

US EPA ARCHIVE DOCUMENT

90th Percentile Risks from Application of Fertilizer Products
Chromium (Child)

Climate Region	Product	Soil Ingestion	Fruit Ingestion	Vegetable Ingestion	Below-ground Vegetable Ingestion	Beef Ingestion	Milk Ingestion	Fish Ingestion	Direct Inhalation	All Indirect Pathways Combined ¹
Seattle, WA	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00005	0.00000	0.00000	0.00000	0.00005	0.00005	0.00000	0.00000	0.00011
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00500	0.00010	0.00030	0.00002	0.00500	0.00600	0.00000	0.00000	0.01142
	Micronutrients	0.00005	0.00000	0.00000	0.00000	0.00007	0.00009	0.00000	0.00000	0.00017
	Mn	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001
	NPK as N	0.00100	0.00004	0.00008	0.00001	0.00100	0.00100	0.00000	0.00000	0.00213
	NPK for P2O5	0.00020	0.00001	0.00002	0.00000	0.00030	0.00030	0.00000	0.00000	0.00063
	P2O5 - 1	0.00070	0.00003	0.00004	0.00001	0.00090	0.00100	0.00000	0.00000	0.00198
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	S as Nutrient	0.00006	0.00000	0.00000	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00020	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00042
	Albuquerque, NM	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Gypsum Products		0.00040	0.00001	0.00001	0.00000	0.00040	0.00030	0.00000	0.00000	0.00072
Iron		NA	NA	NA	NA	NA	NA	NA	NA	NA
Liming Materials		0.04000	0.00080	0.00200	0.00020	0.04000	0.04000	0.00000	0.00000	0.08300
Micronutrients		0.00040	0.00001	0.00002	0.00000	0.00050	0.00060	0.00000	0.00000	0.00113
Mn		0.00002	0.00000	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00004
NPK as N		0.00900	0.00020	0.00040	0.00006	0.01000	0.01000	0.00000	0.00000	0.02066
NPK for P2O5		0.00200	0.00004	0.00008	0.00001	0.00200	0.00200	0.00000	0.00000	0.00413
P2O5 - 1		0.00600	0.00020	0.00020	0.00004	0.00600	0.00600	0.00000	0.00000	0.01244
Potash		0.00001	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00003
S as Nutrient		0.00060	0.00001	0.00003	0.00000	0.00071	0.00080	0.00000	0.00000	0.00155
S as Ph		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		0.00100	0.00003	0.00005	0.00001	0.00100	0.00100	0.00000	0.00000	0.00209
Atlanta, GA		Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00003	0.00000	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00008
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00400	0.00008	0.00020	0.00002	0.00400	0.00400	0.00000	0.00000	0.00830
	Micronutrients	0.00004	0.00000	0.00000	0.00000	0.00005	0.00006	0.00000	0.00000	0.00011
	Mn	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	NPK as N	0.00090	0.00002	0.00005	0.00001	0.00100	0.00100	0.00000	0.00000	0.00208
	NPK for P2O5	0.00020	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00042
	P2O5 - 1	0.00050	0.00002	0.00003	0.00000	0.00060	0.00060	0.00000	0.00000	0.00125
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	S as Nutrient	0.00004	0.00000	0.00000	0.00000	0.00007	0.00007	0.00000	0.00000	0.00014
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00010	0.00000	0.00001	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021

90th Percentile Risks from Application of Fertilizer Products
Chromium (Child)

