

ILLINOIS STATE GEOLOGICAL SURVEY



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AGRICULTURAL LIMESTONE DISTRIBUTION IN 1936 *
Preliminary Report

By W. H. Voskuil and W. A. Newton

Preliminary returns from producers of agricultural limestone in Illinois and adjoining states show that Illinois farmers applied approximately 1,022,916 tons to the soil in 1936. This preliminary total represents 95 per cent increase over the 1935 total.

The figures given in Table 1 show the steady increase in consumption of limestone by the farmers in this State since the low year of 1932. The total figured for 1936 is above that of all previous records, and it is probable that consumption will be even greater in 1937.

Table 1. - Agricultural Limestone Consumed
in Illinois, 1930-1936

<u>Year</u>	<u>Tons</u>
1930	811,000
1931	266,886
1932	132,995
1933	190,963
1934	346,141
1935	523,256
1936	1,022,916

* In cooperation with Mid-West Agricultural Limestone Institute.

Federal aid given to the farmers for the purchase of limestone during 1936 has helped increase this total tonnage to such a high figure. Experiments throughout the State by the Illinois Agricultural Experiment Station have proved that the application of limestone to Illinois soils is one of the soundest investments a farmer can make. The quality and quantity of crops which succeed the spreading of limestone on a given area of land not only pays for the limestone itself over one or more years, but also provides additional returns, the amount depending upon the need of the particular soil and the method of limestone application. Many farmers no doubt applied limestone on their crop lands for the first time last year as a result of the Federal aid. New markets for agricultural limestone producers should thus be created.

The sale of agricultural limestone has become more than a by-product business for many of the producers, and for many plants it represents a definite and major sales outlet for their product. This was realized by many during the depression years when the agricultural limestone market, although decreasing, continued at a fairly stable level as compared to outlets in the building and associated markets which were severely depressed. Table 1 shows clearly the revival of this market.

Agricultural limestone offers a recurring business. The expansion of the present market will depend upon informing the farmer of the profitableness of applying limestone to the soil. There are certain large areas in this State where the consumption is yet far below the needs of the soil, due to the annual removal of carbonates by erosion, leaching, and by the crops themselves.

Detailed statistics were received from Illinois producers and from producers in Indiana, Kentucky, Missouri, Iowa, and Wisconsin who ship agricultural limestone into Illinois. Information was also received from certain farm advisers in Illinois, supplying data for the many small local producers in these counties whose production figures were not available.

A preliminary report on the total tonnage of agricultural limestone marketed in each county in Illinois during 1935 and 1936 is given in Table 2. The approximate number of pounds of limestone used per acre of arable land in each county during the past three years are given in Table 3. The counties in this table are grouped into areas as defined in the index map at the end of the report.

Table 2. - Tonnage of Agricultural Limestone
Used in Illinois during 1935 and 1936

Tons marketed in each county in Illinois

County	1935		1936	
	Total	Produced in Illinois	Produced in other states	Total
Adams	5,194	6,855	811	7,666
Alexander	55	282	20	302
Bond	6,280	7,661	239	7,900
Boone (a)	0	6,000		6,000
Brown (a)	432	1,000		1,000
Bureau (a)	3,000	12,198		12,198
Calhoun	0	1,593		1,593
Carroll (a)	128	19,000		19,000
Cass	936	2,071	100	2,171
Champaign	3,531	16,919		16,919
Christian	3,911	10,971		10,971
Clark	15,341	18,327	10,471	28,798
Clay	469	2,162	55	2,217
Clinton	16,532	27,625		27,625
Coles	910	6,286	696	6,982
Cook	14,100	6,689	41	6,730
Crawford	1,378	6,212	1,992	8,204
Cumberland	3,772	7,949	10,804	18,753
DeKalb (a)	435	8,000		8,000
DeWitt	1,649	8,538	60	8,598
Douglas	2,720	6,554	1,295	7,849
DuPage	3,823	1,736		1,736
Edgar	3,850	562	2,145	2,707
Edwards	1,306	10,221	355	10,576
Effingham	9,923	13,634	7,893	21,527
Fayette	3,995	9,433	474	9,907
Ford	2,297	10,553		10,553
Franklin	3,364	4,024		4,024
Fulton	1,835	5,118	828	5,946
Gallatin (a)	0	9,950	50	10,000
Greene	8,739	14,897		14,897
Grundy	904	2,138		2,138
Hamilton	1,859	2,045		2,045
Hancock	952	5,562	1,312	6,874
Hardin	0	548		548
Henderson	115	4,300		4,300
Henry	8,575	14,181	1,201	15,382
Iroquois	4,213	13,810	9,649	23,459
Jackson	6,001	6,885		6,885
Jasper	2,451	7,128		7,128

