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TIMBER VOLUME IN EASTERN SOUTH DAKOTA, 1980

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Ronald L. Hackett
Associate Mensurationist

ABSTRACT.—Eastern South Dakota's 113,600 acres of commercial forest land supported 51.9 million cubic feet of growing stock in 1981. This is a decrease in timber volume of 24 percent since the last inventory in 1965. The decrease was entirely in hardwood species. Cottonwood is the most abundant tree species—it accounts for 33 percent of the growing-stock volume and comprises 44 percent of the sawtimber volume. Shannon County in the southwestern part of the State contains the largest amount of timber volume.

KEY WORDS: Growing stock, sawtimber, species, counties.

Eastern[1] South Dakota's 113,600 acres of commercial forest land supported 51.9 million cubic feet of growing stock[2] in 1980. This is a decrease of 24 percent since the last inventory in 1965. As shown in the following tabulation the decrease was entirely in hardwood species—softwood volume remained the same:

Species group	Growing-stock volume [3]1965	1980
	(Million cubic feet)	
Softwoods	11.9	11.9
Hardwoods	56.3	40.0
Total	68.2	51.9

The average growing-stock volume per acre increased slightly from 412 cubic feet (3.2 cords per acre) in 1965 to 457 cubic feet (3.6 cords per acre) in 1981. This is due, in part, to increased volume by stand age of commercial forest land base.

Cottonwood is the most abundant tree species in eastern South Dakota and accounts for 33 percent of the growing stock volume (table 1). Its volume, however, has decreased by 3.9 million cubic feet (18 percent) between inventories. Ash, the second most plentiful species in the State, showed a decrease of 3.1 million cubic feet from 1965 to 1980. The third most plentiful species is ponderosa pine, which decreased only 0.6 million cubic feet in the 15 years between inventories. These three species make up about four-fifths of the growing-stock volume in eastern South Dakota. The following tabulation compares growing-stock volumes by species for both surveys.

[1]*East of the 103rd Meridian (near Rapid City) in South Dakota. The area west of the 103rd Meridian (Harding, Butte, Lawrence, Fall River, Meade, Pennington and Custer Counties) is inventoried by the Intermountain Forest and Range Experiment Station, Ogden, Utah.*

[2]*Net volume of all live merchantable trees 5 inches d.b.h. and larger from the stump to a variable 4-inch top diameter outside bark of the central stem. Does not include limbs or cull tree volume.*

[3]*Figures from the 1967 survey have been adjusted because of changes in survey procedures and definitions.*

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Table 1.--Net volume of growing stock on commercial forest land by species group and county, South Dakota, 1980.

(In thousand cubic feet)

