Charcoal and Charcoal Briquette Production in the United States, 1961

U. S. DEPARTMENT OF AGRICULTURE. . . . . FOREST SERVICE
DIVISION OF FOREST ECONOMICS AND MARKETING RESEARCH

FEBRUARY 1963

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February 1963

PREFACE

This report presents data on the quantities of charcoal[1] and charcoal briquettes produced in the United States during 1961; the principal markets for charcoal and charcoal briquettes; average selling prices; characteristics of charcoal kilns; plant capacity; the kind, quantity, and cost of materials consumed: and the location of manufacturing facilities. A similar report was published in 1957 under the title "Charcoal Production in the United States."

The survey, upon which this report was based, was conducted by the regional experiment stations of the Forest Service. Every effort was made to obtain through State Foresters, Extension Foresters, Service Foresters, County Agents, and other local sources of information a complete list of the charcoal producers in the United States in 1961. A mail canvass, with field followup of nonrespondents, was made of all producers on this list. The data in this report are thus based upon returns from essentially all- known charcoal producers with estimates for a few nonreporting plants.

[1]The term charcoal as used in this report refers only to the carbon material made from wood.

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CHARCOAL AND CHARCOAL BRIQUETTE PRODUCTION IN THE UNITED STATES, 1961

Charcoal Production Shows Substantial Rise Since the Mid-1950's

Charcoal production in the United States in 1961 amounted to 328,000 tons (table 1, fig. 1). This was 24 percent higher than production in 1956, the previous postwar peak year. It was also 42 percent above the 231,709 thousand tons reported by the Bureau of the Census for 1958. The Bureau of the Census estimate of production was based upon reports from only 129 plants--less than half of the plants believed to have been producing charcoal. However, the plants not covered by the Bureau of the Census were largely small family operations with no hired employees. Such plants probably accounted for only a small part of total production.

Although charcoal production in 1961 was considerably above the levels prevailing in the 1950's, it was still substantially below output in the early 1900's when charcoal was widely used in the iron and chemical industries and for cooking and heating in slum areas,

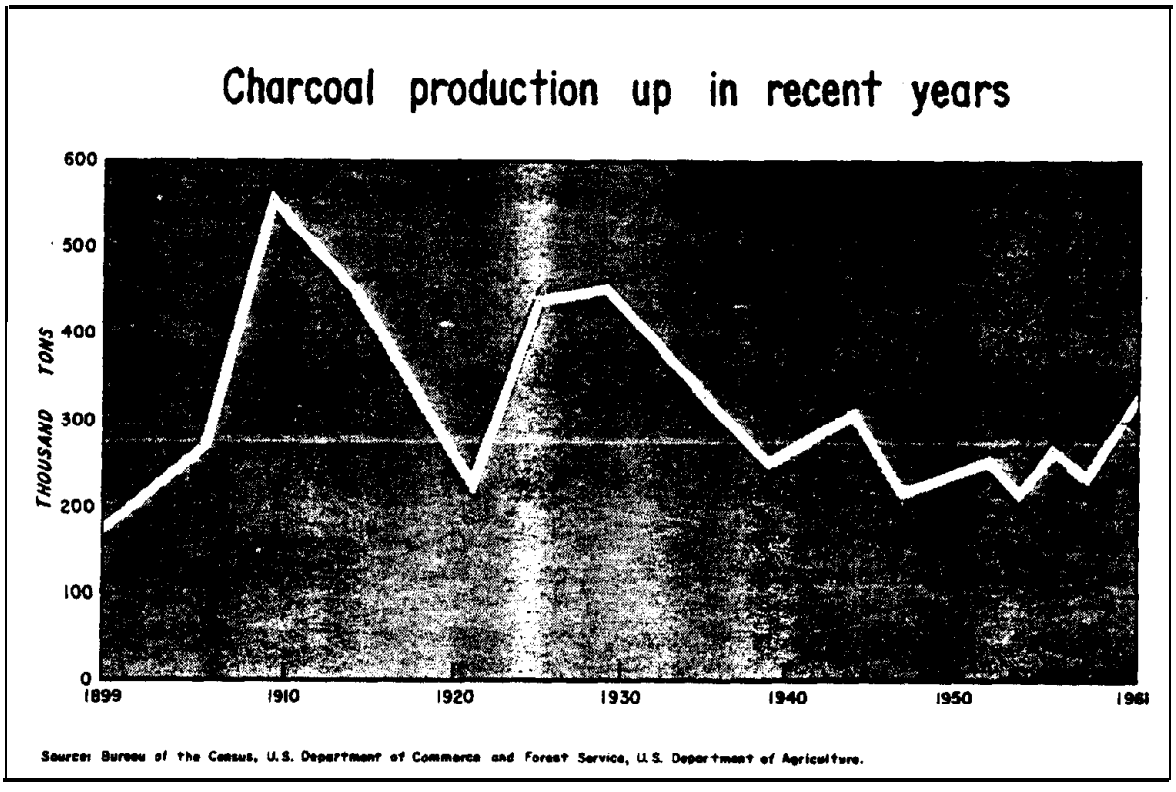


Figure 1

Domestic Producers Supply Nearly All Charcoal Needs

In 1961 about 10,090 tons of charcoal were imported into the United States, largely from Ceylon and Mexico (table 2). Exports, mostly to Canada, amounted to 4,748 tons. Net imports were thus 5,342 tons--a relatively small part of total U.S. needs.

98 Percent of Charcoal Production In the East

Charcoal production is concentrated in the East (table 3, fig. 2). In both 1956 and 1961, the plants located in this section produced 98 percent of all the charcoal manufactured.

In 1961 the Southern and Central regions with 29 percent and 26 percent, respectively, of total output were the two most important producing regions, In 1956, the Lake Region with 37 percent of total production and the Southern Region with 28 percent were the largest producing areas. Output increased in all regions, except the Lake Region, between 1956 and 1961. The rise was particularly rapid in the Central Region where production nearly tripled.

In 1961 there were 297 active charcoal producers--57 more than in 1956. As illustrated in the list of producers (page 17) and map 1, these were also concentrated in the East, although nearly 10 percent were in the West, mostly in California. The largest part of the increase in the number of charcoal producers between 1956 and 1961 was in the Southern and Central regions. A rather substantial decline occurred in the number of producers operating in the Northeast and in California.

Large Producers Account for Most of Charcoal Output

In 1961, 13 large producers, each producing more than 5,000 tons of charcoal, accounted for 56 percent of total production (table 4, fig. 3). At the other extreme, 126 producers, who produced less than a hundred tons each, accounted for only about 1 percent of total output. About 40 percent of these small plants were located in the Southern Region.

Nearly 2,000 Converting Units in Charcoal Plants in 1961

There were 1,977 converting units in charcoal plants in 1961 (table 5). These included 262 brick kilns, 805 concrete and masonry block kilns, 430 sheet steel (beehive type kilns) and 480 "other" units. The "other" units category includes retorts, ovens, and a wide variety of improvised chambers that have been adapted for charcoal production.

Ninety-four percent of all converting units were in the East. The Central Region with 595 units lead all others, followed by the Southeast Region with 444 and the Southern with 429.

