Gum ^b	4,556	1,159	5,715	0	5,715
Hickory	15,439	3,233	18,672	0	18,672
Hard maple	7,003	2,062	9,065	0	9,065
Northern red oak	12,101	4,220	16,321	0	16,321
Black oak	9,024	2,877	11,901	0	11,901
Other red oaks	17,743	3,281	21,024	0	21,024
White oak	22,540	7,148	29,688	0	29,688
Chestnut oak	8,294	3,019	11,313	0	11,313
Other white oaks	3,786	260	4,046	0	4,046
Yellow-poplar	18,419	4,386	22,805	0	22,805
Other hardwoods ^c	14,922	3,227	18,149	0	18,149
Total hardwoods	147,540	38,363	185,903	0	185,903
All species	150,953	41,383	192,336	0	192,336

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 11.--Production of sawlogs, by species and destination of shipments, in the WESTERN COALFIELD UNIT of Kentucky, 1986

Species	Retained within the unit	In-state production		Total production	
		Exported to other units	Total	Exported to other states	Total
		----- mbf ^a -----			
Hemlock	29	0	29	0	29
Shortleaf pine	17	0	17	0	17
Virginia pine	34	0	34	0	34
Other pines	20	400	420	0	420
Eastern redcedar	1,039	1,082	2,121	20	2,141
Other softwoods	0	0	0	0	0
Total softwoods	1,139	1,482	2,621	20	2,641
Ash	7,256	1,293	8,549	270	8,819
Beech	6,176	861	7,037	135	7,172
Gum ^b	9,014	539	9,553	127	9,680
Hickory	12,168	1,318	13,486	341	13,827
Hard maple	8,093	950	9,043	153	9,196
Northern red oak	6,481	3,999	10,480	682	11,162
Black oak	30,021	1,666	31,687	522	32,209
Other red oaks	7,919	4,123	12,042	2,232	14,274
White oak	6,689	8,162	14,851	449	15,300
Chestnut oak	19,121	454	19,575	0	19,575
Other white oaks	2,364	0	2,364	844	3,208
Yellow-poplar	14,935	2,419	17,354	1,552	18,906
Other hardwoods ^c	17,148	2,099	19,247	456	19,703
Total hardwoods	147,385	27,883	175,268	7,763	183,031
All species	148,524	29,365	177,889	7,783	185,672

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 12.--Consumption of sawlogs, by species and destination of shipments, in the WESTERN COALFIELD UNIT of Kentucky, 1986

Species	Retained within the unit	In-state consumption		Total consumption	
		Imported from other units	Total	Imported from other states	Total
----- mbf ^a -----					
Hemlock	29	0	29	0	29
Shortleaf pine	17	0	17	0	17
Virginia pine	34	0	34	0	34
Other pines	20	0	20	0	20
Eastern redcedar	1,039	0	1,039	0	1,039
Other softwoods	0	0	0	0	0
Total softwoods	1,139	0	1,139	0	1,139
Ash	7,416	3,599	11,015	0	11,015
Beech	6,341	5,862	12,203	0	12,203
Gum ^b	9,347	3,485	12,832	0	12,832
Hickory	12,791	5,786	18,577	0	18,577
Hard maple	8,269	3,537	11,806	0	11,806
Northern red oak	7,042	4,079	11,121	0	11,121
Black oak	30,305	6,534	36,839	0	36,839
Other red oaks	8,223	3,305	11,528	0	11,528
White oak	7,325	5,783	13,108	0	13,108
Chestnut oak	19,304	4,836	24,140	0	24,140
Other white oaks	2,414	449	2,863	0	2,863
Yellow-poplar	15,535	6,052	21,587	0	21,587
Other hardwoods ^c	17,943	7,386	25,329	0	25,329
Total hardwoods	152,255	60,693	212,948	0	212,948
All species	153,394	60,693	214,087	0	214,087

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 13.--Production of sawlogs, by species and destination of shipments, in the WESTERN UNIT of Kentucky, 1986