County	All species	Softwoods			Hardwoods									
		Ponderosa pine	Juniper/ other softwoods	Total softwoods	Oak	Basswood	Soft maple	Elm	Ash	Cottonwood	Willow	Hackberry	Other hardwoods	Total hardwoods
Aurora	115.8	--	2.2	2.2	7.5	1.1	1.1	10.6	16.6	74.6	0.5	1.1	0.5	113.6
Beadle	585.8	--	8.7	8.7	32.2	7.7	4.2	95.2	168.3	220.0	2.0	4.5	43.0	577.1
Bennet	974.2	683.2	0.9	684.1	56.6	3.4	0.4	26.7	68.6	111.0	9.2	1.7	12.5	290.1
Bon Homme	1,441.6	18.2	26.9	45.1	102.9	15.8	18.8	116.9	400.3	629.9	34.6	10.1	67.2	1,396.5
Brookings	636.3	1.1	13.6	14.7	50.6	7.8	6.6	69.9	109.9	359.3	4.9	7.3	5.3	621.6
Brown	1,168.3	--	26.4	26.4	91.8	13.9	12.9	129.7	191.0	677.2	6.1	13.7	5.6	1,141.9
Brule	194.0	1.1	3.0	4.1	13.7	2.2	1.5	17.8	34.5	112.8	2.5	1.8	3.1	189.9
Buffalo	219.3	1.1	3.6	4.7	15.9	2.5	1.7	20.8	38.2	127.4	2.7	2.1	3.3	214.6
Campbell	56.4	1.1	--	1.1	3.2	0.6	--	3.1	11.6	32.4	1.8	0.2	2.4	55.3
Charles Mix	1,610.3	17.6	30.3	47.9	108.8	17.1	27.4	130.3	417.7	738.0	33.7	11.5	77.9	1,562.4
Clark	192.9	--	4.0	4.0	13.9	2.1	2.0	19.7	29.2	118.2	0.9	2.1	0.8	188.9
Clay	280.8	2.2	4.4	6.6	21.9	3.5	2.1	27.8	55.6	150.0	4.6	2.8	5.9	274.2
Codington	382.4	8.1	21.6	29.7	29.2	5.1	0.7	37.5	102.1	143.7	13.4	2.6	18.4	352.7
Corson	1,847.3	26.5	44.1	70.6	130.0	20.6	26.3	150.3	526.0	764.5	48.5	12.2	98.3	1,776.7
Custer[1/]	230.7	--	5.3	5.3	18.5	2.8	2.6	26.1	38.3	132.0	1.2	2.8	1.1	225.4
Davison	262.9	--	3.8	3.8	21.7	2.0	1.9	20.4	101.7	103.4	3.2	2.0	2.8	259.1
Day	738.2	7.6	15.4	23.0	41.5	11.5	28.3	51.3	250.1	251.0	14.6	3.1	63.8	715.2
Deuel	278.3	--	6.4	6.4	22.3	3.4	3.1	31.5	46.2	159.2	1.5	3.3	1.4	271.9
Dewey	734.9	13.1	33.1	46.2	54.6	9.3	2.1	69.6	180.7	314.5	22.4	5.2	30.3	688.7
Douglas	4.3	--	--	--	--	--	--	--	0.2	4.1	--	--	--	4.3
Edmunds	20.3	--	0.5	0.5	1.6	0.2	0.2	2.3	3.4	11.7	0.1	0.2	0.1	19.8
Faulk	18.6	--	0.4	0.4	1.5	0.2	0.2	2.1	3.1	10.7	0.1	0.2	0.1	18.2
Grant	939.3	20.0	0.4	20.4	62.2	11.0	0.2	108.2	324.8	288.3	32.9	4.9	86.4	918.9
Gregory	3,111.8	3.2	47.6	50.8	218.6	28.2	68.3	248.1	980.6	1,357.2	29.7	23.8	106.5	3,061.0
Haakon	590.4	1.1	12.7	13.8	39.1	5.6	4.6	51.4	107.0	353.9	4.7	5.2	5.1	576.6
Hamlin	306.9	1.1	6.1	7.2	24.5	3.8	3.0	33.0	56.0	169.0	3.2	3.4	3.8	299.7
Hand	55.5	--	0.9	0.9	3.0	0.5	0.4	4.3	7.1	38.5	0.2	0.4	0.2	54.6
Hanson	121.5	--	1.3	1.3	10.0	0.7	0.6	7.3	58.8	38.7	1.8	0.7	1.6	120.2
Hughes	284.3	--	6.2	6.2	21.7	3.3	3.0	30.6	45.6	168.0	1.4	3.2	1.3	278.1
Hutchinson	272.9	--	3.0	3.0	21.8	1.6	1.5	16.9	122.2	97.2	3.8	1.6	3.3	269.9
Hyde	18.8	--	0.4	0.4	1.5	0.2	0.2	2.1	3.1	10.9	0.1	0.2	0.1	18.4
Jackson	211.5	--	4.1	4.1	14.1	2.1	2.0	19.9	29.4	136.0	0.9	2.1	0.9	207.4
Jerauld	126.8	2.2	0.9	3.1	9.6	1.6	0.4	10.4	29.9	62.0	3.8	0.9	5.1	123.7
Jones	377.9	--	6.5	6.5	25.6	3.5	3.2	32.6	72.7	226.1	2.3	3.4	2.0	371.4
Kingsbury	327.8	--	7.2	7.2	24.9	3.8	3.5	35.2	52.3	194.1	1.6	3.7	1.5	320.6
Lake	177.8	--	3.0	3.0	13.1	1.6	1.4	15.1	46.3	93.1	1.4	1.5	1.3	174.8
Lincoln	630.0	--	10.8	10.8	45.9	5.7	12.1	55.4	175.3	298.8	4.8	5.6	15.6	619.2
Lyman	761.9	2.3	12.9	15.2	54.7	8.0	6.3	70.5	143.7	440.3	7.5	7.2	8.5	746.7
Marshall	1,035.3	21.4	1.3	22.7	69.5	12.3	0.6	114.8	343.7	342.2	35.4	5.6	88.5	1,012.6
McCook	364.0	1.1	5.6	6.7	28.6	3.6	2.8	31.9	103.0	174.6	4.6	3.2	5.0	357.3
McPherson	8.9	--	--	--	--	--	--	--	0.4	8.5	--	--	--	8.9