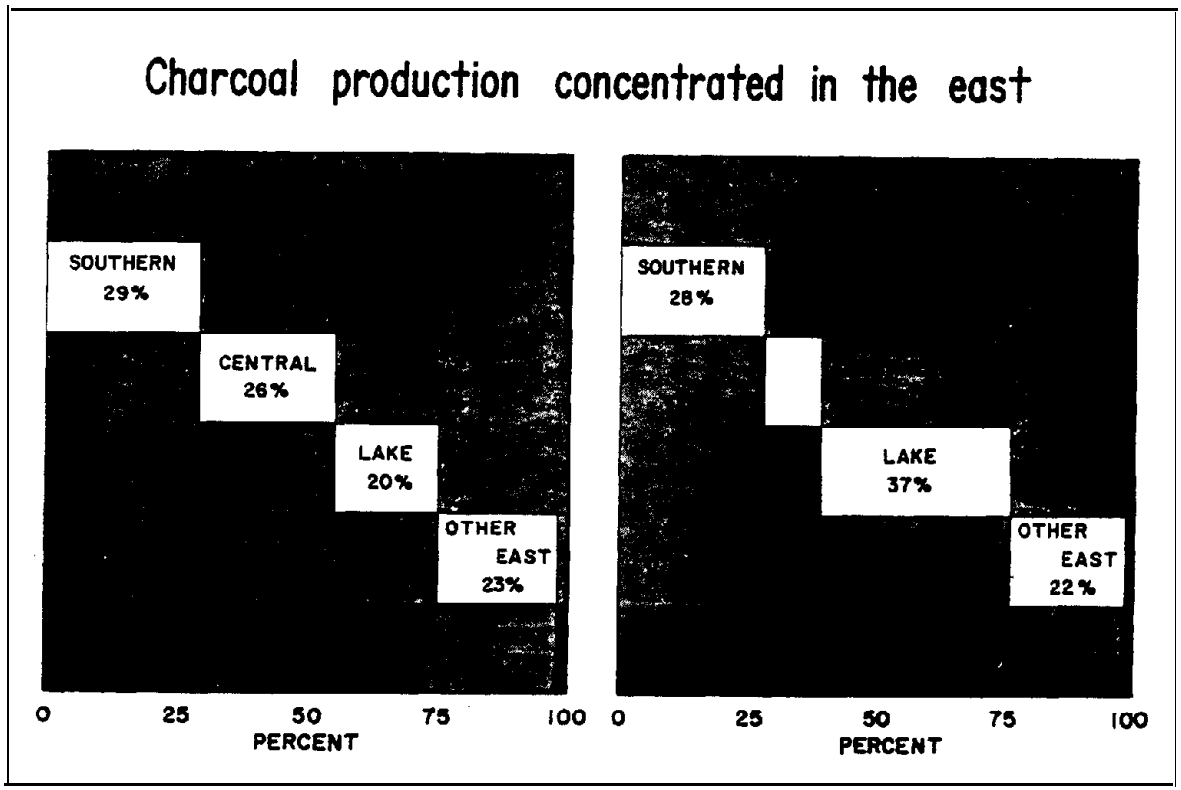


Figure 2

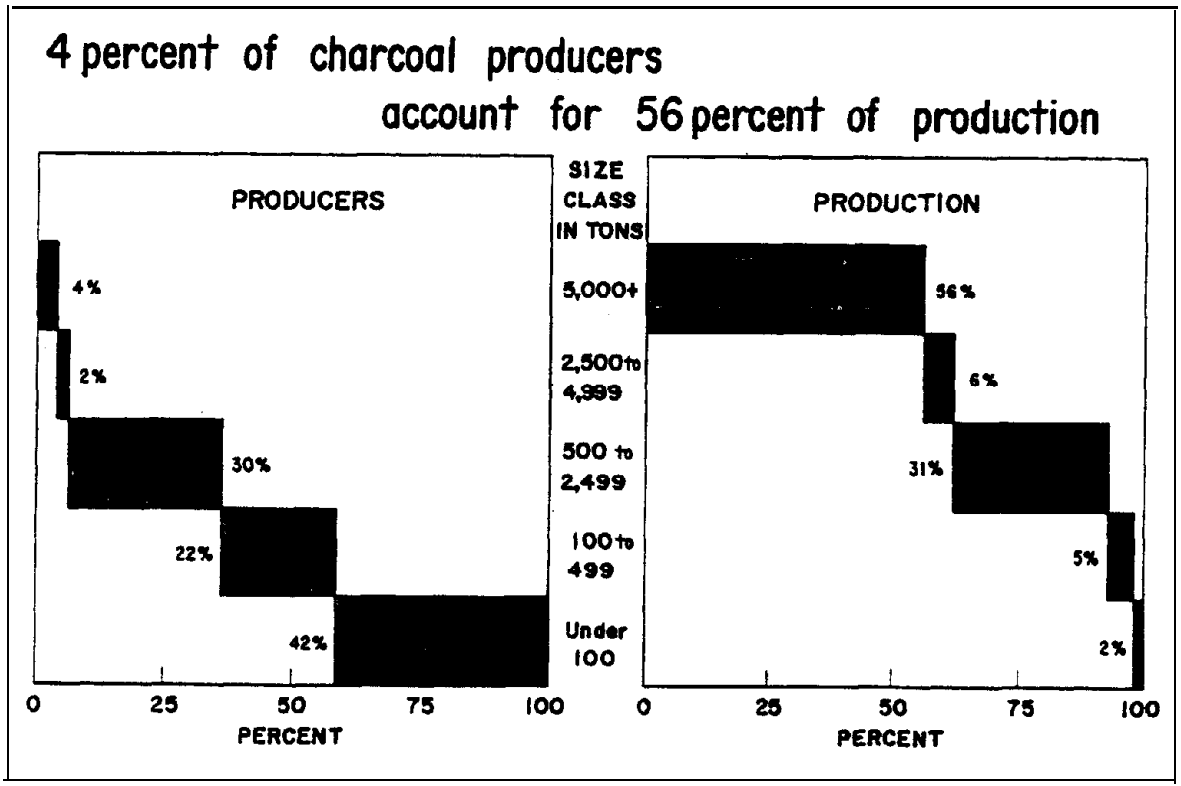


Figure 3

Large Amounts of Excess Capacity in All Regions

The potential annual capacity, i.e., the quantity of charcoal that could be produced in a 310-day operating year, of all converting units in 1961 was 795,920 tons (table 5). This was about 2.4 times production. Part of the excess capacity, however, is in small plants that are intended to operate only during the peak periods of demand in the summer or during the off season for other employment.

About 40 percent of total capacity was in the Southern Region. Another 5 percent of capacity was in the West. The remaining 55 percent was about equally distributed among the Northeast, Southeast, Lake and Central regions.

About 55 percent of total capacity was in the "other" unit category, mostly in retorts and ovens. Another 27 percent was in concrete and masonry block kilns, 12 percent in brick kilns, and 6 percent in steel kilns.

Potential capacity was much larger than production in all regions (fig. 4). There was, however, considerable variation among regions. In the Lake and Central regions production was about two thirds of potential capacity. In contrast, less than a third of the capacity in the Southern Region was utilized.

Most Charcoal Converting Units Are Small

Of the 1,977 converting units reported in 1961, 33 percent had a capacity of less than a ton of charcoal per carbonizing cycle. Another 26 percent had a capacity of from 1 to 5 tons, 36 percent from 6 to 25 tons, and 5 percent had a capacity more than 25 tons (table 6). Over half of all units with less than l-ton capacity were in the Southeast Region. Most of the large units (over 25 tons) were in the Southern and Central regions.

Over Half the Charcoal Sold by Charcoal Producers Goes to Briquetting Plants

Charcoal producers sold 177,360 tons of charcoal in 1961 (table 7, fig. 5). Of this total, 51 percent went to briquetting plants, 28 percent to jobbers, 18 percent to industrial users, and 3 percent to other miscellaneous purchasers.

Sales to briquetting plants were particularly large in the Central Region where they accounted for 64 percent of total sales. In the Northeast, on the other hand, nearly all of the charcoal sold went to jobbers and industrial users. Industrial sales, largely to chemical plants, were also important in the Southeast.

As illustrated in figure 5, sales to briquetting plants increased roughly 4 times between 1956 and 1961. In contrast, sales to industrial users were only about a third as high. Apparently charcoal is continuing to lose its metalurgical and chemical markets, with increased domestic use more than offsetting such losses.

