2010 Agricultural
Chemical Use Estimates

August 8, 2011 **Email: NCagstat@ncagr.gov**

The 2010 estimates for chemical use on cabbage, cucumbers, bell peppers, snap beans, squash, sweet corn, tomatoes and watermelons in North Carolina are part of a series of chemical use data collected by the USDA, NASS, North Carolina Field Office. North Carolina participated in the chemical usage survey along with 18 other states.

Snap Beans: Agricultural Chemical Applications, 2010 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Fomesafen	66	1.0	0.194	0.194	0.8
Glyphosate Iso. Salt	30	1.0	0.792	0.793	1.4
S-Metolachlor	22	1.0	0.954	0.967	1.3
Sethoxydim	32	1.0	0.117	0.117	0.2
Insecticides					
Acephate	93	1.0	0.655	0.657	3.6
Carbaryl	[2]	3.0	0.204	0.606	[2]
Endosulfan	1	4.3	0.750	3.244	0.3
Esfenvalerate	11	1.6	0.032	0.051	[2]
Methomyl	1	2.9	0.257	0.733	0.1
Fungicides					
Azoxystrobin	82	1.4	0.100	0.143	0.7
Chlorothalonil	2	3.9	1.385	5.348	0.8

[1] Planted acreage in 2010 for North Carolina was 6,000 acres. [2] Area applied is less than 0.5 percent.

Cabbage: Agricultural Chemical Applications, 2010 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate Iso. Salt	6	1.0	211.369	216.462	66.6
Insecticides					
BT Subsp. Kurstaki	65	1.7	(NA)	(NA)	(NA)
Chlorantraniliprole	26	2.3	0.005	0.012	[2]
Esfenvalerate	57	1.8	0.024	0.042	0.1
Indoxacarb	8	2.8	0.064	0.180	0.1
Spinosad	8	1.5	0.062	0.096	[2]
Zeta-Cypermethrin	15	1.7	0.025	0.043	[2]
Fungicides					
Azoxystrobin	8	1.8	0.163	0.302	0.1
Chlorothalonil	28	1.9	1.312	2.443	3.5

[1] Planted acreage in 2010 for North Carolina was 5,100 acres. [2] Area applied is less than 0.5 percent.

Sweet Corn: Agricultural Chemical Applications, 2010 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Alachlor	7	1.0	1.694	1.694	0.9
Atrazine	43	1.0	1.174	1.218	4.0
S-Metolachlor	47	1.0	1.231	1.247	4.4
Insecticides					
Carbaryl	3	2.2	0.672	1.510	0.4
Cyfluthrin	32	4.2	0.040	0.168	0.4
Esfenvalerate	21	3.8	0.034	0.127	0.2
Lambda-Cyhalothrin	34	3.2	0.027	0.089	0.2
Methomyl	31	4.7	0.422	1.967	4.6
Permethrin	11	2.2	0.138	0.299	0.2
Zeta-Cypermethrin	33	4.3	0.019	0.081	0.2

[1] Planted acreage in 2010 for North Carolina was 7,600 acres

Cucumbers, Fresh: Agricultural Chemical Applications, 2010 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	13	1.2	0.460	0.571	0.5
Ethalfluralin	47	1.0	0.688	0.688	2.0
Glyphosate Iso. Salt	4	1.3	0.833	1.066	0.3
Halosulfuron	20	1.0	0.029	0.029	(NA)
Paraquat	5	1.3	0.748	0.963	0.3
Insecticides					
Carbaryl	7	1.3	0.896	1.129	0.5
Endosulfan	4	1.9	0.654	1.239	0.3
Esfenvalerate	26	3.6	0.037	0.135	0.2
Fungicides					
Azoxystrobin	11	1.1	0.218	0.247	0.2
Chlorothalonil	20	2.0	1.417	2.864	3.6
Copper Hydroxide	7	2.7	1.231	3.303	1.4
Fluopicolide	12	1.5	0.095	0.144	0.1
Mancozeb	15	3.2	1.141	3.681	3.3
Pyraclostrobin	9	2.2	0.120	0.264	0.1

[1] *Planted acreage in 2010 for North Carolina was 6,200 acres*

Cucumbers, Pickles: Agricultural Chemical Applications, 2010 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Ethalfluralin	77	1.7	1.167	1.927	14.4
Halosulfuron	43	1.2	0.028	0.033	0.1
Fungicides					
Azoxystrobin	16	1.0	0.174	0.181	0.3
Chlorothalonil	42	2.9	1.251	3.571	14.4
Cyazofamid	21	5.0	0.065	0.327	0.7
Mancozeb	32	1.0	1.518	1.555	4.9
Propamocarb Hydroch.	40	1.9	0.813	1.569	6.1
Other					
Dichloropropene	27	1.0	51.782	51.782	181.4