Climate Region	Product	Soil Ingestion	Fruit Ingestion	Vegetable Ingestion	Below-ground Vegetable Ingestion	Beef Ingestion	Milk Ingestion	Fish Ingestion	Direct Inhalation	All Indirect Pathways Combined ¹
Bismarck, ND	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00010	0.00000	0.00000	0.00000	0.00010	0.00009	0.00000	0.00000	0.00020
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.01000	0.00020	0.00030	0.00005	0.01000	0.01000	0.00000	0.00000	0.02055
	Micronutrients	0.00010	0.00000	0.00001	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021
	Mn	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001
	NPK as N	0.00300	0.00006	0.00010	0.00002	0.00300	0.00300	0.00000	0.00000	0.00618
	NPK for P2O5	0.00050	0.00001	0.00002	0.00000	0.00050	0.00050	0.00000	0.00000	0.00103
	P2O5 - 1	0.00200	0.00004	0.00006	0.00001	0.00200	0.00200	0.00000	0.00000	0.00411
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001
	S as Nutrient	0.00010	0.00000	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00041
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00040	0.00001	0.00001	0.00000	0.00040	0.00030	0.00000	0.00000	0.00072
	Boise, ID	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Gypsum Products		0.00040	0.00001	0.00002	0.00000	0.00040	0.00040	0.00000	0.00000	0.00083
Iron		NA	NA	NA	NA	NA	NA	NA	NA	NA
Liming Materials		0.04000	0.00090	0.00200	0.00020	0.05000	0.05000	0.00000	0.00000	0.10310
Micronutrients		0.00040	0.00001	0.00002	0.00000	0.00060	0.00060	0.00000	0.00000	0.00123
Mn		0.00002	0.00000	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00004
NPK as N		0.01000	0.00020	0.00040	0.00006	0.01000	0.01000	0.00000	0.00000	0.02066
NPK for P2O5		0.00200	0.00005	0.00009	0.00001	0.00200	0.00200	0.00000	0.00000	0.00415
P2O5 - 1		0.00600	0.00020	0.00030	0.00004	0.00600	0.00600	0.00000	0.00000	0.01254
Potash		0.00001	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00003
S as Nutrient		0.00060	0.00002	0.00003	0.00000	0.00071	0.00090	0.00000	0.00000	0.00166
S as Ph		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		0.00100	0.00004	0.00005	0.00001	0.00100	0.00100	0.00000	0.00000	0.00210
Boulder, CO		Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00030	0.00001	0.00001	0.00000	0.00030	0.00030	0.00000	0.00000	0.00062
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.03000	0.00060	0.00100	0.00010	0.03000	0.03000	0.00000	0.00000	0.06170
	Micronutrients	0.00030	0.00001	0.00002	0.00000	0.00040	0.00040	0.00000	0.00000	0.00083
	Mn	0.00002	0.00000	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00004
	NPK as N	0.00700	0.00020	0.00030	0.00004	0.00700	0.00800	0.00000	0.00000	0.01554
	NPK for P2O5	0.00100	0.00003	0.00006	0.00001	0.00100	0.00100	0.00000	0.00000	0.00210
	P2O5 - 1	0.00400	0.00010	0.00020	0.00003	0.00400	0.00500	0.00000	0.00000	0.00933
	Potash	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00002
	S as Nutrient	0.00040	0.00001	0.00002	0.00000	0.00050	0.00060	0.00000	0.00000	0.00113
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00081	0.00002	0.00004	0.00001	0.00100	0.00100	0.00000	0.00000	0.00207