(Table 1 continued on next page)

(Table 1 continued)

County	All species	Softwoods			Hardwoods									
		Ponderosa pine	Juniper/ other softwoods	Total softwoods	Oak	Basswood	Soft maple	Elm	Ash	Cottonwood	Willow	Hackberry	Other hardwoods	Total hardwoods
Meade[1/]	1,705.1	33.7	44.9	78.6	168.7	137.8	11.4	249.5	556.6	431.8	24.2	6.9	39.6	1,626.5
Mellette	2,020.2	78.9	33.0	111.9	127.3	26.0	26.9	212.0	501.4	901.6	16.5	15.2	81.4	1,908.3
Miner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minnehaha	401.1	6.6	3.0	9.6	33.3	5.2	1.5	34.2	118.1	167.8	12.2	3.1	16.1	391.5
Moody	604.3	8.8	0.9	9.7	29.7	5.2	7.2	78.7	227.2	157.3	14.6	2.5	72.2	594.6
Pennington[1/]	368.3	6.5	2.6	9.1	28.7	4.9	1.2	31.2	90.5	173.4	11.3	2.8	15.2	359.2
Perkins	516.8	--	16.4	16.4	34.6	5.2	4.8	51.3	74.8	320.2	2.3	5.1	2.1	500.4
Potter	40.0	1.2	--	1.2	3.5	0.6	--	3.3	12.4	14.2	1.9	0.3	2.6	38.8
Roberts	2,587.4	26.2	22.4	48.6	167.9	78.2	90.9	203.5	930.5	793.8	52.0	9.4	212.6	2,538.8
Sanborn	160.9	2.2	1.7	3.9	12.7	2.1	0.8	14.9	36.8	79.0	4.0	1.4	5.3	157.0
Shannon	11,505.9	7,760.7	22.7	7,783.4	288.7	24.8	115.6	311.2	1,290.7	1,338.3	69.5	14.4	269.3	3,722.5
Spink	543.9	4.4	8.8	13.2	32.9	5.3	16.3	43.1	135.3	251.8	8.5	3.9	33.6	530.7
Stanley	325.9	3.2	4.7	7.9	26.2	4.2	2.3	32.3	68.9	166.2	6.4	3.2	8.3	318.0
Sully	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Todd	3,992.6	2,313.5	39.2	2,352.7	185.7	19.4	8.6	198.1	404.1	728.9	35.4	13.5	46.2	1,639.9
Tripp	761.4	8.8	11.8	20.6	62.4	18.4	4.2	79.9	166.7	364.8	16.4	6.5	21.5	740.8
Turner	321.0	--	5.2	5.2	26.7	2.8	2.6	27.3	113.1	134.0	3.5	2.7	3.1	315.8
Union	1,032.0	2.2	11.9	14.1	61.9	7.5	32.6	70.7	322.8	450.5	10.1	6.7	55.1	1,017.9
Walworth	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Washabaugh	1,213.4	222.8	5.2	228.0	53.5	8.6	0.6	149.1	377.6	251.4	24.1	4.1	116.4	985.4
Yankton	1,556.4	--	17.3	17.3	114.0	9.2	29.0	97.8	669.8	541.3	18.6	9.0	50.4	1,539.1
Ziebach	533.3	11.1	4.1	15.2	36.6	6.4	7.3	37.9	151.9	220.3	18.3	3.0	36.4	518.1
All counties	51,906.8 [2/]	11,324.1	641.3	11,965.4	3,023.3	601.7	622.0	3,873.3	11,744.4	17,229.6	698.4	280.8	1,867.9	39,941.4

[1/] Only the portions of these counties east of the 103rd meridian are included in the area surveyed by the North Central Forest Experiment Station.

[2/] Sampling error is estimated to be 40 percent.