Species	Retained within the unit	In-state production		Total production	
		Exported to other units	Total	Exported to other states	Total
		----- mbf ^a -----			
Hemlock	0	0	0	0	0
Shortleaf pine	0	0	0	0	0
Virginia pine	0	0	0	0	0
Other pines	17	42	59	2	61
Eastern redcedar	72	0	72	20	92
Other softwoods	164	0	164	0	164
Total softwoods	253	42	295	22	317
Ash	2,034	1,132	3,166	86	3,252
Beech	543	309	852	39	891
Gum ^b	5,613	1,169	6,782	436	7,218
Hickory	4,068	1,588	5,656	200	5,856
Hard maple	593	883	1,476	7	1,483
Northern red oak	15,771	432	16,203	1,274	17,477
Black oak	4,992	2,682	7,674	261	7,935
Other red oaks	10,498	823	11,321	585	11,906
White oak	20,015	1,175	21,190	954	22,144
Chestnut oak	0	1,577	1,577	0	1,577
Other white oaks	126	61	187	0	187
Yellow-poplar	3,867	1,432	5,299	608	5,907
Other hardwoods ^c	7,057	2,614	9,671	521	10,192
Total hardwoods	75,177	15,877	91,054	4,971	96,025
All species	75,430	15,919	91,349	4,993	96,342

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 14.--Consumption of sawlogs, by species and destination of shipments, in the WESTERN UNIT of Kentucky, 1986

Species	Retained within the unit	In-state consumption		Total consumption	
		Imported from other units	Total	Imported from other states	Total
		----- mbf ^a -----			
Hemlock	0	0	0	0	0
Shortleaf pine	0	0	0	0	0
Virginia pine	0	0	0	0	0
Other pines	17	0	17	0	17
Eastern redcedar	72	134	206	0	206
Other softwoods	172	0	172	0	172
Total softwoods	261	134	395	0	395
Ash	2,220	593	2,813	0	2,813
Beech	593	224	817	0	817
Gum ^b	6,833	125	6,958	0	6,958
Hickory	4,321	642	4,963	0	4,963
Hard maple	676	327	1,003	0	1,003
Northern red oak	16,970	3,233	20,203	0	20,203
Black oak	5,209	1,268	6,477	0	6,477
Other red oaks	12,338	3,154	15,492	0	15,492
White oak	21,730	5,393	27,123	0	27,123
Chestnut oak	0	0	0	0	0
Other white oaks	210	0	210	0	210
Yellow-poplar	4,558	1,277	5,835	0	5,835
Other hardwoods ^c	7,454	1,152	8,606	0	8,606
Total hardwoods	83,112	17,388	100,500	0	100,500
All species	83,373	17,522	100,895	0	100,895

^aInternational 1/4-inch rule

^bIncludes black gum and sweetgum

^cIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

8 Table 15.--Production of sawlogs, by species and destination of shipments, Kentucky, 1986

Species	Retained within the state	Exported to other states					All states	Total production
		Indiana	Ohio	Tennessee	Virginia	Other states ^a		
		----- mbf ^b -----						
Hemlock	2,588	0	0	0	0	0	0	2,588
Shortleaf pine	21,662	0	0	4,127	0	0	4,127	25,789
Virginia pine	5,890	0	0	25	0	0	25	5,915
Other pines	3,010	0	3	1,238	0	0	1,241	4,251
Eastern redcedar	5,615	55	620	40	0	0	715	6,330
Other softwoods	3,974	0	0	178	0	0	178	4,152
Total softwoods	42,739	55	623	5,608	0	0	6,286	49,025
Ash	29,715	1,135	1,441	94	0	0	2,670	32,385
Beech	30,408	304	8	39	0	0	351	30,759
Gum ^c	25,887	370	136	458	15	0	979	26,866
Hickory	56,386	316	86	379	15	0	796	57,182
Hard maple	31,883	192	0	7	0	0	199	32,082
Northern red oak	71,458	953	866	2,074	292	0	4,185	75,643
Black oak	88,403	161	1,894	1,044	0	0	3,099	91,502
Other red oaks	69,199	2,389	1,513	585	0	0	4,487	73,686
White oak	104,417	235	1,452	1,532	73	0	3,292	107,709
Chestnut oak	59,735	139	2,058	0	0	0	2,197	61,932
Other white oaks	8,391	862	348	0	0	0	1,210	9,601
Yellow-poplar ^d	105,789	1,906	193	976	292	41	3,408	109,197
Other hardwoods ^d	57,391	439	611	7,240	44	250	8,584	65,975
Total hardwoods	739,062	9,401	10,606	14,428	731	291	35,457	774,519
All species	781,801	9,456	11,229	20,036	731	291	41,743	823,544

^aIncludes Missouri, South Carolina, and West Virginia

^bInternational 1/4-inch rule

^cIncludes black gum and sweetgum

^dIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 16.--Consumption of sawlogs, by species and destination of shipments, Kentucky, 1986