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Casper, WY	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00020	0.00000	0.00001	0.00000	0.00011	0.00010	0.00000	0.00000	0.00022
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.02000	0.00021	0.00050	0.00008	0.02000	0.01000	0.00000	0.00000	0.03079
	Micronutrients	0.00020	0.00000	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00041
	Mn	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00002
	NPK as N	0.00400	0.00008	0.00010	0.00003	0.00400	0.00400	0.00000	0.00000	0.00821
	NPK for P2O5	0.00080	0.00002	0.00003	0.00001	0.00080	0.00080	0.00000	0.00000	0.00166
	P2O5 - 1	0.00200	0.00006	0.00009	0.00002	0.00200	0.00200	0.00000	0.00000	0.00417
	Potash	0.00001	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00001
	S as Nutrient	0.00020	0.00000	0.00001	0.00000	0.00030	0.00030	0.00000	0.00000	0.00061
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00050	0.00001	0.00002	0.00000	0.00050	0.00050	0.00000	0.00000	0.00103
	Charleston, SC	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Gypsum Products		0.00004	0.00000	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00008
Iron		NA	NA	NA	NA	NA	NA	NA	NA	NA
Liming Materials		0.00400	0.00008	0.00020	0.00002	0.00400	0.00400	0.00000	0.00000	0.00830
Micronutrients		0.00004	0.00000	0.00000	0.00000	0.00005	0.00006	0.00000	0.00000	0.00011
Mn		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NPK as N		0.00090	0.00002	0.00005	0.00001	0.00100	0.00100	0.00000	0.00000	0.00208
NPK for P2O5		0.00020	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00042
P2O5 - 1		0.00060	0.00002	0.00003	0.00000	0.00060	0.00060	0.00000	0.00000	0.00125
Potash		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
S as Nutrient		0.00005	0.00000	0.00000	0.00000	0.00007	0.00007	0.00000	0.00000	0.00014
S as Ph		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		0.00010	0.00000	0.00001	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021
Chicago, IL		Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00005	0.00000	0.00000	0.00000	0.00006	0.00006	0.00000	0.00000	0.00013
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00600	0.00010	0.00040	0.00003	0.00600	0.00700	0.00000	0.00000	0.01353
	Micronutrients	0.00006	0.00000	0.00001	0.00000	0.00009	0.00010	0.00000	0.00000	0.00020
	Mn	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001
	NPK as N	0.00100	0.00004	0.00009	0.00001	0.00200	0.00200	0.00000	0.00000	0.00414
	NPK for P2O5	0.00020	0.00001	0.00002	0.00000	0.00030	0.00040	0.00000	0.00000	0.00073
	P2O5 - 1	0.00081	0.00003	0.00005	0.00001	0.00100	0.00100	0.00000	0.00000	0.00209
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	S as Nutrient	0.00007	0.00000	0.00001	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00020	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00042

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Chromium (Child)

Climate Region	Product	Soil Ingestion	Fruit Ingestion	Vegetable Ingestion	Below-ground Vegetable Ingestion	Beef Ingestion	Milk Ingestion	Fish Ingestion	Direct Inhalation	All Indirect Pathways Combined ¹
Cleveland, OH	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00005	0.00000	0.00000	0.00000	0.00006	0.00006	0.00000	0.00000	0.00013
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00500	0.00010	0.00031	0.00002	0.00600	0.00600	0.00000	0.00000	0.01243
	Micronutrients	0.00005	0.00000	0.00001	0.00000	0.00008	0.00010	0.00000	0.00000	0.00019
	Mn	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001
	NPK as N	0.00100	0.00004	0.00009	0.00001	0.00100	0.00200	0.00000	0.00000	0.00314
	NPK for P2O5	0.00020	0.00001	0.00002	0.00000	0.00030	0.00030	0.00000	0.00000	0.00063
	P2O5 - 1	0.00080	0.00003	0.00005	0.00001	0.00090	0.00100	0.00000	0.00000	0.00199
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	S as Nutrient	0.00006	0.00000	0.00001	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00020	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00042
	Fresno, CA	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Gypsum Products		0.00040	0.00001	0.00001	0.00000	0.00040	0.00031	0.00000	0.00000	0.00073
Iron		NA	NA	NA	NA	NA	NA	NA	NA	NA
Liming Materials		0.04000	0.00080	0.00200	0.00020	0.04000	0.04000	0.00000	0.00000	0.08300
Micronutrients		0.00040	0.00001	0.00002	0.00000	0.00060	0.00060	0.00000	0.00000	0.00123
Mn		0.00002	0.00000	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00004
NPK as N		0.01000	0.00020	0.00040	0.00006	0.01000	0.01000	0.00000	0.00000	0.02066
NPK for P2O5		0.00200	0.00004	0.00008	0.00001	0.00200	0.00200	0.00000	0.00000	0.00413
P2O5 - 1		0.00600	0.00020	0.00020	0.00004	0.00600	0.00600	0.00000	0.00000	0.01244
Potash		0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00002
S as Nutrient		0.00060	0.00002	0.00003	0.00000	0.00071	0.00080	0.00000	0.00000	0.00156
S as Ph		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		0.00100	0.00003	0.00005	0.00001	0.00100	0.00100	0.00000	0.00000	0.00209
Grand Island, NE		Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00010	0.00000	0.00000	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.01000	0.00020	0.00040	0.00005	0.01000	0.01000	0.00000	0.00000	0.02065
	Micronutrients	0.00010	0.00000	0.00001	0.00000	0.00010	0.00020	0.00000	0.00000	0.00031
	Mn	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001
	NPK as N	0.00300	0.00006	0.00010	0.00002	0.00300	0.00300	0.00000	0.00000	0.00618
	NPK for P2O5	0.00050	0.00001	0.00002	0.00000	0.00060	0.00050	0.00000	0.00000	0.00113
	P2O5 - 1	0.00200	0.00005	0.00006	0.00001	0.00200	0.00200	0.00000	0.00000	0.00412
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001
	S as Nutrient	0.00011	0.00000	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00041
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00040	0.00001	0.00001	0.00000	0.00040	0.00040	0.00000	0.00000	0.00082

