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STATE OF ILLINOIS
DWIGHT H. GREEN, Gowrnur
DEPARTMENT OF REGISTRATION AND EDUCATION
FRANK G. THOMPSON, Diretor
DIVISION OF THE
STATE GEOLOGICAL SURVEY
M. M. LEIGHTON, Chirf

URBANA

CIRCULAR NO. 146

## AGSTONE USED IN ILLINOIS

IN 1947

BY
Walter H. Voskull and Ethel M. King


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## URBANA, ILLINOIS

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Reports of producers to the Illinois Geological Survey show that the amount of agstone (ground limestone and dolomite) used for soil improvement in Illinois during 1947 amounted to more than $5,180,000$ tons (table 1). This was 7.4 percent less than that used in 1946, but there was an increase of 11 cents per ton, or approximately 11 percent in value over 1946 .

Even with this decrease in tonnage, Illinois continued to rank first among all the states in the amount of liming material used for soil treatment.

Table 1.--Agstone used in Illinois, 1946 and $1947^{\text {a }}$

|  | 1946* |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Tons | Value | Tons | Value |
| Produced in Illinois |  |  |  |  |
| Limestone. | 3,070,813 | \$3,604,121 | 2,863,785 | \$3,799,900 |
| Dolomite. | 2,283,195 | 2,471,340 | 1,916,590 | 2,216,515 |
| Marl. | 5,460 | 7,135 | - | - |
| Total produced in Illinois. . Less marketed in other states. $\qquad$ | $5.359,468$ | 6,082,596 | 4,780,375 | 6,016,415 |
|  | 154,648 | 167,531 | 91,663 | 112,348 |
| Produced and used in Illinois. . . . | 5,204,820 | 5,915,065 | 4,688,712 | 5,904,067 |
| Produced in other states and used in Illinois. . . . . . . . . | 390,879 | 347,182 | 494,357 | 488,620 |
| Total agstone used in Illinois. | 5,595,699 | \$6,262,247 | 5,183,069 | \$6,392,687 |

[^0]Table 2.--Agstone used in Illinois Annually, 1927-1947 ${ }^{\text {a }}$

| Year | Tons | Value | Av. <br> price <br> per ton |
| :--- | ---: | ---: | :---: |
| 1927 | 647,155 | $\$ 579,639$ | $\$ 0.90$ |
| 1928 | 565,001 | 511,005 | .91 |
| 1929 | 947,798 | 843,693 | .89 |
| 1930 | 868,426 | 740,785 | .86 |
| 1931 | 268,874 | 241,376 | .90 |
| 1932 | 164,933 | 140,969 | .86 |
| 1933 | 227,466 | 165,667 | .73 |
| 1934 | 491,644 | 319,604 | .65 |
| 1935 | 379,555 | 268,139 | .71 |
| 1936 | $1,114,466$ | 871,862 | .78 |
| 1937 | $1,310,513$ | $1,279,981$ | .97 |
| 1938 | $1,251,263$ | $1,247,150$ | 1.00 |
| 1939 | $1,497,458$ | $1,318,173$ | .88 |
| 1940 | $2,365,663$ | $1,999,850$ | .84 |
| 1941 | $3,084,855$ | $2,873,536$ | .93 |
| 1942 | $3,866,568$ | $3,600,313$ | .93 |
| 1943 | $3,236,477$ | $3,175,108$ | .98 |
| 1944 | $4,214,600$ | $4,388,886$ | 1.04 |
| 1945 | $4,287,568$ | $4,627,705$ | 1.08 |
| 1946 | $* 5,595,699$ | $* 6,262,247$ | 1.12 |
| 1947 | $5,183,069$ | $6,392,687$ | 1.23 |

* Revised figures.
${ }^{\text {a }}$ U.S. Bureaur of Mines, 1927-29; canwass by Illinois Agriculture Association, 1930; canvass by Illinois Geological Survey, 1931-1947.

The value of agstone for improving soil fertility is now a well established fact. During 1947 the demand for this mineral material continued and far exceeded the supply. Many producers reported acute labor shortage, and this, together with increased wages and higher costs of supplies and equipment, curtailed production. In other instances unfavorable weather conditions and floods hindered both production and sales.