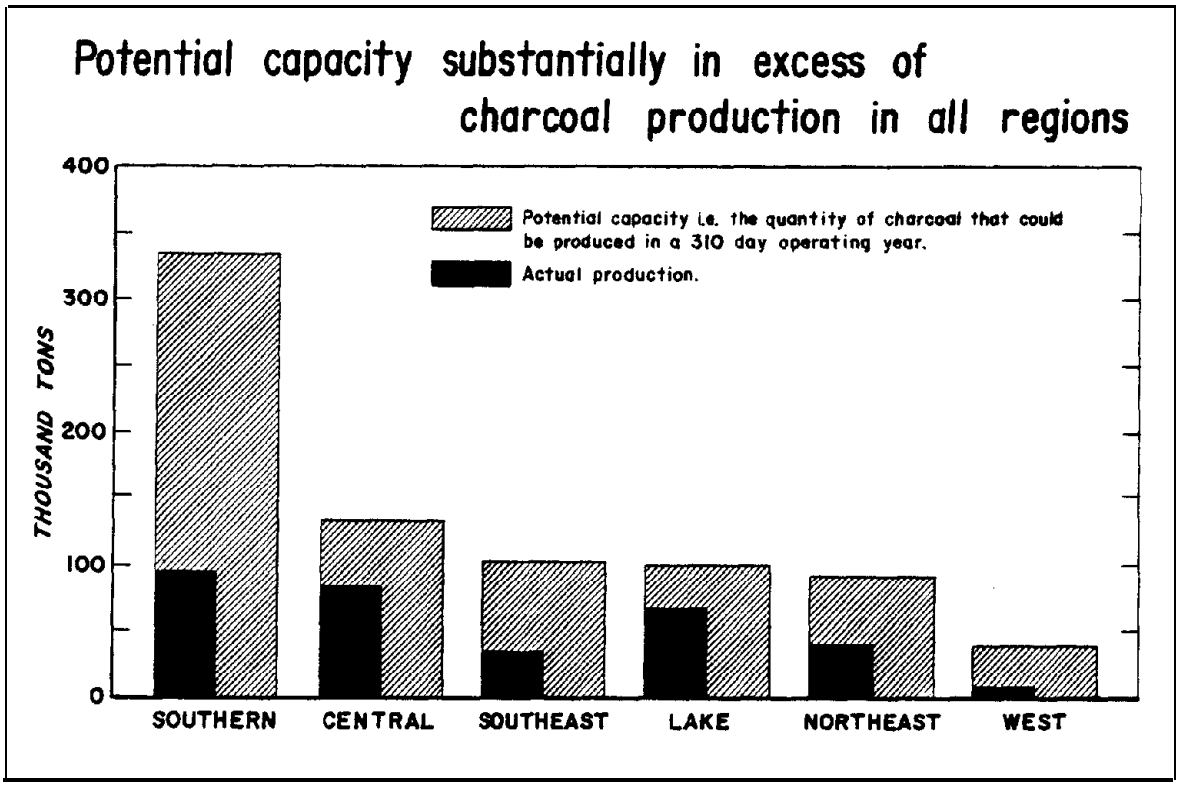


Figure 4

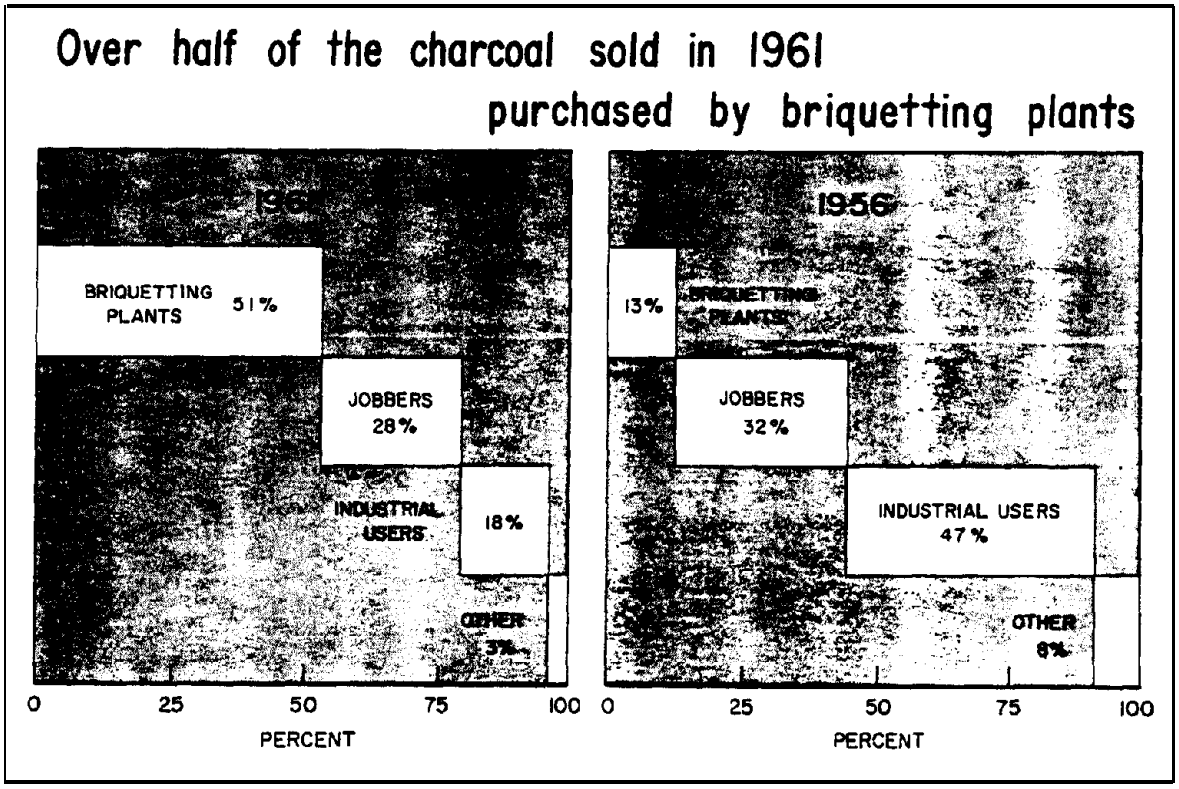


Figure 5

Wide Range in Selling Price of Charcoal

As indicated in the following tabulation, the average selling price of unscreened charcoal in 1961 ranged from a low of about $32 per ton in the Southeast to a high of $64 in the Northeast.

Region	Average price per ton
Northeast	$64
Southeast	32
Lake	40
Central	33
Southern	33
California	46

In most regions the selling price of screened lump was about $15 per ton higher than unscreened.

Because of handling, packaging, and other associated costs, the average selling price of packaged charcoal was considerably higher than that sold on a bulk basis. It ranged between a low of about 3 cents per pound ($60 per ton) in the Southeast and Central regions to 5.5 cents per pound ($110 per ton) in the Northeast.

No production costs were obtained in this survey. There were reports, however, that the industry was highly competitive and that the profit margins of some producers in certain areas were small. Large and medium-sized plants with efficient equipment and marketing organizations apparently had a competitive advantage over small plants.

Roundwood Composed Most of the Wood Consumed in Charcoal Plants in 1961

In 1961, about 509,000 cords of roundwood; the equivalent of 125,755 cords of slabs and edgings; and 13,650 cords of sawdust, shavings, and other fines; and 64,150 tons of pine stumps were consumed in charcoal plants (table 8).

Roundwood was used in all regions, with the heaviest use in the Central, Southern, and Lake regions. Slabs and edgings were utilized in all eastern regions. Pine stumps were used only in the Southeast.

Residues Cheaper than Roundwood

The average delivered price of roundwood in 1961 was $10.10 a cord--about 40 percent above the average of $7.30 for slabs and edgings and more than 5 times the average of $1.80 paid for sawdust, shavings and other fines (table 8).

Average delivered prices of both roundwood and slabs and edgings varied considerably among regions. The average for roundwood, for example, ranged from $6.60 per cord in the "Other West" to $13.20 in the Lake Region. The average delivered price of slabs and edgings ranged from $4.40 per cord in the Southeast to $8.90 in the Southern Region.

On the average, a little over 2 cords of wood are required to produce a ton of charcoal. Average wood costs per ton thus ranged from about $15.00 for slabs and edgings to more than $20.00 for roundwood. These costs represented a substantial part of the prices received per ton of charcoal sold in bulk.

235,640 Tons of Charcoal Briquettes Produced in 1961

In 1961, 50 plants produced 235,640 tons of charcoal briquettes (table 9, fig. 6). Forty-four of the plants and 97 percent of the production was in the East, largely in the Southern, Lake, and Central regions (see list of producers page 26 and map 2).

Jobbers Purchased Three Fifths of the Charcoal Briquettes Sold

Sales of charcoal briquettes were 232,090 tons in 1961 (table 10). of this total about 58 percent was sold to jobbers, 30 percent to chain stores, and 12 percent to other miscellaneous purchasers. Sales to jobbers were particularly large in the Southern and Lake regions.

There are no data on the consumption of charcoal briquettes by end use. Presumably, however, nearly all of the briquettes sold to jobbers and chain stores were consumed in domestic uses.

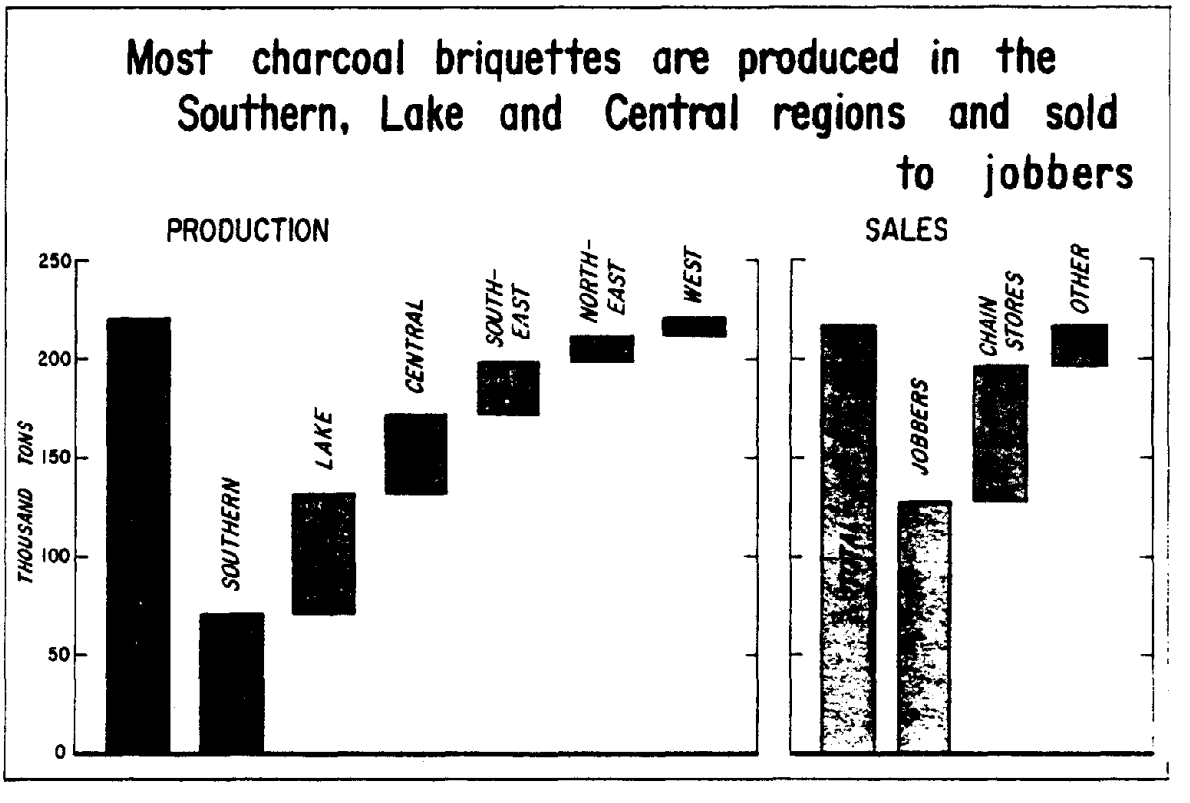


Figure 6

The weighted average selling price of charcoal briquettes sold in bags ranged from a low of about 4 cents per pound to a high of about 4.6 cents.