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Harrisburg, PA	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00004	0.00000	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00008
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00500	0.00008	0.00020	0.00002	0.00410	0.00500	0.00000	0.00000	0.00940
	Micronutrients	0.00005	0.00000	0.00000	0.00000	0.00006	0.00007	0.00000	0.00000	0.00013
	Mn	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001
	NPK as N	0.00100	0.00003	0.00005	0.00001	0.00100	0.00100	0.00000	0.00000	0.00209
	NPK for P2O5	0.00020	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00042
	P2O5 - 1	0.00070	0.00002	0.00003	0.00001	0.00070	0.00070	0.00000	0.00000	0.00146
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	S as Nutrient	0.00006	0.00000	0.00000	0.00000	0.00008	0.00008	0.00000	0.00000	0.00016
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00010	0.00000	0.00001	0.00000	0.00010	0.00020	0.00000	0.00000	0.00031
	Hartford, CT	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Gypsum Products		0.00004	0.00000	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00008
Iron		NA	NA	NA	NA	NA	NA	NA	NA	NA
Liming Materials		0.00400	0.00007	0.00010	0.00002	0.00400	0.00400	0.00000	0.00000	0.00819
Micronutrients		0.00004	0.00000	0.00000	0.00000	0.00005	0.00006	0.00000	0.00000	0.00011
Mn		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NPK as N		0.00100	0.00002	0.00004	0.00001	0.00100	0.00100	0.00000	0.00000	0.00207
NPK for P2O5		0.00020	0.00000	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00041
P2O5 - 1		0.00060	0.00002	0.00003	0.00000	0.00060	0.00060	0.00000	0.00000	0.00125
Potash		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
S as Nutrient		0.00005	0.00000	0.00000	0.00000	0.00007	0.00007	0.00000	0.00000	0.00014
S as Ph		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		0.00010	0.00000	0.00001	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021
Houston, TX		Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00004	0.00000	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00008
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00500	0.00007	0.00020	0.00002	0.00400	0.00400	0.00000	0.00000	0.00829
	Micronutrients	0.00005	0.00000	0.00000	0.00000	0.00006	0.00006	0.00000	0.00000	0.00012
	Mn	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001
	NPK as N	0.00100	0.00002	0.00004	0.00001	0.00100	0.00100	0.00000	0.00000	0.00207
	NPK for P2O5	0.00020	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00042
	P2O5 - 1	0.00070	0.00002	0.00003	0.00001	0.00070	0.00070	0.00000	0.00000	0.00146
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	S as Nutrient	0.00006	0.00000	0.00000	0.00000	0.00008	0.00007	0.00000	0.00000	0.00015
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00010	0.00000	0.00001	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021