Of the 187 plants reporting on 1947 operations, 9 percent had discontinued operations, 2 percent changed ownership, and 19 percent were idle. Table 2 shows the use of agstone on Illinois farms during the years for which figures are available.

During 1947 agstone was produced in 47 of the 102 counties of the State. Of the total agstone used during the year, 90.5 percent was produced in Illinois.

Table 3 gives the use of agstone by districts and by counties comprising each district, showing the amount produced in Illinois and in other states.

These data are from producers who reported sales of agstone in specific counties. Production not accounted for in the county totals is given at the bottom of the table marked "counties not specified." Several counties, particularly Rock Island and Vermilion, show abnormally low tonnage. This is because some producers in these and other counties did not report their agstone production as distributed by counties, and therefore the proper allocation could not be made. The total production figures of these producers are included in "counties not specified." The total amount of agstone used in Illinois is the actual total of deliveries in Illinois reported by producers.

Table 3.--Agstone Used in Illinois by Districts and by Counties, 1946 and $1947^{\mathrm{a}}$
(In tons)

| Districts and Counties | Total used in 1946 | 1947 |  |  |  | Acres of arable land and plowable pasture (1940 census) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Distribution to counties as reported by producers ${ }^{\text {b }}$ |  |  | Produced in district, but county destination not reported by producer |  |
|  |  | Total used | From Illinois | From other states |  |  |
| District 1 County |  |  |  |  |  |  |
| Cook | 25,000 | 24,844 | 19,407 | 5,437 |  | 199,206 |
| Du Page | 33,800 | 28,169 | 28,169 | - |  | 116,731 |
| Ford | 28,000 | 19,489 | 19,489 | - |  | 280,058 |
| Grundy | 34,670 | 32,119 | 32,119 | - |  | 218,241 |
| Iroquois | 82,177 | 101,085 | 49,625 | 51,460 |  | 611,482 |
| Kane | 86,814 | 60,007 | 60,007 | - |  | 255,882 |
| Kankakee | 76,000 | 55,437 | 55,382 | 55 |  | 348,647 |
| Kendall | 39,780 | 19,814 | 19,814 | - |  | 168,326 |
| Lake | 14,000 | 6,374 | 6,374 | - |  | 140,960 |
| Livingston | 134,466 | 138,019 | 138,019 | - |  | 595,765 |
| McHenry | 24,251 | 35,354 | 35,354 | - |  | 262,43 4 |
| Will | 100,000 | 61,086 | 61,086 | - |  | 396,213 |
| Total agstone District 1 | 678,958 | 581,797 | 524,845 | 56,952 | 520,788 | 3,593,945 |
| District 2 County |  |  |  |  |  |  |
| Boone | 46,164 | 49,764 | 49,764 | - |  | 139,691 |
| Bureau | 120,000 | 85,989 | 85,624 | 365 |  | 440,808 |
| Carroll ${ }^{\text {c }}$ | 49,000 | 8,000 | 8,000 | - |  | 200,264 |
| DeKalb | 70,000 | 55,698 | 55,698 | - |  | 349,131 |
| Henry | 66,000 | 12,570 | 10,700 | 1,870 |  | 423,236 |
| Jo Daviess | 35,000 | 16,970 | 16,470 | 500 |  | 225,208 |
| La Salle | 135,000 | 72,412 | 72,412 | - |  | 585,735 |
| Lee | 180,795 | 40,686 | 40,686 | - |  | 385,196 |
| Mercer ${ }^{\text {c }}$ | 30,000 | 3,887 | 2,000 | 1,887 |  | 251,449 |
| Ogle | 100,000 | 68,619 | 68,619 | - |  | 383,404 |
| Rook Island ${ }^{\text {c }}$ | 60,000 | 201 | - | 201 |  | 156,111 |
| Stephenson | 90,000 | 48,497 | 48,497 | - |  | 283,408 |
| Whiteside | 127,000 | 89,417 | 89,297 | 120 |  | 350,544 |
| Winnebago | 40,412 | 50,665 | 50,665 | - |  | 219,494 |
| Total agstone District 2 | 1,149,371 | 603,375 | 598,432 | 4,943 | 252,570 | 4,393,679 |