Species	Retained within the state	Imported from other states					All states	Total consumption
		Illinois	Indiana	Tennessee	West Virginia	Other states ^a		
		mbf ^b						
Hemlock	2,588	0	0	289	0	0	289	2,877
Shortleaf pine	21,662	0	0	896	34	0	930	22,592
Virginia pine	5,890	0	0	219	51	0	270	6,160
Other pines	3,010	0	0	0	0	0	0	3,010
Eastern redcedar	5,615	0	177	97	0	34	308	5,923
Other softwoods	3,974	5	0	3	0	0	8	3,982
Total softwoods	42,739	5	177	1,504	85	34	1,805	44,544
Ash	29,715	35	11	577	24	6	653	30,368
Beech	30,408	7	8	504	30	0	549	30,957
Gum ^c	25,887	94	6	1,701	5	0	1,806	27,693
Hickory	56,386	94	11	1,257	70	0	1,432	57,818
Hard maple	31,883	32	8	500	25	7	572	32,455
Northern red oak	71,458	268	7	3,123	36	20	3,454	74,912
Black oak	88,403	165	0	949	135	14	1,263	89,666
Other red oaks	69,199	391	84	1,989	64	0	2,528	71,727
White oak	104,417	236	15	3,341	269	263	4,124	108,541
Chestnut oak	59,735	0	0	946	65	3	1,014	60,749
Other white oaks	8,391	10	57	199	5	3	274	8,665
Yellow-poplar ^d	105,789	37	77	2,245	180	26	2,565	108,354
Other hardwoods ^d	57,391	94	266	2,199	201	613	3,373	60,764
Total hardwoods	739,062	1,463	550	19,530	1,109	955	23,607	762,669
All species	781,801	1,468	727	21,034	1,194	989	25,412	807,213

^aIncludes Ohio and Virginia^bInternational 1/4-inch rule^cIncludes black gum and sweetgum^dIncludes soft maple, basswood, cottonwood, elm, sycamore, and black walnut

Table 17.--Production of pulpwood from roundwood, by species and destination of shipments, Kentucky, 1986

Species	Retained within the state	Exported to other states						Total production
		Illinois	Mississippi	Ohio	Tennessee	Other states ^a	All states	
----- thousand standard cords ^b -----								
Total softwoods ^c	3,435	0	0	445	21,773	0	22,218	25,653
Aspen and poplar	10,592	0	0	0	0	0	0	10,592
Oak and hickory	96,296	0	0	16,981	0	499	17,480	113,776
Other hardwoods	18,059	0	0	0	0	488	488	18,547
Total hardwoods	124,947	0	0	16,981	0	987	17,968	142,915
All species	128,382	0	0	17,426	21,773	987	40,186	168,568

^aIncludes Indiana and Missouri^bRough cord equivalents encompassing 128 ft³ of wood, bark, and air space; 85 ft³ of solid wood^cIncludes pine only

Table 18.--Consumption of pulpwood from roundwood, by species and destination of shipments, Kentucky, 1986

Species	Retained within the state	Imported to other states						Total consumption
		Illinois	Mississippi	Ohio	Tennessee	Other states ^a	All states	
				thousand	standard cords ^b			
Total softwoods ^c	3,435	8,441	40,096	0	20,389	2,153	71,079	74,514
Aspen and poplar	10,592	1,178	1,045	0	1,275	335	3,833	14,425
Oak and hickory	96,296	7,994	24,829	0	72,416	21,868	127,107	223,403
Other hardwoods	18,059	7,749	10,697	0	13,043	981	32,470	50,529
Total hardwoods	124,947	16,921	36,571	0	86,734	23,184	163,410	288,357
All species	128,382	25,362	76,667	0	107,123	25,337	234,489	362,871

^aIncludes Indiana and Missouri

^bRough cord equivalents encompassing 128 ft³ of wood, bark, and air space; 85 ft³ of solid wood

^cIncludes pine only

^aIncludes Missouri, Ohio, and West Virginia

^bInternational 1/4-inch rule

^cIncludes black gum and sweetgum

d. Includes maple, basswood, ash, cottonwood, elm, sycamore, and black walnut

Table 20.--Consumption of veneer and cooperage logs, by species and destination of shipments, Kentucky, 1986

Species	Retained within the state	Imported from other states					All states	Total consumption
		Indiana	N. Carolina	Tennessee	Virginia	Other states ^a		
Total softwoods	0	0	0	0	0	0	0	0
Gum ^c	2	0	0	8	0	0	8	10
Hickory	0	0	0	0	0	0	0	0
Northern red oak	4	0	0	21	0	0	21	25
White oak	2,153	0	0	21	0	0	21	2,174
Other oaks	0	0	0	0	0	0	0	0
Yellow-poplar	37	0	0	146	0	0	146	183
Other hardwoods ^d	2	0	0	13	0	0	13	15
Total hardwoods	2,198	0	0	209	0	0	209	2,407
All species	2,198	0	0	209	0	0	209	2,407