90th Percentile Risks from Application of Fertilizer Products
Chromium (Child)

Climate Region	Product	Soil Ingestion	Fruit Ingestion	Vegetable Ingestion	Below-ground Vegetable Ingestion	Beef Ingestion	Milk Ingestion	Fish Ingestion	Direct Inhalation	All Indirect Pathways Combined ¹
Huntington, WV	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00004	0.00000	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00008
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00400	0.00009	0.00020	0.00002	0.00400	0.00500	0.00000	0.00000	0.00931
	Micronutrients	0.00004	0.00000	0.00000	0.00000	0.00006	0.00006	0.00000	0.00000	0.00013
	Mn	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001
	NPK as N	0.00100	0.00003	0.00005	0.00001	0.00100	0.00100	0.00000	0.00000	0.00209
	NPK for P2O5	0.00020	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00042
	P2O5 - 1	0.00061	0.00002	0.00003	0.00001	0.00070	0.00070	0.00000	0.00000	0.00146
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	S as Nutrient	0.00005	0.00000	0.00000	0.00000	0.00008	0.00007	0.00000	0.00000	0.00016
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00010	0.00000	0.00001	0.00000	0.00010	0.00011	0.00000	0.00000	0.00022
	Las Vegas, NV	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Gypsum Products		0.00040	0.00001	0.00001	0.00000	0.00030	0.00030	0.00000	0.00000	0.00062
Iron		NA	NA	NA	NA	NA	NA	NA	NA	NA
Liming Materials		0.04000	0.00070	0.00100	0.00020	0.04000	0.04000	0.00000	0.00000	0.08190
Micronutrients		0.00040	0.00001	0.00002	0.00000	0.00050	0.00050	0.00000	0.00000	0.00103
Mn		0.00002	0.00000	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00004
NPK as N		0.00910	0.00020	0.00031	0.00006	0.01000	0.00900	0.00000	0.00000	0.01957
NPK for P2O5		0.00200	0.00004	0.00006	0.00001	0.00200	0.00200	0.00000	0.00000	0.00411
P2O5 - 1		0.00600	0.00011	0.00020	0.00004	0.00600	0.00600	0.00000	0.00000	0.01235
Potash		0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00002
S as Nutrient		0.00060	0.00001	0.00002	0.00000	0.00070	0.00070	0.00000	0.00000	0.00143
S as Ph		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		0.00100	0.00003	0.00004	0.00001	0.00100	0.00100	0.00000	0.00000	0.00208
Los Angeles, CA		Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00020	0.00000	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00041
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.02000	0.00040	0.00080	0.00008	0.02000	0.02000	0.00000	0.00000	0.04128
	Micronutrients	0.00020	0.00001	0.00001	0.00000	0.00021	0.00030	0.00000	0.00000	0.00053
	Mn	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00002
	NPK as N	0.00400	0.00010	0.00020	0.00003	0.00500	0.00500	0.00000	0.00000	0.01033
	NPK for P2O5	0.00080	0.00002	0.00004	0.00001	0.00090	0.00090	0.00000	0.00000	0.00187
	P2O5 - 1	0.00300	0.00008	0.00010	0.00002	0.00300	0.00300	0.00000	0.00000	0.00620
	Potash	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001
	S as Nutrient	0.00020	0.00001	0.00001	0.00000	0.00030	0.00040	0.00000	0.00000	0.00072
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00050	0.00001	0.00002	0.00000	0.00060	0.00060	0.00000	0.00000	0.00123

90th Percentile Risks from Application of Fertilizer Products
Chromium (Child)

