

# Agricultural Chemical Usage

## Asparagus: Agricultural chemical and fertilizer applications, 2018 <sup>1</sup>

Agricultural chemical	Area applied	Applications	Rate per application	Rate per crop year	Total applied
	<i>Percent</i>	<i>Number</i>	<i>Pounds per acre</i>	<i>Pounds per acre</i>	<i>Pounds</i>
Herbicides					
Metribuzin	60	1.3	0.575	0.723	4,400
Pendimethrin	14	1.0	1.680	1.680	2,400
S-Metolachlor	63	1.0	1.322	1.328	8,300
Sulfentrazone	53	1.1	0.213	0.245	1,300
Terbacil	31	1.0	0.390	0.390	1,200
Fungicides					
Chlorothalonil	79	3.8	1.453	5.490	43,300
Tebuconazole	51	3.2	0.125	0.404	2,000
Fertilizer					
Nitrogen	94	2.1	31	67	630,000
Phosphate	42	1.5	43	63	265,000
Potash	97	1.8	67	124	1,197,000
Sulfur	45	2.2	15	32	142,000

<sup>1</sup> Planted acres in 2018 were 10,000 acres.

## Snap Beans: Agricultural chemical & fertilizer applications, 2018 <sup>1</sup>

Agricultural chemical	Area applied	Applications	Rate per application	Rate per crop year	Total applied
	<i>Percent</i>	<i>Number</i>	<i>Pounds per acre</i>	<i>Pounds per acre</i>	<i>Pounds</i>
Herbicides					
S-Metolachlor	62	1	0.979	0.979	12,800
ALL	99				68,200
Insecticides					
ALL	91				10,100
Fungicides					
ALL	86				1,700
Fertilizer					
Nitrogen	89	1.5	29	45	830,000
Phosphate	87	1.1	12	13	241,000
Potash	83	1.1	63	69	1,199,000
Sulfur	37	1.3	13	17	128,000

<sup>1</sup> Planted acres in 2018 were 21,000 acres.

**Cucumbers: Agricultural chemical and fertilizer applications, 2018 <sup>1</sup>**

Agricultural chemical	Area applied	Applications	Rate per application	Rate per crop year	Total applied
	<i>Percent</i>	<i>Number</i>	<i>Pounds per acre</i>	<i>Pounds per acre</i>	<i>Pounds</i>
Herbicides					
Clomazone	11	1.0	0.143	0.143	500
Ethalfuralin	12	1.0	1.101	1.101	4,600
ALL	12				5,300
Insecticides					
ALL	88				30,700
Fungicides					
Chlorothalonil	1	4.4	0.356	1.557	400
Copper Hydroxide	4	1.3	1.095	1.427	2,100
ALL	92				354,300
Fertilizer					
Nitrogen	100	2.9	107	310	10,840,000
Phosphate	100	1.1	81	91	3,177,000
Potash	100	2.8	127	352	12,280,000

<sup>1</sup> Planted acres in 2018 were 35,000.

**Pumpkins: Agricultural chemical and fertilizer applications, 2018 <sup>1</sup>**

Agricultural chemical	Area applied	Applications	Rate per application	Rate per crop year	Total applied
	<i>Percent</i>	<i>Number</i>	<i>Pounds per acre</i>	<i>Pounds per acre</i>	<i>Pounds</i>
Herbicides					
Clomazone	34	1.0	0.306	0.306	600
Ethalfuralin	46	1.0	0.685	0.685	1,800
Glyphosate iso. salt	4	1.0	0.958	0.958	200
Glyphosate pot. salt	12	1.0	1.107	1.107	700
Halosulfuron	19	1.5	0.041	0.060	100
S-Metolachlor	26	1.0	1.050	1.050	1,600
ALL	72				5,300
Insecticides					
Carbaryl	4	3.6	0.907	3.284	700
Imidacloprid	5	1.1	0.190	0.201	100
Lambda-Cyhalothrin	39	1.5	0.028	0.041	100
Zeta-Cypermethrin	17	3.4	0.029	0.098	100
ALL	63				1,800
Fungicides					
Azoxystrobin	11	1.3	0.101	0.136	100
Chlorothalonil	78	3.0	1.448	4.411	19,700
Copper chloride	46	3.2	0.169	0.547	1,400
Copper hydroxide	57	3.1	0.208	0.642	2,100
Cyflufenamid	37	1.6	0.022	0.036	100
Cymoxanil	11	2.0	0.129	0.261	200
Difenoconazole	25	1.1	0.097	0.106	200
Famoxadone	11	2.0	0.129	0.262	200
Mancozeb	7	1.9	1.539	2.876	1,100
Myclobutanil	9	1.3	0.111	0.142	100
Quinoline	27	1.8	0.096	0.172	300
ALL	81				28,100
Fertilizer					
Nitrogen	93	1.5	43.000	64.000	326,000
Phosphate	82	1.3	41.000	52.000	241,000
Potash	89	1.4	61.000	82.000	414,000
Sulfur	11	1.1	19.000	21.000	13,000

<sup>1</sup> Planted acres in 2018 were 5,700.