^aIncludes Missouri, Ohio, and West Virginia

^bInternational 1/4-inch rule

^cIncludes black gum and sweetgum

^dIncludes maple, basswood, ash, cottonwood, elm, sycamore and black walnut

Table 21.--Production of other products^a, by species and destination of shipments, Kentucky, 1986

Species	Retained within the state	Exported to other states						Total production
		Illinois	Indiana	Missouri	Tennessee	Other states ^b	All states	
		mft ³						
Shortleaf pine	5,376	0	0	0	0	0	0	5,376
Virginia pine	11,364	0	0	0	0	0	0	11,364
Other pines	34	0	0	0	0	0	0	34
Eastern redcedar	731	0	0	0	0	0	0	731
Other softwoods	660	0	0	0	0	0	0	660
Total softwoods	18,165	0	0	0	0	0	0	18,165
Ash	670	0	0	20	0	0	20	690
Beech	288	0	0	0	0	0	0	288
Gum ^c	732	0	0	0	0	0	0	732
Hickory	591	0	0	61	0	0	61	652
Hard maple	112	0	0	0	0	0	0	112
Northern red oak	3,025	0	0	0	0	0	0	3,025
Black oak	1,405	0	0	0	0	0	0	1,405
Other red oaks	355	0	0	0	0	0	0	355
White oak	1,809	0	0	0	0	0	0	1,809
Chestnut oak	215	0	0	0	0	0	0	215
Other white oaks	223	0	0	0	0	0	0	223
Yellow-poplar	960	0	0	0	0	0	0	960
Other hardwoods ^d	1,229	0	0	0	54	0	54	1,283
Total hardwoods	11,614	0	0	81	54	0	135	11,749
All species	29,779	0	0	81	54	0	135	29,914

^aIncludes mine timbers, dimension and handle bolts, fence posts, poles, cabin logs, and logs or bolts made into charcoal and golf blanks

^bIncludes Alabama, Arkansas, and Ohio

^cIncludes black gum and sweetgum

^dIncludes soft maple, basswood, elm, and sycamore

Table 22.--Consumption of other products^a, by species and destination of shipments, Kentucky, 1986

Species	Retained within the state	Imported from other states						Total consumption
		Illinois	Indiana	Missouri	Tennessee	Other states ^b	All states	
		mft ³						
Shortleaf pine	5,376	0	0	0	0	0	0	5,376
Virginia pine	11,364	0	0	0	0	0	0	11,364
Other pines	34	0	0	0	0	0	0	34
Eastern redcedar	731	0	68	0	0	6	74	805
Other softwoods	660	0	0	0	0	0	0	660
Total softwoods	18,165	0	68	0	0	6	74	18,239
Ash	670	0	0	0	0	0	0	670
Beech	288	0	0	0	0	0	0	288
Gum ^c	732	0	0	0	0	0	0	732
Hickory	591	0	0	0	0	0	0	591
Hard maple	112	0	0	0	0	0	0	112
Northern red oak	3,025	0	0	0	0	0	0	3,025
Black oak	1,405	0	0	0	0	0	0	1,405
Other red oaks	355	0	0	0	84	0	84	439
White oak	1,809	0	0	0	0	0	0	1,809
Chestnut oak	215	0	0	0	0	0	0	215
Other white oaks	223	0	0	0	63	0	63	286
Yellow-poplar	960	0	0	0	0	0	0	960
Other hardwoods ^d	1,229	94	93	93	113	84	477	1,706
Total hardwoods	11,614	94	93	93	260	84	624	12,238
All species	29,779	94	161	93	260	90	698	30,477

^aIncludes mine timbers, dimension and handle bolts, fence posts, poles, cabin logs, and logs or bolts made into charcoal and golf blanks

^bIncludes Alabama, Arkansas, and Ohio

^cIncludes black gum and sweetgum

^dIncludes soft maple, basswood, elm, and sycamore

Wharton, Eric H.; Kayse, Stephen C.; Nevel, Robert L., Jr. 1992. **The timber industries of Kentucky, 1986**. Resour. Bull. NE-120. Radnor, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 37 p.

A statistical report based on a survey of primary wood manufacturers using wood from Kentucky. Contains statistics on production and consumption of industrial forest products by species, geographic units, and state; and production and disposition of manufacturing residues. Includes graphics and statistical tables showing current and historical data.

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