Climate Region	Product	Soil Ingestion	Fruit Ingestion	Vegetable Ingestion	Below-ground Vegetable Ingestion	Beef Ingestion	Milk Ingestion	Fish Ingestion	Direct Inhalation	All Indirect Pathways Combined ¹
Memphis, TN	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00003	0.00000	0.00000	0.00000	0.00003	0.00003	0.00000	0.00000	0.00006
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00300	0.00007	0.00020	0.00001	0.00300	0.00400	0.00000	0.00000	0.00728
	Micronutrients	0.00003	0.00000	0.00000	0.00000	0.00004	0.00005	0.00000	0.00000	0.00009
	Mn	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	NPK as N	0.00080	0.00002	0.00005	0.00001	0.00080	0.00090	0.00000	0.00000	0.00178
	NPK for P2O5	0.00010	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00042
	P2O5 - 1	0.00050	0.00002	0.00003	0.00000	0.00060	0.00060	0.00000	0.00000	0.00125
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	S as Nutrient	0.00004	0.00000	0.00000	0.00000	0.00006	0.00006	0.00000	0.00000	0.00012
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00009	0.00000	0.00001	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021
	Miami, FL	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Gypsum Products		0.00004	0.00000	0.00000	0.00000	0.00003	0.00003	0.00000	0.00000	0.00006
Iron		NA	NA	NA	NA	NA	NA	NA	NA	NA
Liming Materials		0.00400	0.00006	0.00010	0.00002	0.00400	0.00300	0.00000	0.00000	0.00718
Micronutrients		0.00004	0.00000	0.00000	0.00000	0.00005	0.00005	0.00000	0.00000	0.00010
Mn		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NPK as N		0.00090	0.00002	0.00003	0.00001	0.00090	0.00090	0.00000	0.00000	0.00186
NPK for P2O5		0.00020	0.00000	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00041
P2O5 - 1		0.00060	0.00002	0.00002	0.00000	0.00060	0.00060	0.00000	0.00000	0.00124
Potash		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
S as Nutrient		0.00005	0.00000	0.00000	0.00000	0.00006	0.00006	0.00000	0.00000	0.00012
S as Ph		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		0.00010	0.00000	0.00000	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021
Minneapolis, MN		Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00009	0.00000	0.00001	0.00000	0.00010	0.00009	0.00000	0.00000	0.00020
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00910	0.00020	0.00050	0.00004	0.01000	0.01000	0.00000	0.00000	0.02074
	Micronutrients	0.00009	0.00000	0.00001	0.00000	0.00010	0.00020	0.00000	0.00000	0.00031
	Mn	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001
	NPK as N	0.00200	0.00006	0.00010	0.00001	0.00200	0.00300	0.00000	0.00000	0.00517
	NPK for P2O5	0.00040	0.00001	0.00003	0.00000	0.00050	0.00050	0.00000	0.00000	0.00104
	P2O5 - 1	0.00100	0.00005	0.00007	0.00001	0.00200	0.00200	0.00000	0.00000	0.00413
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001
	S as Nutrient	0.00010	0.00000	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00041
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00030	0.00001	0.00002	0.00000	0.00030	0.00030	0.00000	0.00000	0.00063

90th Percentile Risks from Application of Fertilizer Products
Chromium (Child)

