

FERTILIZER



Crop & Livestock
Reporting
Service
515-284-4340

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IOWA

June 2, 1977

CONSUMPTION BY CLASS

Consumption of commercial fertilizer in Iowa totaled 3.66 million tons in the year ending June 30, 1976. This is a 22 percent increase from the 2.99 million tons purchased a year earlier. The total tonnage consisted of 1,903,000 tons dry bulk, 1,569,000 tons in liquid form and 186,000 tons dry bagged. Mixed fertilizers made up 33 percent, 1,195,400 tons, of the total while direct application types made up 67 percent, 2,461,800 tons.

Total Fertilizer 1/: Consumption of Mixtures and Direct Application Materials by Class, Iowa and U.S., from 1972 to 1976

Year ended June 30	IOWA				UNITED STATES			
	Dry bagged	Dry bulk	Liquid	Total	Dry bagged	Dry bulk	Liquid	Total
	----- Thousand tons -----				----- Thousand tons -----			
1972	295.9	1,270.0	1,037.9	2,603.8	11,246.0	17,513.1	10,839.7	39,598.8
1973	340.1	1,339.9	983.5	2,663.5	10,544.8	20,153.6	11,124.0	41,822.4
1974	317.5	1,521.1	1,091.5	2,930.1	10,482.4	21,836.7	12,645.3	44,964.4
1975	220.8	1,602.8	1,168.7	2,992.3	9,044.1	19,372.6	12,189.3	40,605.9
1976	<u>185.7</u>	<u>1,902.7</u>	<u>1,568.9</u>	<u>3,657.2</u>	<u>8,535.7</u>	<u>23,336.9</u>	<u>14,941.3</u>	<u>40,813.8</u>
Average	272.0	1,527.3	1,170.1	2,969.4	9,970.6	20,442.6	12,347.9	41,561.1

Total Fertilizer 1/: Consumption of Mixtures and Direct Application Materials by Class, by States, Year Ended June 30, 1976

State	Mixtures and materials				% of total fertilizer		
	Dry bagged	Dry bulk	Liquid	Total <u>2/</u>	Dry bagged	Dry bulk	Liquid
	----- Thousand tons -----				----- Percent -----		
ILL	157.6	2,080.9	1,748.8	3,987.3	4	52	44
IOWA	<u>185.7</u>	<u>1,902.7</u>	<u>1,568.9</u>	<u>3,657.2</u>	<u>5</u>	<u>52</u>	<u>43</u>
MINN	<u>178.9</u>	<u>1,303.7</u>	<u>688.8</u>	<u>2,171.4</u>	<u>8</u>	<u>60</u>	<u>32</u>
MO	171.4	1,196.7	381.5	1,749.6	10	68	22
NEBR	70.4	514.4	1,002.7	1,587.4	5	32	63
S DAK	22.7	276.0	103.9	402.5	6	68	26
WIS	<u>157.1</u>	<u>748.1</u>	<u>234.8</u>	<u>1,140.1</u>	<u>14</u>	<u>66</u>	<u>20</u>
U. S.	8,535.7	23,336.9	14,941.3	46,813.8	18	50	32

1/ Excludes secondary and micronutrient materials. 2/ Sum of individual items may not equal total due to rounding.

**Liquid Fertilizer Average Analysis: Average Primary-Nutrient Content
of Liquid Fertilizers Consumed as Mixtures and Materials, by States,
Year Ended June 30, 1976**

State	Liquid mixtures				Liquid materials			
	N	Avail- able P ₂ O ₅	K ₂ O	Total N, Available P ₂ O ₅ and K ₂ O	N	Avail- able P ₂ O ₅	K ₂ O	Total N, Available P ₂ O ₅ and K ₂ O
	----- Percent -----							
ILL	7.0	14.0	13.1	34.1	56.2	.1	0	56.3
IOWA	7.5	16.1	14.7	38.3	60.2	0	0	60.2
MINN	8.3	21.6	8.4	38.3	66.4	.1	0	66.5
MO	9.9	9.8	10.8	30.5	58.6	0	0	58.6
NEBR	9.6	26.3	3.4	39.3	61.0	0	0	61.0
S DAK	9.5	24.8	4.5	38.8	49.1	2.9	0	52.0
WIS	8.3	16.3	11.6	36.2	49.8	0	.1	49.9
U. S.	9.1	15.5	9.4	34.0	50.9	.2	.1	51.2