Tons marketed in each county in Illinois--continued

County	: 1935 :		1936	
	: Total :	Produced in Illinois	Produced in other states	Total
Jefferson	3,158	7,884		7,884
Jersey	5,884	6,789		6,789
Jo Daviess (a)	8,000	9,500	500	10,000
Johnson	1,680	2,711		2,711
Kane	10,487	3,609		3,609
Kankakee	3,272	14,807		14,807
Kendall	1,214	5,957		5,957
Knox	3,845	3,702	2,467	6,169
Lake	9,412	762		762
LaSalle	1,304	12,745		12,745
Lawrence	2,235	2,163	1,616	3,779
Lee (a)	148	20,700	52	20,752
Livingston	10,888	32,616		32,616
Logan	2,721	13,211		13,211
McDonough	342	2,498	1,560	4,058
McHenry	2,104	3,703	103	3,806
McLean	20,125	47,595		47,595
Macon	2,580	14,013	333	14,346
Macoupin	16,012	12,991		12,991
Madison	17,396	28,077		28,077
Marion	7,583	7,706		7,706
Marshall	2,886	5,809	46	5,855
Mason	2,264	10,240		10,240
Massac	53	934		934
Menard	5,001	5,745		5,745
Mercer	3,856	2,442	15	2,457
Monroe	9,592	11,831		11,831
Montgomery	5,365	11,216		11,216
Morgan	2,904	2,720		2,720
Moultrie	392	2,868	452	3,320
Ogle (a)	4,000	4,000		4,000
Peoria	5,222	15,248	322	15,570
Perry	10,200	9,561		9,561
Platt	2,890	6,442	96	6,538
Pike (a)	20,000	20,000	233	20,233
Pope	116	7,741		7,741
Pulaski	64	820		820
Putnam	210	2,735		2,735
Randolph	15,402	24,148	39	24,187
Richland	1,809	3,204	2,274	5,478
Rock Island	6,615	6,954		6,954
St. Clair	27,076	55,823		55,823
Saline	1,003	5,319		5,319
Sangamon	5,764	9,230		9,230

Tons marketed in each county in Illinois--continued

County	1935		1936		Total
	Total	Produced in Illinois	Produced in other states	Total	
Schuyler	513	2,600	43		2,643
Scott	226	2,200			2,200
Shelby	3,431	13,110	2,457		15,567
Stark	1,404	1,924	1,453		3,377
Stephenson (a)	198	18,000			18,000
Tazewell	3,386	10,143			10,143
Union	3,562	3,596			3,596
Vermilion	2,412	7,476	698		8,174
Wabash	1,527	656	3,958		4,614
Warren	419	7,366	61		7,427
Washington	21,090	10,530	405		10,935
Wayne	690	2,218	589		2,807
White	1,438	1,192	6,969		8,161
Whiteside	2,184	5,475	32		5,507
Will	58,280	4,519			4,519
Williamson	1,958	2,491			2,491
Winnebago (a)	14	30,000			30,000
Woodford	4,692	19,263			19,263
Trucked (County unknown)	7,782	4,507			4,507
Total	523,256	945,652	77,264		1,022,916

(a) Estimated

Table 3. - Consumption of Limestone on Crop Land,
by Counties
(In Pounds per Acre)