61 percent of the Charcoal Used in Briquetting Produced in Own Plant

Of the 226, 880 tons of charcoal used in briquetting in 1961, about 61 percent was produced in charcoal plants owned or controlled by the briquetting plant (table 11). The remaining 39 percent, some 88,610 tons, was purchased from independent producers. There was considerable variation in the sources of charcoal among regions. Most of the charcoal briquetted in the Northeast, Lake, and Southern regions was produced by the briquetting plant. On the other hand, most of the charcoal briquetted in the Central Region came from independent suppliers.

The average price paid for charcoal purchased from independent suppliers in the East ranged from' $34.40 per ton in the Southern Region to $41.70 per ton in the Lake Region. The average for the United States was $35.50.

21,000 Tons of Briquettes Produced From Nonwood Sources

There were four plants making briquettes from nonwood materials, such as lignite and agricultural residues, in 1961. These plants produced about 21,000. tons of briquettes. Total briquette production in the United States in 1961 thus amounted to 256,640 tons with charcoal briquettes produced from wood accounting for 92 percent of the total.

APPENDIX A

TABLE 1.--Charcoal production in the United States, selected years, 1899-1961

Year	Production	Year	Production
	Tons		Tons
1899	171,543	1939	250,780
1905	266,701	1944	306,192
1909	554,785	1947	213,660
1914	448,278	1952	251,784
1921	227,033	1954	214,481
1925	438,358	1955	237,770
1929	453,550	1956	264,990
1935	328,014	1958	231,709
		1961	328,000

Source : 1955, 1956, and 1961, Forest Service, U.S. Department of Agriculture. All other years Bureau of the Census, U.S. Department of Commerce.

TABLE 2. --Imports and exports of charcoal in the United States, 1952-61

Year	Imports	Exports
	Tons	Tons
1952	3,290	([1])
1953	3,328	([1])
1954	5,806	([1])
1955	6,521	21665
1956	13,522	([1])
1957	13,082	2,486
1958	7,202	2,380
1959	11,338	2,891
1960	11,471	4,038
1961	10,090	4,748

[1] Not available.

Source: Bureau of the Census, U. S. Department of Commerce. U. S. Imports of Merchandise for Consumption and U. S. Exports of Domstic and Foreign Merchandise. Annual reports.

TABLE 3. --Number of active producers and charcoal production in the United States, by region, 1956 and 1961

Region	1956		1961	
	Producers	Production	Reducers	Production
	Number	Tons	Number	Tons
Northeast	65	32,000	48	39,150
Southeast	46	26,890	45	34,570
Lake	12	96,830	15	67,120
Central	42	29,230	71	84,420
Southern	29	74,260	91	95,410
California	39	4,650	20	5,410
Other West	7	1,130	7	1,920
Total	240	264,990	297	328,000

Source ; Forest Service, U. S. Department of Agriculture.

TABLE 4. --Number of active producers and charcoal production in the United States, by production size class and region, 1961

Region	Total		Production size class									
			Under 100 tons		100 to 499 tons		500 to 2,499 tons		2,500 to 4,999 tons		5,000 tons and over	
	Producers	Production	Producers	Production	Producers	Production	Producers	Production	Producers	Production	Producers	Production
	Number	Tons	Number	Tons	Number	Tons	Number	Tons	Number	Tons	Number	Tons
Northeast	48	39,150	20	350	11	2,340	13	16,520	(1)	(1)	(1)	(1)
southeast	45	34,570	18	430	14	3,060	12	16,210	--	--	(1)	(1)
Lake	15	67,120	8	300	--	--	4	5,510	(1)	(1)	(1)	(1)
Central	71	84,420	13	570	22	8,240	30	33,940	(1)	(1)	4	34,670
Southern	91	95,410	51	2,270	10	2,160	25	24,170	(1)	(1)	4	63,310
California	20	5,410	13	530	5	1,650	(1)	(1)	--	--	--	--
Other West	7	1,920	3	90	(1)	(1)	(1)	(1)	--	--	--	--
Total	297	328,000	126	4,540	64	17,650	88	101,210	6	21,010	13	183,590

[1] Withheld to avoid disclosing figures for individual producers.

Source : Forest Service, U.S. Department of Agriculture.

TABLE 5. --Number of charcoal converting units and potential annual capacity[1] in the United States, by type of unit and region, 1961

Region	Total converting units		Brick		Concrete and masonry block		Steel (beehive)		Other	
	units	Potential capacity	Kilns	Potential capacity	Kilns	Potential capacity	Kilns	Potential capacity	units	Potential capacity
	Number	Tons	Number	Tons	Number	Tons	Number	Tons	Number	Tons
Northeast	294	91,310	36	17,580	50	12,700	165	20,880	43	40,150
Southeast	444	102,770	28	10,470	34	17,170	108	18,250	274	56,880
Lake	93	100,050	11	11,240	45	11,370	4	310	33	77,130
Central	595	131,260	102	33,080	350	90,020	129	5,560	14	2,600
Southern	429	332,930	50	13,010	264	68,540	13	3,450	102	247,930
California	103	22,650	21	6,560	62	14,190	11	970	9	930
Other West	19	14,950	14	4,460	--	--	--	--	5	10,490
Total	1,977	795,920	262	96,400	805	213,990	430	49,420	480	436,110

[1] Potential annual capacity is defined as the quantity of charcoal that could be produced in a 310-day operating year,

Source: Forest Service, U. S. Department of Agriculture.

TABLE 6. --Number of charcoal converting units in the United States, by size class and region, 1961

Region	Total. converting units	Size class (charcoal per carbonizing cycle)			
		Under 1 ton	1 to 5 tons	6 to 25 tons	Over 25 tons
	Number	Number	Number	Number	Number
Northeast.....	294	142	101	44	7
southeast.....	444	353	24	58	9
Lake.....	93	4	56	22	11
central.....	595	131	58	384	22
Southern.....	429	17	242	122	48
California	103	--	37	66	--
Other West.....	19	--	9	10	--
Total.....	1,977	647	527	706	97

Source : Forest Service, U.S. Department of Agriculture.

TABLE 7. --Charcoal sold in the United States, by type of purchaser and region. 1961

Region	Total	Type of purchaser						
		Jobbers	Industrial users				Briquetting plants	Other
			Total	Metal	Chemical	Other		
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Northeast..	20,450	9,830	8,840	3,900	3,580	1,360	1,260	520
Southeast..	22,470	510	11,400	3,690	7,710	--	10,430	130
Lake.....	12,180	3,860	1,400	210	1,170	20	6,910	10
Central....	74,550	10,980	5,830	3,620	310	1,900	57,660	80
Southern...	42,910	21,730	4,280	770	3,460	50	12,700	4,200
California.	3,980	2,950	--	--	--	--	750	280
Other West.	820	640	50	30	--	20	60	70
Total....	177,360	50,500	31,800	12,220	16,230	3,350	89,770	5,290

Source : Forest Service, U.S. Department of Agriculture.

TABLE 8.--Quantity and weighted average delivered price of wood materials consumed in charcoal production in the United States, by kind of material and region, 1961

Region	Roundwood		Slabs and edgings		Sawdust., shavings, and other fines		Pine stumps	
	Cords	Average price	Cords	Average price	cords	Average price	Tons	Average price
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
Northeast	34,750	11.90	22,995	8.20	--	--	--	--
Southeast	21,900	9.10	15,690	4.40	12,980	1.90	64,150	11.10
Lake	l31,180	l3.20	34,000	7.30	--	--	--	--
Central	172,520	7.10	20,930	6.00	--	--	--	--
Southern	l37,230	10.40	32,140	8.90	--	--	--	--
California	10,110	l3.10	--	--	--	--	--	--
Other West	1,310	6.60	--	--	670	.75	--	--
Total	509,000	10.10	125,755	7.30	13,650	1.80	64,150	11.10

Source: Forest Service, U.S. Department of Agriculture.

TABLE 9. --Number of active producers and charcoal briquette production in the United States, by region, 1961

Region	Producers	Production
	Number	Tons
Northeast	5	14,640
Southeast	8	25,870
Lake	4	61,090
Central	7	55,750
Southern	20	70,350
California	(1)	(1)
Other West	(1)	(1)
Total	50	235,640

[1] Withheld to avoid disclosing figures for individual producers.

Source: Forest Service, U.S. Depertment of Agriculture.

TABLE 10. --Charcoal briquettes sold in the United States, by type of purchaser and region, 1961

Region	Total	Jobbers	Chain stores	Other
	Tons	Tons	Tons	Tons
Northeast	13,710	7,400	3,840	2,470
Southeast	60,880	7,800	13,490	3,340
Lake	24,630	40,890	15,960	4,030
Central	55,030	23,660	18,160	13,210
Southern	69,980	48,680	17,240	4,060
California	3,660	3,110	50	500
Other West	4,200	4,200	--	--
Total	232,090	135,740	68,740	27,610

Source: Forest Service, U.S. Department of Agriculture.