**Squash: Agricultural chemical and fertilizer applications, 2018 <sup>1</sup>**

Agricultural chemical	Area applied	Applications	Rate per application	Rate per crop year	Total applied
	<i>Percent</i>	<i>Number</i>	<i>Pounds per acre</i>	<i>Pounds per acre</i>	<i>Pounds</i>
Herbicides					
Clomazone	30	1	0.202	0.204	500
Ethalfuralin	36	1	0.624	0.630	2,000
S-Metolachlor	2	1	1.118	1.118	200
ALL	37				3,100
Insecticides					
Carbaryl	32	2	0.995	1.996	5,700
ALL	60				6,100
Fungicides					
Azoxystrobin	13	1.9	0.107	0.207	200
Benzovindiflupyr	12	2.9	0.057	0.167	200
Chlorothalonil	90	2.5	1.545	3.811	30,900
Copper chloride hyd.	42	3.1	0.166	0.509	1,900
Copper hydroxide	60	2.9	0.24	0.692	3,700
Cyflufenamid	27	1.6	0.022	0.036	100
Difenoconazole	13	2.9	0.085	0.248	300
Mancozeb	3	1.2	1.531	1.895	500
ALL	94				38,400
Fertilizer					
Nitrogen	83	1.8	59	105	784,000
Phosphate	82	1.1	48	51	379,000
Potash	81	1.1	139	150	1,101,000
Sulfur	28	1.1	11	13	33,000

<sup>1</sup> Planted acres in 2018 were 9,000 acres.

**Agricultural chemical applications: Corn, 2018 <sup>1</sup>**

Agricultural chemical	Area applied	Applications	Rate per application	Rate per crop year	Total applied
	<i>Percent</i>	<i>Number</i>	<i>Pounds per acre</i>	<i>Pounds per acre</i>	<i>Pounds</i>
Herbicides:					
Acetochlor	18	1.1	1.441	1.608	661,000
Atrazine	63	1.1	0.937	1.001	1,450,000
Bicyclopyrone	6	1.0	0.029	0.029	4,000
Clopyralid	6	1.0	0.069	0.069	10,000
Dimethenamid-P	15	1.0	0.454	0.454	152,000
Flumetsulam	11	1.0	0.031	0.031	8,000
Glyphosate	5	1.3	0.981	1.248	141,000
Glyphosate iso. Salt	27	1.3	0.851	1.122	690,000
Glyphosate Pot. Salt	32	1.3	0.893	1.201	877,000
Mesotrione	19	1.0	0.119	0.119	53,000
S-Metolachlor	11	1.0	0.036	0.036	9,000
Saflufenacil	24	1.1	1.068	1.173	636,000
Tembotrione	16	1.0	0.068	0.068	26,000
Thiencarbazone-methyl	18	1.0	0.015	0.015	6,000
Topramezone	6	1.0	0.019	0.019	3,000
ALL	98				4,999,000
Insecticides					
ALL	8				13,000
Fungicides					
ALL	5				71,000

<sup>1</sup> Planted acres in 2018 were 2.30 million acres.

**Fertilizer applications: Corn, 2018 <sup>1</sup>**

Fertilizer	Area applied	Applications	Rate per application	Rate per crop year	Total applied
	<i>Percent</i>	<i>Number</i>	<i>Pounds per acre</i>	<i>Pounds per acre</i>	<i>Million pounds</i>
Nitrogen--N	97	2.5	59	144	322.4
Phosphate--P2O5	79	1.2	38	47	86.1
Potash--K2O	71	1.1	86	96	156.4
Sulfur--S	29	1.4	8	11	7.5

<sup>1</sup> Planted acres in 2018 were 2.30 million acres.

**Agricultural chemical applications: Soybeans, 2018 <sup>1</sup>**

Agricultural chemical	Area applied	Applications	Rate per application	Rate per crop year	Total applied
	<i>Percent</i>	<i>Number</i>	<i>Pounds per acre</i>	<i>Pounds per acre</i>	<i>Pounds</i>
<b>Herbicides</b>					
2,4-D, 2-Ehe	8	1.0	0.529	0.529	98,000
Chlorimuron-ethyl	5	1.0	0.014	0.014	1,000
Clethodim	6	1.0	0.117	0.119	16,000
Flumioxazin	4	1.0	0.055	0.055	6,000
Fomesafen sodium	9	1.0	0.237	0.237	50,000
Glufosinate-ammonium	25	1.3	0.502	0.656	374,000
Glyphosate	5	1.1	1.088	1.233	144,000
Glyphosate iso. salt	39	1.4	0.892	1.250	1,115,000
Glyphosate pot. salt	38	1.6	1.115	1.799	1,561,000
Imazethapyr	11	1.2	0.048	0.056	15,000
Metolachlor	4	1.0	1.353	1.353	115,000
Metribuzin	19	1.0	0.230	0.230	100,000
Pyroxasulfone	10	1.2	0.108	0.129	28,000
Saflufenacil	20	1.1	0.021	0.023	10,000
S-metolachlor	7	1.0	0.857	0.857	143,000
Sulfentrazone	5	1.0	0.113	0.113	13,000
ALL	99				4,026,000
<b>Insecticides</b>					
ALL	6				59,000

<sup>1</sup> Planted acres in 2018 were 2.30 million acres.

**Fertilizer applications: Soybeans, 2018 <sup>1</sup>**

Fertilizer	Area applied	Applications	Rate per application	Rate per crop year	Total applied
	<i>Percent</i>	<i>Number</i>	<i>Pounds per acre</i>	<i>Pounds per acre</i>	<i>Million pounds</i>
Nitrogen (N)	50	1.2	13	15	16.9
Phosphate (P2O5 )	48	1.1	40	42	45.7
Potash (K2O)	77	1.1	82	88	155.6
Sulfur (S)	18	1.1	19	21	8.9

<sup>1</sup> Planted acres in 2018 were 2.30 million acres.