**Mixtures: Consumption of Mixed Fertilizer
by Class, by States, Year Ended June 30, 1976**

State	Mixtures				% of total mixtures		
	Dry bagged	Dry bulk	Liquid	Total 1/	Dry bagged	Dry bulk	Liquid
	----- Thousand tons -----				----- Percent -----		
ILL	143.5	753.2	526.6	1,423.3	10	53	37
IOWA	172.1	688.6	334.7	1,195.4	14	58	28
MINN	112.0	546.9	147.6	806.5	14	68	18
MO	151.2	1,032.9	148.2	1,332.3	11	78	11
NEBR	49.4	186.0	111.0	346.4	14	54	32
S DAK	16.1	118.1	26.6	160.8	10	73	17
WIS	136.2	245.3	47.4	428.9	32	57	11
U. S.	6,621.0	12,728.1	3,638.2	22,987.3	29	55	16

1/ Sum of individual items may not equal total due to rounding.

**Materials 1/: Consumption of Direct Application Primary Nutrient
Materials by Class, by States, Year Ended June 30, 1976**

State	Materials				% of total materials		
	Dry bagged	Dry bulk	Liquid	Total 2/	Dry bagged	Dry bulk	Liquid
	----- Thousand tons -----				----- Percent -----		
ILL	14.1	1,327.7	1,222.2	2,564.0	1	52	47
IOWA	13.5	1,214.1	1,234.2	2,461.8	1	49	50
MINN	66.9	756.7	541.3	1,364.9	5	55	40
MO	20.2	163.8	233.3	417.3	5	39	56
NEBR	21.0	328.4	891.7	1,241.1	2	26	72
S DAK	6.6	157.9	77.3	241.7	3	65	32
WIS	21.0	502.8	187.4	711.1	3	71	26
U. S.	1,914.7	10,608.8	11,303.1	23,826.5	8	45	47

1/ Excludes secondary and micronutrient materials. 2/ Sum of individual items may not equal total due to rounding.

USE AND APPLICATION RATES

Ninety-eight percent of the corn acreage harvested for grain in Iowa received fertilizer in 1976, an increase from 94 percent in 1975. Nine percent of the soybean acreage was fertilized in 1976, a decrease from 1975. Rates of application for N, P, and K per acre of corn showed increases from 1975. Nitrogen increased to 126.2 pounds, phosphate upped to 62.1 pounds, and potash increased to 67.1 pounds per acre. Eighty-five percent of the corn acres were fertilized at or before planting in 1976, an increase from 1975.

Rate of application for soybeans showed a 33 pound increase in nitrogen, a 5.6 pound increase in phosphates, and a 25.3 pound per acre increase in potash. All soybean acres continued to be fertilized at or before planting.

Fertilizer Use on Corn Acreage Harvested for Grain and Soybeans Harvested for Beans, 1968 - 1976, Iowa

Crop and year	Acres harvested <u>1/</u>	Fields in survey	Acres receiving				Rate per acre Receiving <u>2/</u>			Acres fertilized <u>3/</u>		
			Any fert.	N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O	At or before planting only	After planting only	At or before & after planting
<i>Corn</i>	<u>Thous.</u>	<u>No.</u>	<u>Percent</u>				<u>Pounds</u>			<u>Percent</u>		
1968	9,775	198	88	87	84	80	104.3	64.4	54.2	78	2	20
1969	9,549	201	92	91	88	83	108.1	66.9	58.4	63	3	34
1970	10,077	206	95	94	90	87	106.9	66.7	63.1	82	1	17
1971	11,550	207	95	94	89	84	100.5	57.5	51.7	81	3	16
1972	10,450	208	94	94	90	86	110.0	60.3	56.4	77	1	22
1973	11,150	204	94	93	84	80	109.0	59.3	54.7	71	7	22
1974	11,750	195	91	90	81	79	101.8	61.9	63.8	80	3	17
1975	12,130	190	94	93	85	82	102.4	58.6	62.2	80	6	14
1976	12,750	191	98	98	90	85	126.2	62.1	67.1	85	2	15
<i>Soybeans</i>												
1968	5,561	127	22	17	22	21	9.6	39.4	33.5	96	4	0
1969	5,450	118	13	6	12	12	7.8	53.4	53.4	93	7	0
1970	5,680	147	13	8	13	13	11.4	43.8	49.1	100	0	0
1971	5,500	152	11	7	11	11	10.2	33.9	45.4	100	0	0
1972	6,050	142	14	9	13	14	11.3	35.7	34.7	95	5	0
1973	7,900	148	16	10	16	16	10.2	41.9	47.7	100	0	0
1974	7,070	153	11	7	11	11	8.4	33.0	43.8	94	6	0
1975	6,970	143	11	8	11	11	9.1	27.1	33.9	100	0	0
1976	6,560	139	9	7	9	9	12.4	32.7	59.2	100	0	0