TABLE 11. --Source of charcoal used in briquetting plants, and weighted average delivered price of charcoal purchased in the United States, by region, 1961

Region	Source of charcoal used in briquetting			Average price per ton of charcoal purchased from other suppliers
	Total	Produced in own plant	Purchased from other suppliers	
	Tons	Tons	Tons	Dollars
Northeast	14,700	12,500	2,200	40.50
Southeast	23,520	10,180	13,340	34.60
Lake	57,900	50,870	7,030	41.70
Central	53,420	1,430	51,990	34.50
Southern	68,830	58,990	9,840	34.40
California	4,310	1,200	3,110	44.00
Other West	4,200	3,100	1,100	32.00
Total	226,880	138,270	88,610	35.50

Source: Forest Service, U.S. Department of Agriculture.

APPENDIX B

CHARCOAL PRODUCERS IN THE UNITED STATES, 1961

(This list may not include all producers and is subject to change as plants are sold or moved and as new plants are constructed).

State, name, and producer No.	Post office address[1]
NORTHEAST	
Connecticut:	
1. Connecticut Charcoal Co., The	P. O. Box 195, Stafford Springs (Union)
2. Connecticut State Park & Forest Commission	650 Main Street, Hartford (Cobalt)
3. Dondero, Marco	P. O. Box 103, Haddam
4. Hadfield, Myron	R. D., Moosup (Sterling)
5. Oslander, August J.	Durham Road, Madison
6. Park, B. Ripley[2]	North Stonington
7. White Memorial Foundation, The[3]	Litchfield
Maine:	
8. Amherst Lumber Co.[3]	Amherst
9. Biron, Sylva[3]	West Paris
10. Gilley, M. H. Sr. & Son	Coopers Mills
Maryland:	
11. Eastern Shore Wood Products Co.[3]	Box 97, Princess Anne
12. Eppler Wood Products Corp.	P. O. Box 12, Dorsey
13. Maryland Department of Forests & Parks	State Office Building, Annapolis (Brandywine)
Massachusetts:	
14. Ambler Lumber Co.	Box 93, Bellingham
15. Curtis Lumber Co.[3]	Old Princeton Road, Hubbardston
16. Howard Bros. Charcoal Co.	Star Route, Montague (North Leverette)
17. New England Carbon Co., Inc.	P. O. Box 188, Pittsfield (Hancock)
New Hampshire:	
18. Fenton, Paul J., Jr.[3]	R.D. #1, Andover
19. Frink, Richard S.[3]	R.D. #1, Goffstown (Dunbarton)
20. Kimball, Donald S.[3]	Thousand Acres, West Franklin
21. New England Forest Industries, Inc.[3]	3 N. State Street, Concord (Boscawen)
22. New Hampshire Forestry & Recreation Commission	Concord (Allenstown)
23. White Mountain Charcoal Co.	West Rumney
New Jersey:	
24. Payne, Herbert W. & Sons	Box 57, Lacey Road, Whiting

See footnotes page 25.

State, name, and producer No.	Post office address[1]
NORTHEAST (continued)	
New York:	
25. B & C Charcoal Co.	Peck Hill Road, South Ostelic
26. Chiloway Charcoal, Inc.	Roscoe (Horton)
27. Duell, A. C. & Sons[3]	R.D. #l, Oswego
28. East Walden Charcoal Co.[3]	East Walden
29. Emerson Fuel Co., Inc.	545 Lyell Avenue, McConnellsville
30. Flower City Charcoal Co	135 Calvin Street, Rochester 11
31. Glowell Charcoal	Hampton Road, Marlboro (West Marlboro)
32. Heartwood Products Co.	Box HH, Tupper Lake
33. Hutton, William[3]	Booneville (McKeever)
34. Keil Charcoal Co., Inc.	135-149 Colvin Street, Rochester 11 (Dolgeville)
35. Northeastern Products Co.[3]	Warrensburg
36. Potsdam Charcoal Co., Inc.	Box 87, Potsdam
37. Reynolds Lumber Co	Wells
38. Slawson Lumber Co., Inc	Hunt
39. Smiley Bros.[3]	Mohonk Lake
40. Thomas, Fenimore	Star Route #2, Oswego
41. Timberland Products Co., Inc.	Stamford
42. Weinheimer, Arthur J.	R.D. #1, Old Chatham
43. Wicks, Verne A.	Harrisville
Pennsylvania:	
44. Bradford Wood Products Co.	Box 194, Bradford (Marvindale)
45. Cedar Ledge Charcoal, Inc.	R.D. #2, Canton
46. Charcoal Products Co.	75 Woodlawn Drive, Dallas
47. Cologie, Ronald T.[3]	c/o E. Greenfield, Greeley
48. Humphrey Charcoal Corp.[2]	P. O. Box 45. Brookville (Fort Barnett)
49. Indian Hill Charcoal Co.[2]	Laceyville
50. Kohl, Elmer	R.D. #1, Bowmansville
51. Otto Chemical Co	Sergeant
52. Susquehanna Chemical Corp	Box 176, Bradford (Custer City)
53. Valley Chemical Co.	Morris
54. Wyman Chemical Co	P. O. Box 194, Bradford(PortAllegany)
Rhode Island:	
55. Hall, Edwin N.[3]	R.D. #1, Foster
56. James Peckham Charcoal	R.D. #2, Snake Hill Road, North Scituate (Foster)
57. Miner, Layton H. & Sons	R.D. #2, Westerly
58. Wisniewski, Stephen A.[3]	119 S. Main Street, Moosup (Foster)
West Virginia:	
59. Bland, D.E. & Sons	Thomas
60. E. C. Grimm Lumber Mfg. Co.	Terra Alta
61. Hardwood Products.	Marlinton
62. Hughes Smokeless Co.	#1 Broadway, N. Y., N. Y. (Belington)
63. Kingsford Chemical Co.	Parsons
64. Roseville Charcoal & Mfg. Co.[2]	Box 1188, Zanesville, Ohio (Bentree and Swiss)
65. Sanders, Roy K., & Sons[3]	Rowlesburg (Macomber)
66. Smith Lumber Co	Livingston Avenue, Elkins (Macomber)

See footnotes page 25.

State, name, and producer No.	Post office address[1]
SOUTHEAST	
Florida:	
67. Black Diamond Charcoal	Bayard
68. Industrial Carbon Division, Cabot Corp.[2]	P. O. Box 137, Gainesville
69. Pioneer Charcoal Co.[2]	Box 777, Dunnellon
70. Southern Pine Extract Co.	Cross City
Georgia:	
71. Griffin, Marion	122 Walker, Augusta
72. Moore, Arthur	Horton Drive, Augusta
73. Rome Charcoal Co., Inc.[2]	P. O. Box 2233, W. 14th Street, Rome
North Carolina:	
74. Alexander, Robert	Black Mountain
75. Bladen Lakes State Forest	Elizabethtown
76. Blue Ridge Charcoal	c/o Lat Westall, R.D., Spruce Pine
77. Boger, Nelson	Graham
78. Bordeaux, William	Garland
79. Cody, Clyde	Carthage
80. Gallimore, A. A.	1120 Graham Street, Burlington
81. Gallimore, Ernest	Box 185, Denton
82. Howell, George	Route #2, Cherryville
83. Howell, John F.	Route #1, Cherryville
84. McIntyre, J. C. & R. L.	R.D., Old Fort
85. Nall, L. W.	Carthage
86. Peterson & Pittman	Route #1, Bakersville
87. Roach, Arthur R.	Troy
88. Roberts, Roy	Walnut
89. Rome Charcoal Corp.	Colon
90. Spruce Pine Charcoal	R.D., Spruce Pine
91. Virginia-Carolina Lumber Corp.	Box 616, Warrenton
92. Wall, Auburn	Carthage
93. Williamston Charcoal Co.	Box 586, Williamston
94. Williford, J. A.	Route #3, Windsor
95. Yaw, E. O.	Seagrove
South Carolina:	
96. Dargan Lumber Mfg. Co.	Conway
97. Geiger, Hayward	Route #1, Box 72 B, Irmo
98. T. S. Ragsdale Co., Inc.[2]	P. O. Box 38, Lake City
Virginia:	
99. Big "M" Charcoal Co.	Box 106, Farmville
100. Larus & Bros. Co., Inc.[2]	22nd & Cary Streets, Richmond
101. Long Bros.	Branchville
102. Moody, Lewis W.	301 High Street, South Hill
103. Northside Lumber Co., Inc.	P. O. Drawer CF, Williamsburg
104. P. R. McGuire Lumber Co.	Wylliesburg
105. R. K. Lafoon Charcoal Co.	Kenbridge
106. Roberts, A. F.	Kenbridge
107. Rudder, R. O., Jr.	Brookneal
108. Saluda Lumber Co.	P. O. Box 205, Saluda
109. Seward Lumber Co., Inc.	Box 33, Clarement
110. Smith, Willie	Route #4, Salem
111. Virginia Briquet Co., Inc.	Woodford

See footnotes, page 25.