Species group	Growing-stock volume [3]1965	1980
	(million cubic feet)	
SOFTWOODS		
Ponderosa pine	11.9	11.3
Other softwoods[4]	—	0.6
Total	11.9	11.9
HARDWOODS		
Oak	2.8	3.0
Basswood	1.6	0.6
Soft maple	0.8	0.6
Hard maple	0.2	—
Elm	11.8	3.9
Ash	14.8	11.7
Cottonwood	21.1	17.2
Willow	1.3	0.7
Hackberry	0.1	0.3
Black walnut	0.1	—
Other hardwoods[5]	1.7	2.0
Total	56.3	40.0

Included in the growing-stock volume are 176 million board feet in sawtimber trees.[6] The average sawtimber volume per acre is 1,552.8 board feet. As with growing stock, cottonwood is by far the leading sawtimber species in eastern South Dakota and comprises 44 percent of the volume. Ponderosa pine is ranked second and accounts for 22 percent of the total sawtimber volume. Ash, oak, and elm account for most of the remaining sawtimber volume as shown in the following tabulation:

Species	Sawtimber (Thousand board feet)[7]
Cottonwood	77,328
Ponderosa pine	38,644
Ash	31,936
Oak	9,832
Elm	7,833
Other species	10,827
Total	176,400

[4]*Other softwoods are Rocky Mountain juniper and eastern red cedar.*

[5]*Other hardwoods are honey locust, red mulberry, eastern hophornbeam, chokecherry, Canada plum, wild plum, and aspen.*

[6]*Net volume of live merchantable sawtimber trees (softwoods 9.0 inches d.b.h. or larger and hardwoods 11.0 inches d.b.h. and larger) from the stump to a point in the central stem at which utilization for sawn products is limited by large branches, forks, or other defects, or by a top diameter outside bark of 7.0 inches for softwoods and 9.0 inches for hardwoods.*

[7]*International ¼-inch rule.*

Timber is concentrated primarily in the major river basins of Southwestern, Western, and Southern regions of eastern South Dakota. Shannon County in the southwestern part of the State contains the largest amount of timber volume (22 percent of the total), with 11.5 million cubic feet of growing stock and 38.5 million board feet of sawtimber volume (table 2). Sixty-nine percent of the total ponderosa pine growing-stock volume and 8 percent of the total cottonwood volume is found in Shannon County.

These statistics are based on results from the forest inventory conducted by the North Central Forest Experiment Station. Fieldwork for the inventory was completed in July 1980. This is one of a number of reports that will be prepared presenting resource statistics for Eastern South Dakota.

Sampling error for eastern South Dakota's total growing-stock volume of 51.9 million cubic feet is estimated to be ±40 percent. Sawtimber sampling error is estimated to be ±30 percent for the total of 176.4 million board feet.

Table 2.--Net volume of sawtimber on commercial forest land by species group and county, South Dakota, 1980.

(In thousand board feet)[1/]