Table 3.--Agstone Used in Illinois by Districts and by Counties, 1946 and $1947^{\text {a }}$ (continued) (In tons)

| Districts and Counties | Total used in 1946 | 1947 |  |  |  | Acres of arable land and plowable pasture (1940 census) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Distribution to counties as reported by producers ${ }^{\text {b }}$ |  |  | Produced in district but county destination not reported by producer |  |
|  |  | Total used | From Illinois | $\begin{gathered} \text { From } \\ \text { other states } \end{gathered}$ |  |  |
| District 3 <br> County |  |  |  |  |  |  |
| Adams | 65,000 | 77,059 | 76,151 | 908 |  | 328,009 |
| Brown ${ }^{\text {c }}$ | 13,600 | 1,538 | 1,538 | - |  | 119,648 |
| Cass | 45,873 | 38,505 | 37,816 | 689 |  | 157,002 |
| Champaign ${ }^{\text {c }}$ | 100,000 | 22,785 | 22,785 | - |  | 560,583 |
| Christian | 110,973 | 64,315 | 63,199 | 1,116 |  | 373,342 |
| Clark | 74,875 | 91,166 | 91,166 | - |  | 217,376 |
| Coles ${ }^{\text {c }}$ | 45,000 | 1,729 | 1,263 | 466 |  | 254,255 |
| Cumberland | 34,000 | 16,174 | 16,174 | - |  | 157,832 |
| DeWitt | 21,500 | 17,798 | 17,798 | - |  | 211,909 |
| Douglas ${ }^{\text {c }}$ | 25,633 | 2,081 | 1,421 | 660 |  | 231,817 |
| Edgar ${ }^{\text {c }}$ | 40,000 | 6,172 | 6,172 | - |  | 307,538 |
| Fulton | 50,000 | 51,777 | 42,118 | 9,659 |  | 338,466 |
| Hancock | 74,000 | 87,097 | 84,940 | 2,157 |  | 340,637 |
| Henderson | 25,000 | 18,000 | 18,000 | , |  | 156,071 |
| Knox | 87,289 | 76,856 | 40,429 | 36,427 |  | 317,827 |
| Logan | 78,974 | 87,270 | 85,921 | 1,349 |  | 346,615 |
| McDonough | 67,345 | 53,791 | 39,275 | 14,516 |  | 270,917 |
| McLean | 112,000 | 39,945 | 39,765 | 180 |  | 656,782 |
| Macon | 45,369 | 37,671 | 36,243 | 1,428 |  | 305,531 |
| Marshall | 21,307 | 23,490 | 23.490 | - |  | 189,489 |
| Mason | 55,000 | 51,001 | 50,820 | 181 |  | 248,797 |
| Menard | 27,000 | 39,029 | 36,828 | 2,201 |  | 154,392 |
| Morgan | 55,000 | 31,203 | 22,029 | 9,174 |  | 261,346 |
| Moultrie | 30,000 | 11,772 | 11,772 | - |  | 178,794 |
| Peoria | 100,000 | 45,662 | 45,542 | 120 |  | 243,380 |
| Piatt | 50,000 | 47,737 | 47,737 | - |  | 246,223 |
| Pike | 40,000 | 17,109 | 17,109 | - |  | 341,756 |
| Putnam | 21,386 | 12,956 | 12,956 | - |  | 66,867 |
| Sangamon | 76,660 | 105,222 | 93,625 | 11,597 |  | 425,644 |
| Schuyler | 12,000 | 30,496 | 14,414 | 16,082 |  | 144,306 |
| Scott | 20,152 | 32,925 | 31,106 | 1,819 |  | 103,624 |
| Shelby | 63,856 | 48,415 | 48,415 | , |  | 374,712 |
| Stark | 24,000 | 26,428 | 26,428 | - |  | 148,213 |
| Tazewell | 45,000 | 19,962 | 19,962 | - |  | 304,959 |
| Vermilion ${ }^{\text {c }}$ | 80,000 | 3,332 | 516 | 2,816 |  | 451,146 |
| Warren | 77,204 | 40,564 | 40,000 | 564 |  | 271,171 |
| Woodford | 32,666 | 23,472 | 23,472 | - |  | 258,560 |
| Total agstone District 3 | 1,947,662 | 1,402,504 | 1,288,395 | 114,109 | 345,462 | 10,065,536 |