State, name, and producer No.	Post office address[1]
LAKE	
Michigan:	
112. Cliffs Dow Chemical Co.[2]	Wright Street, Marquette
113. Duke Tree Farms	Route # 1, Manistique
114. Kingsford Chemical Co.[2]	Iron Mountain (Kingsford)
Minnesota:	
115. Benson, Wallace	Isle
116. Halgrimson, Albert	Route # 1, Palisade
117. Rum River Charcoal Co.[2]	Isanti
118. West Alaska Mill	Leonard
Wisconsin:	
119. Badger State Charcoal Co.	P. O. Box 281, Black River Falls
120. Boerner Charcoal Plant	Route #2, Wisconsin Dells (Adams)
121. Durand Charcoal Co., Inc	Durand
122. Gersmehl, Edward A.	916 N. 7th Street, Sheboygan
123. Grotenhuis Bros.	Cedar Grove
124. Harrisville Charcoal Co.	Westfield
125. Surbaugh, John	Star Route, Frederic
126. Van Ert Forest Products	Route #2, Wisconsin Dells
CENTRAL	
Illinois:	
127. Ace Charcoal Producers, Inc.	4548 Shaw Avenue, St. Louis, MO. (Campbell Hill)
128. B. E. Moses Charcoal Co.	Route #1, Cypress (Oberta Switch)
129. Berger Bros., Inc.	1176 N. Cherry Avenue, Chicago (Belknap)
130. Metcalf Charcoal Co	Mt. Vernon
131. Murphysboro Charcoal Co	P. O. Box 453, Murphysboro
132. Rock River Sawmill	E. Main Street, Rockton
133. Scheck, Joe	Route #3, Princeton (DePue)
134. Timberland Charcoal Co	Route #7, Mulford Road, Rockford (Boone Co.)
Indiana:	
135. Hope Lumber Co	P. O. Box 21, Hope
Kentucky:	
136. Kingsford Co	P. O. Box 1033, Louisville (Haldeman & Haywood)
137. West Kentucky Charcoal Co.	Route #1, LaCenter (Bandana)
Missouri:	
138. Allied Charcoal Co.	Lesterville
139. Barnhart Charcoal Co.	Meta
140. Berhorst, Ben	Freeburg
141. Black River Charcoal Co.	Lesterville
142. Carty, Earl[4]	Salem

See footnotes page 25.

State, name, and producer No.	Post office address[1]
CENTRAL (continued)	
Missouri (con't.):	
143. C. E. Jenkins Coal & Charcoal Co.	318 E. Miller Street, Jefferson City (Centertown)
144. Cobb-Eiceman Products Co	Zalma
145. Copeland Charcoal Co	Reynolds
146. Craig Charcoal Co.	Summersville
147. Cupples Co.[2]	7800 Bonhomme, St. Louis (Salem)
148. Dailey & Robertson Charcoal Co.	Winona
149. Day, R. C.	Bradleyville
150. Fordell Development Co., Inc.	Wesco (Cooks Station)
151. Gainesville Charcoal Co	c/o J. R. Evans, Gainesville
152. Greer Spring Co	20 Brentmoor, St. Louis (Alton)
153. Hardwood Charcoal Co.[4]	Steeleville
154. Hellmuth, George[4]	Round Spring
155. Henley Charcoal Co	Meta (Henley)
156. H&F Charcoal Co	Salem
157. Hobson Charcoal Co.[4]	Salem
158. Huffman, Alva[4]	Rolla
159. Iberia Charcoal Co	Meta (Iberia)
160. James & Terry Charcoal Co.	Vienna
161. J&M Charcoal Co	Meta
162. Kingsford Co.[2]	P. O. Box 1033, Louisville, Ky. (High Gate)
163. Langworthy Charcoal Co.	320 Orchard Street, Salem
164. Lennox Charcoal Co.	Hobson Star Route, Rolla
165. Luecke Charcoal Co.	Rich Fountain (Westphalia)
166. Mackie, Roy A.[4]	Salem
167. McDonald Charcoal Co.	Dwight Bldg., Kansas City (Argyle)
168. Meadows, Clifford	Branson
169. Morlen, Ray	P. O. Box 37, Ellsinore
170. Neosho Charcoal Products Co.	Route #4, Neosho
171. Noblett, Gene	Belle (Koenig)
172. P&C Charcoal Co	Meta
173. Parry Charcoal Co.	Box 134, St. James
174. Pringle Charcoal Co.	Route #1, Greenfield
175. Ridenhour Charcoal Co.	Belle
176. Ripka Charcoal Co	Meta
177. Royal Oak Charcoal Co.	Route #2, Birchtree (Montier)
178. Skaggs, M. B.	Kirbyville
179. S&S Charcoal Co	Box 151, Branson (Bradleyville)
180. Stegeman Charcoal Co.	Route #3, Jefferson City (Schubert)
181. Stockton, W. B.	Belle
182. Sugar Creek Charcoal Co.	Meta
183. Tarvid Charcoal Co	Centerville (Corridon)
184. Timber Charcoal Co.	Gladden (Timber)
185. Timber Products, Inc.	Oakland Star Route, Lebanon
186. Trumac Charcoal Co.	Vienna (Lecoma)
187. Wallace, Aude	Longrun
188. Weed, D. J	Argyle
189. Werdehaus Charcoal Co.	Box 157, Owensville
190. Wieburg Charcoal Co.	Freeburg (Salem)
191. Wulff Charcoal Co	Vienna (Licking)

See footnotes page 25.

State, name, and producer No.	Post office address [1]

CENTRAL (continued)

Ohio	
192. Cherokee Charcoal Co.	P. O. Box 266, Oak Hill
193. Magic Star Charcoal Co.[2]	P. O. Box 14, New Lexington
194. Ohio Valley Charcoal	1223 N. Columbus Street, Lancaster (Nelsonville)
195. Roseville Charcoal & Mfg.	P. O. Box 1188, Zanesville (Byesville)
196. Tri-State Charcoal Co	Route #3, Oak Hill
197. Victory Charcoal Co.	Box 116, Oak Hill

SOUTHERN

Alabama:	
198. Bazzell, M. C.	Route #2, Box 440, Deatsville
199. Bentley, John L.	BOX 133, Rockford
200. Boggs, Alvin	Route #2, Delta
201. Coosa Charcoal Co., Inc.[2]	P. O. Box 73, Rockford
202. Fancher, Wiley[2]	Route #1, Sardis
203. W. A. Belcher Lumber Co	Box 1831, Birmingham (Simmsville)
204. Wakefield Products Co	Russellville (Fairview)
Arkansas:	
205. Arkansas Charcoal Co.[2]	Paris
206. Baron Charcoal Co.[2]	Route #2, Vian, Okla. (Gentry)
207. Bruner Ivory Handle Co	P. O. Box 38, Hope
208. Bull Mt. Charcoal Enterprise	Route A, Flippin
209. Crosset Chemical Co.[2]	P. O. Box 271, Crossett
210. Hickory Ridge Charcoal	P. O. Box 16, Kingston
211. K-V Charcoal Co., Inc.	P. O. Box 26, Lewisville
212. Martin, Ray & Son	Mountain Home
213. Ozark Charcoal Co.	Ozark
214. Ozark Enterprise Charcoal	Gassville
215. Polk County Enterprises, Inc.	Mena (Hatfield)
216. Promised Land Charcoal Co.	Route #1, Mountain Home
217. Tac Enterprises, Inc.	Mountain Home (Oakland)
Louisiana:	
218. Home Charcoal Co., Inc.[2 4]	P. O. Box 814, Alexandria
Mississippi:	
219. Attala Land & Wood Products Co.	Kosciusko
220. Black Creek Charcoal Co.[2]	Route #5, Lexington
221. Blackjack Charcoal Co.	P. O. Box 344, Bruce
222. Dixie Farms	Satartia
223. Dizzy Dean Enterprises, Inc.[2 5]	Pachuta
224. Eaton & Clark	Box 84, Taylorsville
225. Prince Lumber Co	Shugulak
Oklahoma :	
226. Alabama Charcoal Co.	Route #2, Westville (Baron)
227. Carter Charcoal & Carbon Co.	Box 269, Coalgate (Village of Phillips)
228. Conley, Floyd	Box 411, Marble City
229. Flying 13 Ranch	Vian
230. Kirkland, O. D	Route #2, Coalgate
231. Robertson, Eli	Route #1. Gore

See footnotes page 25.