County	All species	Softwoods			Hardwoods									
		Ponderosa pine	Juniper/ other softwoods	Total softwoods	Oak	Basswood	Soft maple	Elm	Ash	Cottonwood	Willow	Hack-berry	Other hardwoods	Total hardwoods
Aurora	380.5	--	--	--	22.1	2.2	3.9	14.3	23.4	313.5	--	--	1.1	380.5
Beadle	1,572.8	--	--	--	94.6	19.5	15.7	170.1	219.8	1,048.5	--	--	4.6	1,572.8
Bennet	3,003.5	2,093.5	--	2,093.5	83.6	6.2	1.6	83.5	147.4	545.5	33.5	--	8.7	910.0
Bon Homme	4,950.2	106.2	39.7	145.9	350.6	29.1	92.3	240.6	1,044.5	2,813.9	127.4	--	105.9	4,804.3
Brookings	2,200.2	6.3	--	6.3	151.8	14.7	24.6	97.5	172.3	1,717.6	6.6	--	8.8	2,193.9
Brown	4,029.3	--	--	--	270.9	26.5	47.8	174.7	286.6	3,208.9	--	--	13.9	4,029.3
Brule	650.1	6.4	--	6.4	43.0	4.1	5.4	27.4	57.4	496.6	6.6	--	3.2	643.7
Buffalo	712.1	6.6	--	6.6	49.5	4.7	6.5	31.5	64.7	538.1	6.9	--	3.6	705.5
Campbell	154.3	6.2	--	6.2	12.1	1.0	--	7.5	24.6	94.8	6.5	--	1.6	148.1
Charles Mix	5,468.7	102.9	40.8	143.7	365.4	31.4	136.6	257.2	1,039.1	3,235.1	118.9	--	141.3	5,325.0
Clark	637.3	--	--	--	41.1	4.0	7.2	26.5	43.4	513.0	--	--	2.1	637.3
Clay	951.5	13.0	--	13.0	69.9	6.5	7.9	44.3	98.2	692.4	13.6	--	5.7	938.5
Codington	1,305.5	47.1	51.2	98.3	105.3	9.2	2.5	115.2	199.3	713.6	49.2	--	12.9	1,207.2
Corson	6,381.7	155.2	82.1	237.3	450.7	37.6	132.6	343.2	1,339.1	3,506.1	179.2	--	155.9	6,144.4
Custer[2/]	800.0	--	--	--	54.6	5.3	9.6	35.2	57.7	634.8	--	--	2.8	800.0
Davison	1,013.2	--	--	--	67.9	3.9	7.0	25.4	396.0	488.8	16.6	--	7.6	1,013.2
Day	2,574.5	44.6	32.3	76.9	142.9	31.4	150.9	123.8	758.3	1,079.4	57.7	--	153.2	2,497.6
Deuel	964.9	--	--	--	65.8	6.4	11.6	42.4	69.6	765.7	--	--	3.4	964.9
Dewey	2,472.2	76.5	72.8	149.3	192.4	17.0	7.8	190.7	346.2	1,466.8	80.0	--	22.0	2,322.9
Douglas	10.9	--	--	--	--	--	--	--	--	10.9	--	--	--	10.9
Edmunds	70.4	--	--	--	4.8	0.5	0.8	3.1	5.1	55.9	--	--	0.2	70.4
Faulk	64.6	--	--	--	4.4	0.4	0.8	2.8	4.7	51.3	--	--	0.2	64.6
Grant	2,824.0	116.8	--	116.8	231.3	19.9	0.8	244.3	588.9	1,469.4	122.2	--	30.4	2,707.2
Gregory	11,346.8	18.9	8.0	26.9	677.0	58.3	333.3	335.3	3,331.7	6,161.0	124.0	--	299.3	11,319.9
Haakon	1,880.1	6.4	8.2	14.6	119.2	10.6	17.2	78.3	247.4	1,372.0	12.3	--	8.5	1,865.5
Hamlin	1,062.1	6.5	--	6.5	75.0	7.2	11.0	48.0	91.3	811.5	6.7	--	4.9	1,055.6
Hand	175.5	--	--	--	8.9	0.9	1.6	5.7	9.4	148.5	--	--	0.5	175.5
Hanson	488.1	--	--	--	32.3	1.3	2.3	8.5	250.8	177.4	11.1	--	4.4	488.1
Hughes	972.7	--	--	--	64.0	6.2	11.3	41.3	67.7	778.9	--	--	3.3	972.7
Hutchinson	1,072.3	--	--	--	69.5	3.0	5.5	20.0	511.1	431.7	22.4	--	9.1	1,072.3
Hyde	65.3	--	--	--	4.5	0.4	0.8	2.9	4.7	51.8	--	--	0.2	65.3
Jackson	659.1	--	--	--	41.6	4.1	7.3	26.8	44.1	533.1	--	--	2.1	659.1
Jerauld	417.8	12.7	--	12.7	33.4	3.0	1.5	20.8	59.1	270.3	13.3	--	3.7	405.1
Jones	1,221.1	--	--	--	76.8	6.5	11.8	43.2	191.6	880.2	5.7	--	5.3	1,221.1
Kingsbury	1,120.1	--	--	--	73.4	7.2	13.0	47.4	77.6	897.7	--	--	3.8	1,120.1
Lake	621.3	--	--	--	39.9	3.0	5.4	19.7	149.7	394.7	5.5	--	3.4	621.3
Lincoln	2,277.5	--	--	--	139.5	10.8	56.4	71.4	555.6	1,381.3	16.8	--	45.7	2,277.5
Lyman	2,490.2	13.2	--	13.2	168.2	15.2	23.4	101.3	315.3	1,821.8	19.6	--	12.2	2,477.0
Marshall	3,159.5	125.3	--	125.3	256.2	22.1	2.3	256.4	626.8	1,706.2	131.1	--	33.1	3,034.2
McCook	1,305.1	6.5	--	6.5	89.7	6.7	10.2	45.0	326.5	794.1	18.0	--	8.4	1,298.6
McPherson	22.5	--	--	--	--	--	--	--	--	22.5	--	--	--	22.5