Table 3.--Agstone Used in Illinois by Districts and by Counties, 1946 and $1947^{a}$ (continued)
(In tons)

| Districts and Counties | Total used in 1946 | 1947 |  |  |  | Acres of arable land and plowable pasture (1940 census) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Distribution to counties as reported by producers ${ }^{\text {b }}$ |  |  | Produced in district, but county destination not reported by producer |  |
|  |  | Total used | From <br> Illinois | From other states |  |  |
| District 4 County |  |  |  |  |  |  |
| Alexander | 12,250 | 12,030 | 11,830 | 200 |  | 58,779 |
| Bond | 35,000 | 16,462 | 8,519 | 7,943 |  | 168,876 |
| Calhoun | 16,500 | 6,260 | 6,260 | - |  | 70,886 |
| Clay | 32,426 | 25,407 | 15,519 | 9,888 |  | 201,735 |
| Clinton | 48,833 | 67,952 | 62,415 | 5,537 |  | 210,349 |
| Crawford | 25,375 | 20,663 | 17,155 | 3,508 |  | 193,868 |
| Edwards | 21,576 | 33,904 | 23,218 | 10,686 |  | 108,888 |
| Effingham | 49,827 | 56,377 | 39,695 | 16,682 |  | 213,369 |
| Fayette | 40,024 | 37,428 | 36,682 | 746 |  | 275,732 |
| Franklin | 36,906 | 39,388 | 32,815 | 6,573 |  | 146,843 |
| Gallatin | 25,000 | 43,411 | 42,841 | 570 |  | 127,951 |
| Greene | 32,000 | 31,746 | 31,694 | 52 |  | 226,052 |
| Hamilton | 25,200 | 30,129 | 10,672 | 19,457 |  | 179,698 |
| Hardin | 10,000 | 13,000 | 13,000 | - |  | 50,649 |
| Jackson | 38,000 | 37,471 | 37,471 | - |  | 188,088 |
| Jasper | 40,000 | 37,722 | 37,177 | 545 |  | 240,290 |
| Jefferson | 50,000 | 53,326 | 8,828 | 44,498 |  | 242,802 |
| Jersey | 25,273 | 22,000 | 22,000 | - |  | 134,766 |
| Johnson ${ }^{\text {c }}$ | 22,000 | 9,918 | 9,918 | - |  | 112,452 |
| Lawrence ${ }^{\text {c }}$ | 23,000 | 5,107 | 1,543 | 3,564 |  | 165,983 |
| Macoupin | 45,000 | 30,613 | 24,752 | 5,861 |  | 342,781 |
| Madison | 64,948 | 43,881 | 41,287 | 2,594 |  | 307,651 |
| Marion | 50,000 | 36,244 | 22,328 | 13,916 |  | 239131 |
| Massac | 19,150 | 17,016 | 17,016 | - |  | 89,357 |
| Monroe | 60,000 | 110,184 | 110,184 | - |  | 155,971 |
| Montgomery | 112,000 | 97, 717 | 76,543 | 21,174 |  | 322,306 |
| Perry | 35,000 | 26,086 | 18,074 | 8,012 |  | 156,265 |
| Pope | 10,000 | 18,372 | 18,372 | - |  | 92,321 |
| Pulaski | 12,277 | 23,903 | 23,903 | - |  | 68,920 |
| Randolph | 75,000 | 51,606 | 48,078 | 3,528 |  | 227,475 |
| Richland | 28,675 | 35,125 | 17,136 | 17,989 |  | 186,383 |
| St. Clair | 88,913 | 55,177 | 54,648 | 529 |  | 258,552 |
| Saline | 38,200 | 23,300 | 16,024 | 7,276 |  | 145,818 |
| Union | 35,854 | 37,122 | 37,122 | - |  | 123,799 |
| Wabash | 23,095 | 26,970 | 1,247 | 25,723 |  | 103,459 |