State, name, and producer No.	Post office address[1]
SOUTHERN (continued)	
Oklahoma (con't.):	
232. Transit Corp	1516 Liberty Bank Bldg. Oklahoma City (Sallisaw)
233. Western Barbecue Supply Co., Inc.[2]	Box 111, Sallisaw
Tennessee:	
234. Anderson, Paul	Box 537, Jamestown
235. Baker, Delbert	Spencer
236. Bouldin, Noble	Spencer
237. Bowman, Leslie	Route #3, Monterey
238. Brock, Lewis	Mountain Route, Spencer
239. Brown, Carson	Route #5, Crossville (Linary)
240. Forest Products Chemical Co.[2]	Box 6745, Hollywood Station, 2753 Chelsea Avenue, Memphis
241. Garrison, V. D.	Route #1, Crossville
242. Geer, Luther	Mountain Route, Spencer
243. Green, William	Route #1, Bloomington Springs
244. Harp, Charlie	Route #6, Cookeville
245. Hassler, Virgil	Route #5, Crossville
246. Hedgecough, Orb	Route #2, Baxter (Nash Community)
247. Hicks, Horace	Route #1, Clarkrange
248. Houston, John	Route #5, Box 233, Crossville (Binary)
249. Jack Daniel Distributors..	Lynchburg
250. Karch, Al	102 Hoyt Street, Monterey (Cliff Springs)
251. Kerley, Albert	Route #5, Crossville
252. Kerley, Carl	Route #5, Crossville
253. Kerr, W. F.	Spencer
254. Lewis, Herman [2 5]	3813 Nathaniel Road, Knoxville (Huntsville)
255. Looper, Austin	Route #3, Monterey
256. Looper, Homer	Monterey
257. Martin, Elmer	Mountain Route, Spencer
258. Mitchell's Charcoal Co.	Route #5, Cookeville
259. Mooneyham, David	Route #1, Spencer
260. Morgan, Gene	Monterey
261. Nash, Armon	Route #2, Baxter
262. Orurstrect, Willard	Monterey
263. Prater, Denton	Route #7, Sparta
264. Reed, Culbert	Route #1, Box 118, Crawford
265. Rittenberry, John	Route #1, Cookeville
266. Romines, Dolphus	Route #6, Cookeville
267. Scott, William	Spencer
268. Simmons, Arthur	Route #1, Spencer
269. Smith, Robert	Route #1, Clarkrange
270. Smith, W. A.	Route #5, Box 386, Crossville (Stephens Gap)
271. Sullivan, Alton	Spencer
272. Swallows, Kernel	Route #3, Monterey
273. Tennessee Handle Co.	Cookeville
274. Tennessee Products & Chemical Corp.[2]	2611, West End Avenue Nashville, (Lyles- Wrigley)
275. Tinch, M. T.	Mayland
276. Walleer, Edward	Route #5, Crossville
277. Walker, James	Route #5, Crossville (Linary)
278. Whitaker, Charles J.	Route #3, Monterey

See footnotes page 25.

State, name, and producer No.	Post office address[1]
SOUTHERN (continued)	
Texas:	
279. B. & B. Charcoal Co.	P. O. Box 314, Flatonia
280. Campfire Charcoal Co., Inc.[2]	Navasota
281. Craven, Wallace	Route #1, Box 175, Roanoke
282. Forest Research Co.[2]	3810 Westheimer Road, Houston (College Station)
283. Lone Star Charcoal Co.[2]	P. O. Box 546, Quitman
284. Lone Star Charko[6]	P. O. Box 1551, Wells
285. McCombs Charcoal Co.	Pittsburg (Dukes Chapel Road)
286. Moore Charcoal Co.[2]	Route #10, Box 120, Tyler
287. National Charcoal Co.	P. O. Box 4123, San Antonio (Muldoon)
288. Smith, Derwood[6]	P. O. Box 1077, Wells
OTHER WEST	
Arizona:	
289. Charkete Products Co.	Redington
290. Tucson Tallow Co.[3]	2938 N. Fairview Road, Tucson
Kansas:	
291. Chetopa Charcoal Co.[2]	Chetopa
292. Jayhawk Charcoal Co.[2]	Chetopa
Montana:	
293. Big Bear, Inc.[2]	Pablo
Oregon:	
294. Jigg's Charcoal Co.	Route #1, Cave Junction
Utah:	
295. D. & C. Charcoal Co.	P. O. BOX 727, Cedar City
296. Pyrmid Charcoal Briquette Co.[3]	Cedar City
Washington:	
297. Elbe Charcoal	Box 334, Elbe
298. King County Charcoal, Inc.[3]	P. O. Box 524, Auburn
CALIFORNIA	
California:	
299. Alvarez, Frank	Route #1, Box 155, Atascadero
300. Bar-B-Glo Co	Tulare (Springfield)
301. Bergman, Louis	R.D. #1, Box 88, Paso Robles
302. Bidstrup, Walter	Eldorado
303. Busi, Jim	R.D. Box 173, Templeton
304. Calaveras Firewood Corp.	Box 356, Murphys (Bear Mtn. Ranch)
305. California Charcoal Products	1121 National Avenue, National City (Santa Ysabel)
306. Chaides, Frank	1523 Pine Street, Paso Robles (Adelaide District)
307. Dunham, Marion and Charles Ritchie.	Route #1, Box 198, Templeton (Dover Canyon)
308. Flores, Juan C.	1109 Limekiln Road, Hollister
309. Fort Seward Hardwood Mfg. Co.[2]	Box 80, Fort Seward

See footnotes page 25.

State, name, and producer	Post office address[1]
CALIFORNIA (continued)	
California (con't.):	
310. Gates, Leroy	R.D. Route #1, Box 187, Templeton
311. Griswold, A. O. & Son	Route #2, Box 255, Springville
312. Galbreath, O. W.	Corbett Canyon Road, Arroyo Grande
313. Glenbrook Charcoal	Route #1, Box 196, Templeton (York Mtn. Road)
314. Guerero, Jose	Santa Margarita
315. Linder, Reynold	100 Oakmore, Tulare (Yokohl Valley)
316. Maduena, Juan	2630, Riverside Avenue, Paso Robles
317. McGee & Son	Star Route, Orosi
318. Walker, Everett E.	Route #1, Box 197-B, Paso Robles

[1]Towns in parenthesis show plant location.
[2]Manufactures briquettes.
[3]Idle in 1961.
[4]Did not report 1961 production.
[5]New in 1962.
[6]Plant operated in 1961, but individual plant data unavailable.

BRIQUETTE PRODUCERS IN THE UNITED STATES, 1961

(This list may not include all producers and is subject to change as plants are sold or moved and as new plants are constructed.)

State, name, and producer No.	Post office address[1]
NORTHEAST	
Connecticut:	
1. Park, B. Ripley	North Stonington
Maine:	
2. Jaeger Co.	P. O. Box 429, 56 Sweden Street Caribou (Fort Kent)
Pennsylvania:	
3. Humphrey Charcoal Corp.	P. O. Box 45, Brookville (Fort Barnett)
4. Indian Hill Charcoal Co.	Laceyville
West Virginia:	
5. Roseville Charcoal & Mfg. Co.	Box 1188, Zanesville, Ohio (Bentree and Swiss)
SOUTHEAST	
Florida:	
6. Industrial Carbon Division, Cabot Corp.	P. O. Box 137, Gainesville
7. Pioneer Charcoal Co.	Box 777, Dunnellon
Georgia:	
8. Rome Charcoal Co., Inc.	P. O. Box 2233, W. 14th Street, Rome
North Carolina:	
9. Black Panther Insecticide Co	Box 690, Bragg Street, Sanford
10. Standard Milling Co.	Riverside Drive, Asheville
South Carolina:	
11. T. S. Ragsdale Co., Inc.	P. O. Box 38, Lake City
Virginia:	
12. Imperial Briquet Corp	Kenbridge
13. Larus & Bros. Co., Inc	22nd & Cary Streets, Richmond
LAKE	
Michigan:	
14. Cliffs Dow Chemical Co.	Wright Street, Marquette
15. Kingsford Chemical Co.	Iron Mountain (Kingsford)
Minnesota:	
16. Rum River Charcoal Co.	Isanti
Wisconsin:	
17. Berwind Fuel Co	Box 173, Waupaca

See footnotes page 28.

State, name, and producer No.	Post office address[1]
CENTRAL	
Missouri:	
18. Cupples Co	7800 Bohomme, St. Louis (Salem)
19. Galena Charcoal Products, Co.	Galena
20. Keeter Charcoal Co., Inc	Box 653, Branson
21. Kingsford Co.	P. O. Box 1033, Louisville, Ky. (Belle)
22. Osage Charcoal & Chemical Co., Inc. . .	400 E. Carrie Street, St. Louis (Meta)
23. Standard Milling Co., Charcoal Fuel Division	Kansas City (Meta)
Ohio:	
24. Magic Star Charcoal Co.	P. O. Box 14, New Lexington
SOUTHERN	
Alabama :	
25. Coosa Charcoal Co., Inc.	P. O. Box 73, Rockford
26. Fancher, Wiley.....	Route #1, Sardis
Arkansas :	
27. Arkansas Charcoal Co.....	Paris
28. Baron Charcoal Co.....	Route #2, Vian, Okla. (Gentry)
29. Crossett Chemical Co.....	P. O. Box 271, Crossett
Louisiana:	
30. Home Charcoal Co., Inc.	P. O. Box 814, Alexandria
Mississippi:	
31. Black Creek Charcoal Co.	Route #5, Lexington
32. Dizzy Dean Enterprises, Inc.[2]	Pachuta
Oklahoma :	
33. Western Barbecue Supply Co., Inc.	Box 111, Sallisaw
Tennessee:	
34. Forest Products Chemical Co.....	Box 6745, Hollywood Station, 2753 Chelsea Avenue, Memphis
35. Hickory Charcoal Co., Inc.[2]	2519 Cherry, NE, Knoxville
36. Lewis, Herman.....	3813 Nathanial Road, Knoxville (Huntsville)
37. Plateau, Inc.....	P. O. Box 441, Cookeville
38. Tennessee Products and Chemical Corp.	2611 West End Avenue, Nashville (Lyles- Wrigley)
Texas:	
39. Campfire Charcoal Co., Inc.....	Navasota
40. Forest Research Co.....	3810 Westheimer Road, Houston (College Station)
41. Goebel Charcoal Co.	111- 113 W. 2nd Street, Smithville (Muldoon)
42. Lone Star Charcoal Co.	P. O. Box 546, Quitman
43. Moore Charcoal Co	Route #10, Box 120, Tyler
44. Patio Party Products, Inc.	P. O. Box 142, Marshall

See footnotes page 28.