County	Farm land in crops (1929)	Pounds of limestone per acre			
		1934	1935	1936	1926-1930 average
		Group 1			
Cook	164,478	32	172	82	28
DuPage	102,525	11	75	34	37
Ford	251,129	29	19	84	45

Table 3--continued

County	Farm land in crops (1929)	Pounds of limestone per acre			
		1934	1935	1936	1926-1930 average
Grundy	197,112	20	9	22	31
Iroquois	557,286	20	15	84	34
Kane	211,385	18	99	34	35
Kankakee	302,664	3	22	98	30
Kendall	154,130	35	16	77	43
Lake	105,632	24	178	14	19
Livingston	546,648	17	40	119	47
McHenry	222,210	11	19	22	25
Will	348,255	23	334	26	25
Average for data available		20.2	83.2	58.0	33.3
Group 2					
Boone	119,416	18	a/	100	90
Bureau	364,803	9	16	67	41
Carroll	160,827	a/	a/	236	68
DeKalb	306,290	7	3	52	55
Henry	352,861	50	50	87	85
Jo Daviess	156,735	a/	102	128	48
La Salle	518,450	9	5	49	35
Lee	324,847	4	1	128	74
Mercer	202,377	30	38	24	61
Ogle	312,720	a/	26	26	48
Rock Island	133,975	5	99	104	118
Stephenson	216,596	8	2	166	52
Whiteside	295,856	15	15	37	101
Winnebago	189,201	5	a/	317	180
Average for data available		14.5	32.5	108.6	75.4
Group 3					
Adams	277,310	55	37	55	59
Brown	80,291	23	11	24	108
Cass	146,012	8	13	30	91
Champaign	514,120	20	13	64	49
Christian	319,031	19	25	69	46
Clark	145,009	160	212	397	178
Coles	209,790	14	9	67	43
Cumberland	108,915	58	69	344	50
DeWitt	188,278	18	18	91	50
Douglas	205,598	21	26	76	49
Edgar	269,689	26	29	20	29

Table 3--continued

County	Farm land in crops (1929)	Pounds of limestone per acre			
		1934	1935	1936	1926-1930 average
Fulton	300,163	20	12	40	27
Hancock	283,251	15	7	49	51
Henderson	191,106	a/	1	45	49
Knox	274,189	35	31	45	46
Logan	304,439	11	18	87	36
Macon	272,508	25	17	105	33
Marshall	160,608	12	36	73	55
Mason	228,930	29	20	89	86
McDonough	230,365	23	3	35	50
McLean	587,468	108	69	162	75
Menard	141,309	9	71	81	39
Morgan	221,958	29	26	25	64
Moultrie	163,885	6	5	41	25
Peoria	216,423	52	48	144	75
Piatt	217,725	31	27	55	35
Pike	251,943	a/	159	161	125
Putnam	59,772	2	7	92	78
Sangamon	368,786	22	31	50	45
Scott	91,619	6	3	48	116
Schuyler	138,184	3	7	38	36
Shelby	291,314	10	23	107	44
Stark	127,343	21	22	53	47
Tazewell	287,997	27	24	70	66
Vermilion	412,415	12	12	40	45
Warren	224,789	2	4	66	29
Woodford	238,169	46	39	162	93
Average for data available		27.9	32.0	86.5	60.0
Group 4					
Calhoun	71,970	a/	a/	44	52
Greene	181,258	122	91	164	151
Jersey	114,569	93	113	119	198
Macoupin	272,761	116	132	95	98
Madison	267,696	115	130	210	206
Monroe	128,509	257	149	184	419
Randolph	196,678	168	157	246	250
St. Clair	245,327	52	220	455	286
Average for data available		131.8	141.7	189.6	209.9

