

Pesticides in Produce

Test Results: 45 Fruits & Veggies

Rank (worst to best)	Commodity	Combined Score	Percentage of Samples Tested with Detectable Pesticides	Percentage of Samples With Two or More Pesticides	Average Number of Pesticides Found on a Sample	Average Amount (in ppm*) of All Pesticides Found	Maximum Number of Pesticides Found on a Single Sample	Number of Pesticides Found on the Commodity in Total
(worst)		(highest pesticide load)						
1	Peaches	100	96.6%	86.6%	3.1	1.134	9	42
2	Apples	96	93.6%	82.3%	2.8	0.894	9	50
3	Sweet Bell Peppers	86	81.5%	62.2%	2.4	0.138	11	64
4	Celery	85	94.1%	79.8%	3.0	0.413	9	30
5	Nectarines	84	97.3%	85.3%	3.0	0.576	7	26
6	Strawberries	83	92.3%	69.2%	2.3	0.799	8	38
7	Cherries	75	91.4%	75.8%	2.8	0.290	7	25
8	Lettuce	69	68.2%	44.2%	1.7	0.142	9	57
9	Grapes - Imported	68	84.2%	53.2%	1.8	0.284	8	37
10	Pears	65	86.2%	45.7%	1.6	0.586	6	33
11	Spinach	60	70.0%	31.2%	1.1	1.240	6	24
12	Potatoes	58	81.0%	18.0%	1.0	1.655	4	18
13	Carrots	57	81.7%	48.3%	1.6	0.046	6	31
14	Green Beans	55	67.6%	42.0%	1.4	0.199	6	35
15	Hot Peppers	53	55.0%	27.5%	1.0	0.290	6	51
16	Cucumbers	52	72.5%	31.7%	1.2	0.057	6	40
17	Raspberries	47	47.9%	23.3%	0.9	0.906	6	21
18	Plums	46	74.0%	27.1%	1.1	0.666	4	15
19	Oranges	46	85.1%	34.6%	1.3	0.100	4	18
20	Grapes - Domestic	46	60.5%	23.4%	0.9	0.104	7	31
21	Cauliflower	39	84.6%	14.6%	1.0	0.004	5	15
22	Tangerines	38	66.7%	33.3%	1.2	0.375	3	4
23	Mushrooms	37	60.2%	22.3%	0.9	0.158	5	16
24	Cantaloupe	34	53.3%	19.4%	0.8	0.026	4	25
25	Lemon	31	55.6%	10.0%	0.7	0.188	5	10
26	Honeydew Melon	31	59.2%	14.2%	0.8	0.012	4	16
27	Grapefruit	31	62.9%	15.2%	0.8	0.056	4	9
28	Winter Squash	31	41.3%	11.6%	0.6	0.017	5	26

29	Tomatoes	30	46.9%	13.5%	0.6	0.029	5	16
30	Sweet Potatoes	30	58.4%	10.0%	0.7	0.198	3	17
31	Watermelons	25	38.5%	13.2%	0.6	0.021	4	13
32	Blueberries	24	27.5%	10.0%	0.4	0.327	4	11
33	Papaya	21	23.5%	5.0%	0.3	0.053	4	19
34	Eggplant	19	23.4%	6.9%	0.3	0.013	4	15
35	Broccoli	18	28.1%	3.2%	0.3	0.004	3	19
36	Cabbage	17	17.9%	4.8%	0.2	0.121	3	18
37	Bananas	16	41.7%	2.0%	0.4	0.029	2	7
38	Kiwi	14	15.3%	3.4%	0.2	0.160	3	8
39	Asparagus	11	6.7%	0.6%	0.1	0.026	2	19
40	Sweet Peas - Frozen	11	22.9%	2.3%	0.3	0.010	2	5
41	Mango	9	7.1%	0.5%	0.1	0.057	2	13
42	Pineapples	7	7.7%	0.6%	0.1	0.002	2	7
43	Sweet Corn - Frozen	2	3.8%	0.0%	0.0	0.005	1	3
44	Avocado	1	1.4%	0.0%	0.0	0.001	1	2
45	Onions	1	0.2%	0.0%	0.0	0.000	1	2
(best)			(lowest pesticide load)					

Note: We ranked a total of 44 different fruits and vegetables but grapes are listed twice because we looked at both domestic and imported samples.

* ppm means parts per million

Why Should You Care About Pesticides?

There is growing consensus in the scientific community that small doses of pesticides and other chemicals can adversely affect people, especially during vulnerable periods of fetal development and childhood when exposures can have long lasting effects. Because the toxic effects of pesticides are worrisome, not well understood, or in some cases completely unstudied, shoppers are wise to minimize exposure to pesticides whenever possible.

Will Washing and Peeling Help?

Nearly all of the data used to create these lists already considers how people typically wash and prepare produce (for example, apples are washed before testing, bananas are peeled). While washing and rinsing fresh produce may reduce levels of some pesticides, it does not eliminate them. Peeling also reduces exposures, but valuable nutrients often go down the drain with the peel. The best option is to eat a varied diet, wash all produce, and choose organic when possible to reduce exposure to potentially harmful chemicals.

How This Guide Was Developed

The produce ranking was developed by analysts at the not-for-profit Environmental Working Group (EWG) based on the results of nearly 43,000 tests for pesticides on produce collected by the U.S. Department of Agriculture and the U.S. Food and Drug Administration between 2000 and 2004. EWG is a not-for-profit environmental research organization dedicated to improving public health and protecting the environment by reducing pollution in air, water and food. For more information please visit www.ewg.org.