1/ Official USDA estimate. 2/ Nutrients were reported as N, P₂O₅ and K₂O. P₂O₅ can be converted to P by dividing by 2.2914; K₂O can be converted to K by dividing by 1.2046. 3/ Percentages apply to acres receiving fertilizer, not to total acres harvested.

Fertilizer Use on Corn Acreage Harvested for Grain, Selected States, 1976

State	Acres harvested 1/	Fields in survey	Acres receiving				Rate per acre receiving 2/			Acres fertilized 3/		
			Any fert.	N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O	At or before planting only	After planting only	At or before & after planting
	Thous.	No.	Percent				Pounds			Percent		
ILL	11,600	226	99	99	96	94	141.3	77.8	92.4	73.1	0.4	26.5
IND	6,250	182	100	100	100	98	129.3	84.1	104.7	66.5	0.5	33.0
IOWA	12,750	191	98	98	90	85	126.2	62.1	67.1	85.1	1.6	13.3
KANS	1,750	155	98	98	72	44	161.8	58.6	44.2	81.6	0.0	18.4
MICH	2,000	102	99	99	97	99	88.7	63.0	73.6	54.5	1.0	44.5
MINN	5,600	144	97	97	95	94	104.3	60.8	67.9	83.6	0.7	15.7
MO	2,880	139	98	98	89	88	115.8	52.3	59.4	79.4	0.7	19.9
NEBR	6,200	163	91	91	65	42	142.9	41.8	25.4	56.0	3.1	40.9
OHIO	3,900	145	100	100	98	97	116.2	79.8	81.9	76.6	0.0	23.4
S DAK	1,400	68	60	57	54	31	60.6	33.6	13.5	82.9	7.3	9.8

Fertilizer Use on Soybean Acreage Harvested for Beans, Selected States, 1976

ARK	4,320	155	33	13	29	32	19.1	35.6	55.9	98.0	2.0	0.0
ILL	7,560	152	28	12	23	28	11.7	48.6	79.1	100.0	0.0	0.0
IND	3,280	114	56	48	54	55	10.4	34.3	52.1	95.3	4.7	0.0
IOWA	6,560	139	9	7	9	9	12.4	32.7	59.2	100.0	0.0	0.0
KANS	880	49	10	8	10	8	32.0	43.4	26.3	100.0	0.0	0.0
MINN	2,900	110	13	7	10	12	20.6	31.4	63.8	100.0	0.0	0.0
MISS	3,400	124	42	26	40	41	16.5	57.2	58.6	96.2	3.8	0.0
MO	4,300	139	12	9	10	12	11.9	42.9	58.8	87.5	12.5	0.0
NEBR	1,030	60	8	7	7	7	23.3	37.0	24.0	100.0	0.0	0.0
OHIO	2,880	99	50	36	50	5	11.0	39.2	46.5	95.9	4.1	0.0

1/ Official USDA estimate. 2/ Nutrients were reported as N, P₂O₅ and K₂O. P₂O₅ can be converted to P by dividing by 2.2914; K₂O can be converted to K by dividing by 1.2046. 3/ Percentages apply to acres receiving fertilizer, not to total acres harvested.

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Statistical Reporting Service

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