State, name, and producer No.	Post office address[1]
OTHER WEST	
Kansas:	
45. Chetopa Charcoal Co.....	Chetopa
46. Jayhawk Charcoal Co.....	Chetopa
Montana :	
47. Big Bear, Inc.	Pablo
Washington:	
48. Western Charcoal Corp.	2423 1st Street, Seattle (Renton)
CALIFORNIA	
California:	
49. Charcoal Industries.....	P. O. Box 182, Paso Robles (Adalaide Road)
50. Fort Seward Hardwood Mfg. Co.	Box 80, Fort Seward

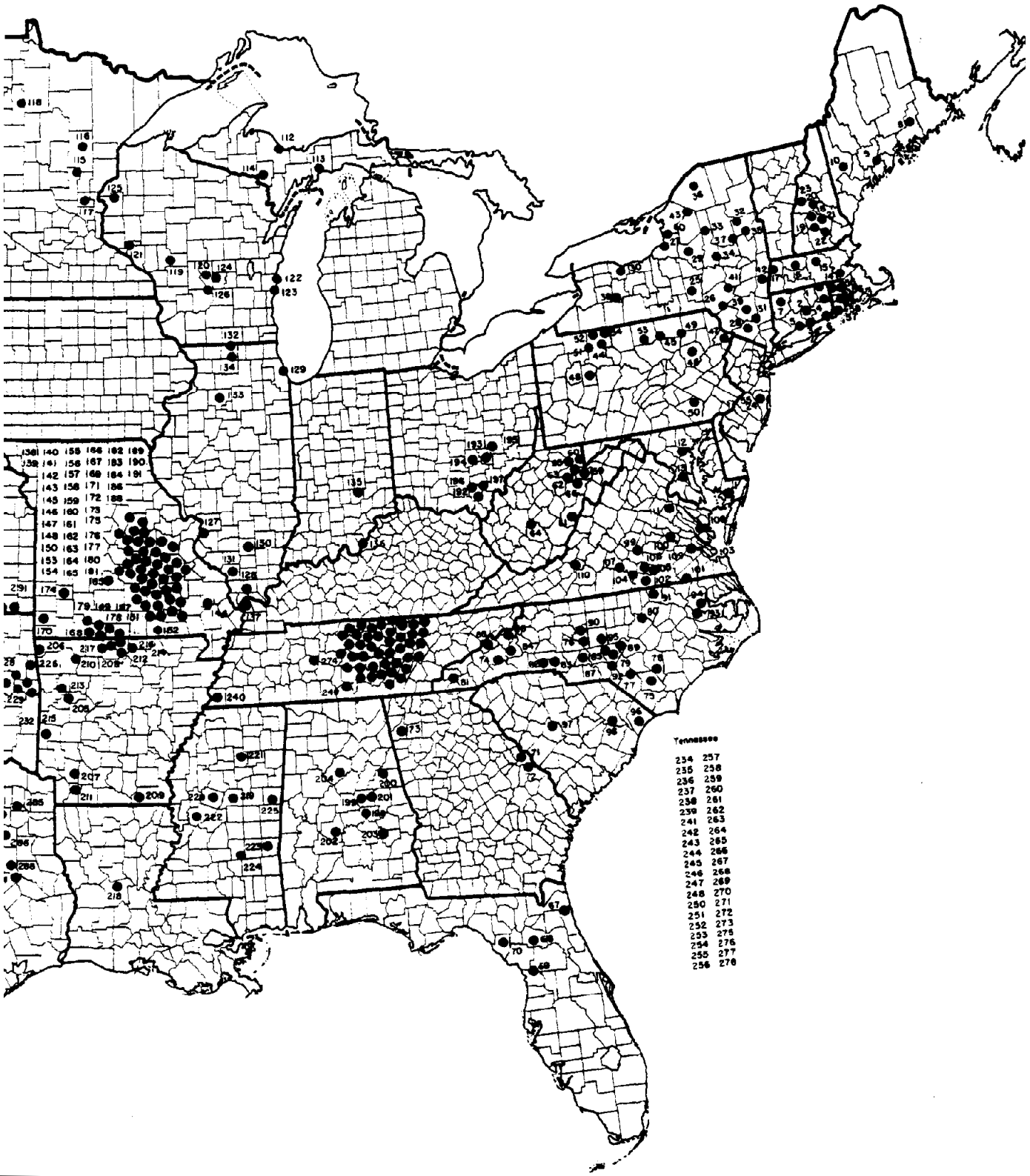
[1] Towns in parenthesis show plant location.
[2] New in 1962.

APPENDIX C

Map 1--Charcoal Producers in the United States

Map 2--Charcoal Briquets Producers in the United States


U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
DIVISION OF FOREST ECONOMICS AND MARKETING RESEARCH
NOVEMBER 1962
CHARCOAL PRODUCERS IN THE UNITED STATES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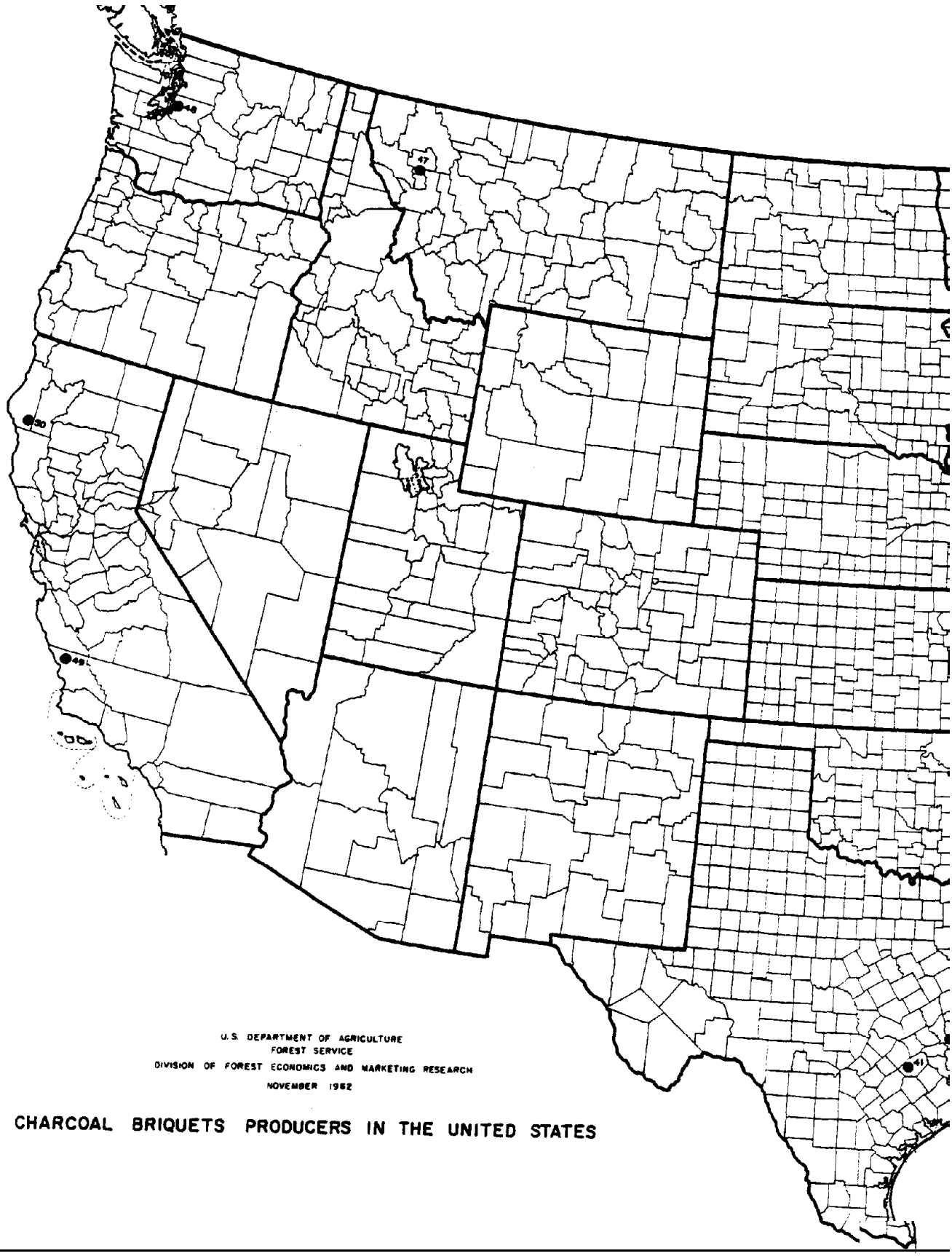

CHARCOAL BRIQUETS PRODUCERS IN THE UNITED STATES