Table 3.--Agstone Used in Illinois by Districts and by Counties, 1946 and $1947^{\text {a }}$ (concluded) (In tons)

| Districts and Counties | Total used in 1946 | 1947 |  |  |  | Acres of arable land and plowable pasture (1940 census) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Distribution to counties as reported by producers ${ }^{\text {b }}$ |  |  | Produced in district, but county destination not reported by producer |  |
|  |  | Total used | From Illinois | $\begin{gathered} \text { From } \\ \text { other states } \end{gathered}$ |  |  |
| $\begin{gathered} \text { District } 4 \\ \text { County } \\ \hline \text { (cont.) } \end{gathered}$ |  |  |  |  |  |  |
| Washington | 33,000 | 27,681 | 13,765 | 13,916 |  | 242,105 |
| Wayne | 60,000 | 48,407 | 12,034 | 36,373 |  | 330,724 |
| White | 62,650 | 61,700 | 35,107 | 26,593 |  | 240,726 |
| Williamson | 26,732 | 20,077 | 17,868 | 2,209 |  | 128,514 |
| Total agstone District 4 | 1,489,684 | 1,390,882 | 1,074,740 | 316,142 | 83,480 | 7,080,314 |
| Total agstone distributed | 5,265,675 | 3,978,558 | 3,486,412 | 492,146 |  |  |
| County not specified | *330,024 | 1,204,511 | 1,202,300 | 2,211 | 1,204,511 |  |
| Total | *5,595,699 | 5,183,069 | 4,688, 712 | 494,357 | ? | 25,133,474 |
| * Revised figures. |  |  |  |  |  |  |
| a Compiled from canvass made by Illinois Geological Survey, in cooperation with Illinois Agricultural Association and Midwest Agricultural Limestone Institute. |  |  |  |  |  |  |
| b This represents only the tonnage of producers who gave 'county distribution. Production figures for which county distribution was not given are listed in column 6 . |  |  |  |  |  |  |
| This county shows abnormally low tonnage because some producers did not report distribution by counties. |  |  |  |  |  |  |

Table 4.--Agstone Produced in Other States and Used in Illinois, 1941-1947 ${ }^{\text {a }}$

| Year | Tons <br> sold in <br> Illinois | Percent of <br> total Illinois <br> consumption |
| :--- | ---: | :---: |
| 1941 | 95,226 | 3.2 |
| 1942 | 171,035 | 4.5 |
| 1943 | 166,518 | 5.3 |
| 1944 | 314,800 | 7.5 |
| 1945 | 181,200 | 4.3 |
| 1946 | 390,879 | $* 7.0$ |
| 1947 | 494,357 | 9.5 |

* Revised figures.
a From canvass made by Illinois Geological Survey

The total quantity of agstone produced in other states but marketed in Illinois is shown in table 4. This amounted to 9.5 percent of the total used in Illinois.

Table 5 gives the total quantity of agstone produced in Illinois which was marketed in other states. This amounted to 1.9 percent of the total amount produced in Illinois.

The map on page 10 shows the four limestone distribution districts into which the State is divided, and the counties comprising each district (table 3).

Table 5.--Agstone Produced in Illinois and Marketed in Other States, 1941-1947 ${ }^{\text {a }}$
(In tons)

| Year | Indiana | Iowa | Kentucky | Missouri | Wisconsin | Other states $^{\text {b }}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: |
| 1941 | 1,800 | 100 | 940 | 867 | - | 1,125 | 4,832 |
| 1942 | 28,811 | - | 9,700 | 203 | 450 | 19,853 | 59,017 |
| 1943 | 34,579 | 11,000 | 1,000 | 1,192 | - | 28,200 | 75,971 |
| 1944 | 46,302 | 7,683 | 8,900 | 8 | - | 110,318 | 173,211 |
| 1945 | 46,000 | - | 23,600 | 2,700 | - | 117,900 | 190,200 |
|  |  |  |  |  |  |  |  |
| 1946 | 46,495 | 5 | - | 208 | 5,140 | 102,800 | 154,648 |
| 1947 | 61,129 | 10,000 | 4,504 | 1,133 | 783 | 14,114 | 91,663 |

[^1]

LIMESTONE DISTRIBUTION DISTRICTS

Illinois State Geological Survey
Urbana, Illinois
Circular 146
1948


[^0]:    * Revised figures.
    a Summary of canvass made by Illinois Geological Survey in cooperation with Illinois Agricultural Association and Midwest Agricultural Limestone Institute.

[^1]:    a From canvass made by Illinois Geological Survey.
    b Marketed outside Illinois, destination seldom specified.