Climate Region	Product	Soil Ingestion	Fruit Ingestion	Vegetable Ingestion	Below-ground Vegetable Ingestion	Beef Ingestion	Milk Ingestion	Fish Ingestion	Direct Inhalation	All Indirect Pathways Combined ¹
Philadelphia, PA	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00004	0.00000	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00008
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00400	0.00008	0.00020	0.00002	0.00400	0.00400	0.00000	0.00000	0.00830
	Micronutrients	0.00004	0.00000	0.00000	0.00000	0.00006	0.00006	0.00000	0.00000	0.00012
	Mn	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	NPK as N	0.00100	0.00002	0.00005	0.00001	0.00100	0.00100	0.00000	0.00000	0.00208
	NPK for P2O5	0.00020	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00042
	P2O5 - 1	0.00060	0.00002	0.00003	0.00000	0.00070	0.00070	0.00000	0.00000	0.00145
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	S as Nutrient	0.00005	0.00000	0.00000	0.00000	0.00007	0.00007	0.00000	0.00000	0.00014
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00010	0.00000	0.00001	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021
	Phoenix, AZ	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Gypsum Products		0.00040	0.00001	0.00001	0.00000	0.00040	0.00030	0.00000	0.00000	0.00072
Iron		NA	NA	NA	NA	NA	NA	NA	NA	NA
Liming Materials		0.04000	0.00070	0.00100	0.00020	0.04000	0.04000	0.00000	0.00000	0.08190
Micronutrients		0.00040	0.00001	0.00002	0.00000	0.00050	0.00050	0.00000	0.00000	0.00103
Mn		0.00002	0.00000	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00004
NPK as N		0.01000	0.00020	0.00040	0.00006	0.01000	0.00900	0.00000	0.00000	0.01966
NPK for P2O5		0.00200	0.00004	0.00007	0.00001	0.00200	0.00200	0.00000	0.00000	0.00412
P2O5 - 1		0.00600	0.00010	0.00020	0.00004	0.00600	0.00600	0.00000	0.00000	0.01234
Potash		0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00002
S as Nutrient		0.00060	0.00001	0.00002	0.00000	0.00061	0.00080	0.00000	0.00000	0.00144
S as Ph		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		0.00100	0.00003	0.00004	0.00001	0.00100	0.00100	0.00000	0.00000	0.00208
Portland, ME		Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00003	0.00000	0.00000	0.00000	0.00003	0.00003	0.00000	0.00000	0.00006
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00300	0.00007	0.00020	0.00001	0.00300	0.00310	0.00000	0.00000	0.00638
	Micronutrients	0.00003	0.00000	0.00000	0.00000	0.00004	0.00005	0.00000	0.00000	0.00009
	Mn	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	NPK as N	0.00071	0.00002	0.00004	0.00001	0.00080	0.00090	0.00000	0.00000	0.00177
	NPK for P2O5	0.00010	0.00000	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00041
	P2O5 - 1	0.00050	0.00002	0.00003	0.00000	0.00050	0.00051	0.00000	0.00000	0.00106
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	S as Nutrient	0.00004	0.00000	0.00000	0.00000	0.00006	0.00006	0.00000	0.00000	0.00012
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00009	0.00000	0.00001	0.00000	0.00010	0.00010	0.00000	0.00000	0.00021

90th Percentile Risks from Application of Fertilizer Products
Chromium (Child)