(Table 2 continued on next page)

(Table 2 continued)

County	All species	Softwoods: Ponderosa pine	Softwoods: Juniper/ other softwoods	Softwoods: Total softwoods	Hardwoods: Oak	Hardwoods: Basswood	Hardwoods: Soft maple	Hardwoods: Elm	Hardwoods: Ash	Hardwoods: Cottonwood	Hardwoods: Willow	Hardwoods: Hack-berry	Hardwoods: Other hardwoods	Hardwoods: Total hardwoods
Meade[2/]	5,643.1	142.4	89.5	231.9	524.2	469.8	54.0	676.7	1,578.4	1,927.3	109.5	--	71.3	5,411.2
Mellette	6,449.4	297.4	26.8	324.2	392.3	63.9	123.1	351.0	1,163.5	3,885.4	49.0	--	97.0	6,125.2
Miner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minnehaha	1,417.5	38.5	--	38.5	115.4	9.4	5.5	66.0	303.2	820.2	45.9	--	13.4	1,379.0
Moody	1,660.0	51.4	--	51.4	108.7	9.4	38.4	168.0	416.1	766.0	53.8	--	48.2	1,608.6
Pennington[2/]	1,261.2	38.1	--	38.1	100.2	8.9	4.6	62.4	177.1	818.9	39.8	--	11.2	1,223.1
Perkins	1,664.5	--	16.3	16.3	101.9	10.0	18.0	81.7	107.8	1,323.6	--	--	5.2	1,648.2
Potter	141.1	6.7	--	6.7	13.1	1.1	--	8.0	26.4	77.1	7.0	--	1.7	134.4
Roberts	8,995.4	153.0	40.4	193.4	566.9	245.9	487.3	484.2	2,891.9	3,404.4	215.6	--	505.8	8,802.0
Sanborn	554.0	12.9	--	12.9	42.8	3.9	3.1	26.9	69.4	377.2	13.5	--	4.3	541.1
Shannon	38,526.6	24,888.2	24.5	24,912.7	1,019.0	45.2	615.6	995.0	4,463.4	5,543.6	292.2	--	639.9	13,613.9
Spink	1,860.8	25.7	8.1	33.8	107.4	9.9	83.8	75.7	322.2	1,122.7	26.9	--	78.4	1,827.0
Stanley	1,114.5	19.0	--	19.0	84.9	7.9	8.5	53.7	125.2	788.0	19.9	--	7.4	1,095.5
Sully	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Todd	15,104.2	9,196.6	88.1	9,284.7	653.4	35.9	32.0	486.0	989.1	3,464.3	119.5	--	39.3	5,819.5
Tripp	2,539.7	51.3	8.1	59.4	204.4	49.4	15.6	159.4	294.6	1,685.5	53.6	--	17.8	2,480.3
Turner	1,221.2	--	--	--	82.9	5.2	9.5	34.7	418.8	644.7	17.0	--	8.4	1,221.2
Union	3,664.2	12.7	--	12.7	194.2	14.1	166.7	94.0	1,084.3	1,902.9	40.9	--	154.4	3,651.5
Walworth	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Washabaugh	3,179.6	675.1	18.3	693.4	180.7	15.5	2.4	330.5	603.9	1,241.6	88.9	--	22.7	2,486.2
Yankton	6,032.2	--	--	--	361.6	17.4	142.6	114.9	2,711.0	2,429.2	106.9	--	148.6	6,032.2
Ziebach	1,820.8	64.6	8.2	72.8	134.3	11.6	38.6	90.9	343.4	1,009.8	67.6	--	51.8	1,748.0
All counties	176,399.5	[3/]38,644.4	663.4	39,307.8	9,832.1	1,482.4	3,037.5	7,832.9	31,936.4	77,327.7	2,578.9	--	3,063.8	137,091.7

[1/] International 1/4-inch rule.

[2/] Only the portions of these counties east of the 103rd meridian are included in the area surveyed by the North Central Forest Experiment Station.

[3/] Sampling error estimated to be 30 percent.

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