Table 3--continued

County	Farm land in crops (1929)	Pounds of limestone per acre			
		1934	1935	1936	1926-1930 average
Group 5					
Alexander	49,556	a/	2	12	232
Bond	126,912	20	99	124	212
Clay	163,655	1	6	27	70
Clinton	188,070	84	176	294	238
Crawford	118,315	13	23	139	145
Edwards	84,133	33	31	251	83
Effingham	164,133	51	121	384	146
Fayette	237,164	9	34	84	71
Franklin	109,587	47	61	73	95
Gallatin	98,154	3	a/	204	47
Hamilton	154,223	15	24	27	31
Hardin	30,345	80	a/	36	15
Jackson	164,628	66	73	84	130
Jasper	170,030	7	39	84	36
Jefferson	168,303	16	38	100	68
Johnson	73,623	40	46	74	36
Lawrence	111,798	27	40	68	57
Marion	187,582	27	81	82	82
Massac	63,905	a/	1	29	68
Montgomery	255,255	25	42	88	103
Perry	132,068	64	155	145	123
Pope	69,469	36	a/	117	23
Pulaski	59,876	3	2	27	67
Richland	128,237	6	28	85	61
Saline	115,918	107	18	92	43
Union	105,293	59	68	68	121
Wabash	91,773	32	33	101	71
Washington	214,242	110	197	102	196
Wayne	236,695	4	6	24	20
White	182,452	22	16	89	75
Williamson	111,266	34	35	45	64
Average for data available		35.9	53.4	101.9	91.2

a/ Data incomplete

Shipments of agricultural limestone into Illinois from neighboring states increased during 1936 as did those shipments of stone produced in Illinois and marketed in other states. Tables 4 and 5 give these tabulations from 1931 to 1936.

Table 4. - Agricultural Limestone Produced in Other States and Marketed in Illinois, 1931-1936

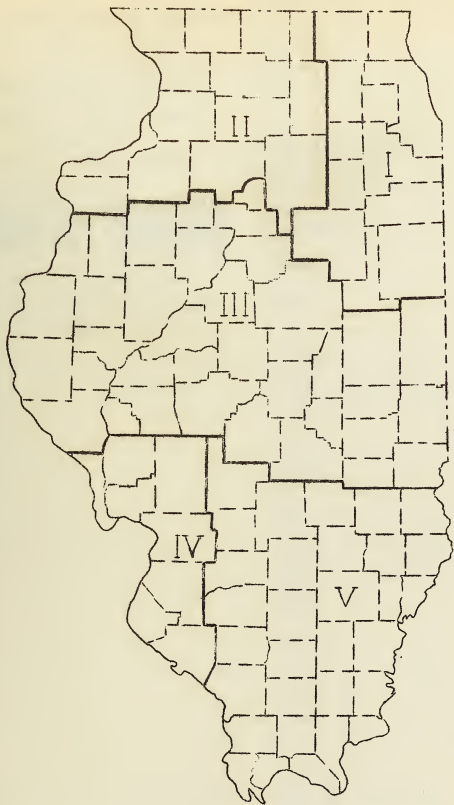
(In tons)

<u>Year</u>	<u>Tons Consumed from Outside Producers</u>	<u>Per Cent of Total Consumption</u>
1931	31,160.55	11.6
1932	15,231.	11.5
1933	12,845.	6.7
1934	56,095.	16.2
1935	54,803	10.5
1936	77,264.	7.5

Table 5. - Agricultural Limestone Produced in Illinois and Marketed in Other States, 1931-1936

(In tons)

<u>Year</u>	<u>Wisc.</u>	<u>Ia.</u>	<u>Mo.</u>	<u>Ky.</u>	<u>Ind.</u>	<u>Mich.</u>	<u>Tenn.</u>	<u>Total</u>
1931	650	--	37	500	9,570	4,764	1,450	16,971
1932	--	--	263	--	3,311	850	683	5,107
1933	--	62	80	41	5,299	421	730	6,633
1934	85	65	2,232	--	9,093	1,546	238	13,259
1935	67	1	130	32	10,102	4,135	1,095	15,562
1936	56	40	587	4,129	28,976	4,590	6,020	44,398



Index map of Illinois showing location of districts according to which consumption of limestone is given

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