[1] *Planted acreage in 2010 for North Carolina was 9,700 acres*

Bell Peppers: Agricultural Chemical Applications, 2010 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Paraquat	11	2.1	0.254	0.527	0.2
Insecticides					
Acephate	66	2.6	0.736	1.923	4.5
Chlorantraniliprole	8	4.7	0.006	0.026	[2]
Dimethoate	9	1.5	0.250	0.366	0.1
Endosulfan	12	2.4	0.741	1.759	0.7
Esfenvalerate	5	5.3	0.033	0.172	[2]
Methomyl	16	3.2	0.390	1.266	0.7
Spinetoram-J	35	3.0	0.023	0.069	0.1
Spinetoram-L	35	3.0	0.023	0.069	0.1
Fungicides					
Azoxystrobin	12	2.8	0.114	0.319	0.1
Chlorothalonil	9	5.5	1.039	5.670	1.7
Copper Hydroxide	61	10.9	0.695	7.607	16.3
Mancozeb	31	4.2	1.536	6.402	6.8
Pyraclostrobin	2	1.5	0.134	0.201	[2]

[1] *Planted acreage in 2010 for North Carolina was 3,500 acres.* [2] *Area applied is less than 0.5 percent.*

Squash: Agricultural Chemical Applications, 2010 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Ethalfluralin	21	1.0	0.594	0.607	0.4
Glyphosate Iso. Salt	16	1.1	0.825	0.945	0.5
Paraquat	21	1.0	0.458	0.460	0.3
Sethoxydim	3	1.0	0.287	0.287	[2]
Insecticides					
Bifenthrin	14	1.7	0.056	0.094	[2]
Endosulfan	16	2.9	0.728	2.104	1.2
Esfenvalerate	36	4.3	0.039	0.168	0.2
Methomyl	9	1.5	0.607	0.893	0.3
Permethrin	4	1.6	0.163	0.256	[2]
Fungicides					
Azoxystrobin	24	1.7	0.230	0.381	0.3
Chlorothalonil	58	1.6	1.260	2.038	4.2
Copper Hydroxide	8	1.9	0.653	1.240	0.3
Mancozeb	19	3.7	1.145	4.195	2.9
Pyraclostrobin	19	1.8	0.096	0.177	0.1

[1] Planted acreage in 2010 for North Carolina was 3,500 acres. [2] Area applied is less than 0.5 percent.

Tomatoes: Agricultural Chemical Applications, 2010 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre	Pounds per Acre	1,000 lbs
Herbicides					
Methanone	16	5.5	0.539	2.956	1.6
Metribuzin	21	2.4	0.385	0.931	0.7
Paraquat	21	3.7	0.584	2.183	1.5
S-Metolachlor	13	1.1	0.965	1.032	0.4
Insecticides					
Bifenazate	34	1.1	0.490	0.516	0.6
Bifenthrin	17	5.1	0.027	0.139	0.1
Bt Subsp. Kurstaki	30	4.9	(NA)	(NA)	(NA)
Carbaryl	2	2.0	0.633	1.244	0.1
Chlorantraniliprole	47	2.9	0.006	0.017	[2]
Cyfluthrin	29	4.7	0.094	0.439	0.4
Dimethoate	49	9.5	0.468	4.427	7.2
Endosulfan	15	2.8	0.739	2.104	1.0
Esfenvalerate	13	4.8	0.033	0.161	0.1
Fenpropathrin	32	1.7	0.188	0.328	0.3
Methomyl	25	6.3	0.306	1.936	1.6
Spinetoram-J	44	2.1	0.022	0.047	0.1
Spinetoram-L	44	2.1	0.022	0.047	0.1
Zeta-Cypermethrin	7	9.0	0.003	0.029	[2]
Fungicides					
Azoxystrobin	58	4.2	0.105	0.442	0.8
Basic Copper Sulfate	40	2.2	0.749	1.616	2.1
Boscalid	41	2.6	0.162	0.420	0.6
Chlorothalonil	78	5.0	1.662	8.264	21.3
Copper Hydroxide	34	18.5	0.797	14.771	16.7
Copper Sulfate	5	7.7	0.539	4.160	0.6
Difenoconazole	21	1.1	0.099	0.105	0.1
Fluopicolide	3	1.7	0.108	0.186	[2]
Mancozeb	72	7.6	1.721	13.059	31.1
Mandipropamide Techn	22	1.2	0.101	0.118	0.1
Pyraclostrobin	11	3.1	0.118	0.362	0.1
Other					
Acibenzolar-S-Methyl	21	4.4	0.014	0.062	[2]

[1] Planted acreage in 2010 for North Carolina was 3,300 acres. [2] Area applied is less than 0.5 percent.

Watermelons: Agricultural Chemical Applications, 2010 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	22	1.0	0.309	0.310	0.5
Ethalfluralin	23	1.0	0.723	0.723	1.2
Glyphosate Iso. Salt	13	2.7	0.715	1.927	1.8
Halosulfuron	22	1.0	0.018	0.018	[2]
Sethoxydim	5	1.1	0.658	0.744	0.3
Insecticides					
Carbaryl	14	2.1	0.542	1.112	1.2
Esfenvalerate	16	1.2	0.032	0.040	[2]
Fungicides					
Azoxystrobin	25	1.9	0.101	0.198	0.3
Boscalid	42	1.0	0.012	0.012	[2]
Copper Hydroxide	13	2.4	0.706	1.674	1.5
Mancozeb	18	1.5	1.144	1.772	2.3
Pyraclostrobin	54	1.7	0.095	0.160	0.6

[1] Planted acreage in 2010 for North Carolina was 7,200 acres. [2] Area applied is less than 0.5 percent.

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