Climate Region	Product	Soil Ingestion	Fruit Ingestion	Vegetable Ingestion	Below-ground Vegetable Ingestion	Beef Ingestion	Milk Ingestion	Fish Ingestion	Direct Inhalation	All Indirect Pathways Combined ¹
Raleigh-Durham, NC	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00004	0.00000	0.00000	0.00000	0.00004	0.00005	0.00000	0.00000	0.00009
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.00400	0.00010	0.00030	0.00002	0.00500	0.00500	0.00000	0.00000	0.01042
	Micronutrients	0.00004	0.00000	0.00000	0.00000	0.00006	0.00007	0.00000	0.00000	0.00014
	Mn	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001
	NPK as N	0.00100	0.00003	0.00007	0.00001	0.00100	0.00100	0.00000	0.00000	0.00211
	NPK for P2O5	0.00020	0.00001	0.00001	0.00000	0.00020	0.00030	0.00000	0.00000	0.00052
	P2O5 - 1	0.00061	0.00002	0.00004	0.00001	0.00080	0.00080	0.00000	0.00000	0.00167
	Potash	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	S as Nutrient	0.00005	0.00000	0.00000	0.00000	0.00008	0.00009	0.00000	0.00000	0.00018
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00010	0.00000	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00041
	Salem, OR	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Gypsum Products		0.00004	0.00000	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00008
Iron		NA	NA	NA	NA	NA	NA	NA	NA	NA
Liming Materials		0.00500	0.00008	0.00020	0.00002	0.00410	0.00500	0.00000	0.00000	0.00940
Micronutrients		0.00005	0.00000	0.00000	0.00000	0.00006	0.00007	0.00000	0.00000	0.00013
Mn		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NPK as N		0.00100	0.00002	0.00005	0.00001	0.00100	0.00100	0.00000	0.00000	0.00208
NPK for P2O5		0.00020	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00042
P2O5 - 1		0.00070	0.00002	0.00003	0.00001	0.00070	0.00070	0.00000	0.00000	0.00146
Potash		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
S as Nutrient		0.00006	0.00000	0.00000	0.00000	0.00008	0.00008	0.00000	0.00000	0.00016
S as Ph		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		0.00010	0.00000	0.00001	0.00000	0.00010	0.00020	0.00000	0.00000	0.00031
Salt Lake City, UT		Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00040	0.00001	0.00002	0.00000	0.00040	0.00040	0.00000	0.00000	0.00083
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.05000	0.00100	0.00200	0.00020	0.05000	0.05000	0.00000	0.00000	0.10320
	Micronutrients	0.00050	0.00001	0.00003	0.00000	0.00060	0.00070	0.00000	0.00000	0.00134
	Mn	0.00002	0.00000	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00004
	NPK as N	0.01000	0.00030	0.00050	0.00007	0.01000	0.01000	0.00000	0.00000	0.02087
	NPK for P2O5	0.00200	0.00005	0.00010	0.00001	0.00200	0.00200	0.00000	0.00000	0.00416
	P2O5 - 1	0.00600	0.00020	0.00030	0.00004	0.00700	0.00700	0.00000	0.00000	0.01454
	Potash	0.00001	0.00000	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00004
	S as Nutrient	0.00070	0.00002	0.00004	0.00000	0.00090	0.00100	0.00000	0.00000	0.00196
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00100	0.00004	0.00007	0.00001	0.00200	0.00200	0.00000	0.00000	0.00412

90th Percentile Risks from Application of Fertilizer Products
Chromium (Child)

Climate Region	Product	Soil Ingestion	Fruit Ingestion	Vegetable Ingestion	Below-ground Vegetable Ingestion	Beef Ingestion	Milk Ingestion	Fish Ingestion	Direct Inhalation	All Indirect Pathways Combined ¹
San Francisco, CA	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Gypsum Products	0.00020	0.00001	0.00001	0.00000	0.00020	0.00020	0.00000	0.00000	0.00041
	Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Liming Materials	0.02000	0.00040	0.00080	0.00010	0.02000	0.02000	0.00000	0.00000	0.04130
	Micronutrients	0.00020	0.00001	0.00001	0.00000	0.00030	0.00030	0.00000	0.00000	0.00062
	Mn	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00002
	NPK as N	0.00500	0.00010	0.00020	0.00003	0.00500	0.00500	0.00000	0.00000	0.01033
	NPK for P2O5	0.00100	0.00002	0.00004	0.00001	0.00100	0.00090	0.00000	0.00000	0.00197
	P2O5 - 1	0.00300	0.00008	0.00010	0.00002	0.00300	0.00300	0.00000	0.00000	0.00620
	Potash	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001
	S as Nutrient	0.00030	0.00001	0.00001	0.00000	0.00030	0.00040	0.00000	0.00000	0.00072
	S as Ph	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	0.00060	0.00002	0.00002	0.00000	0.00070	0.00070	0.00000	0.00000	0.00144
	Winnemucca, NV	Boron	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Gypsum Products		0.00030	0.00001	0.00001	0.00000	0.00030	0.00020	0.00000	0.00000	0.00052
Iron		NA	NA	NA	NA	NA	NA	NA	NA	NA
Liming Materials		0.03000	0.00050	0.00080	0.00010	0.03000	0.03000	0.00000	0.00000	0.06140
Micronutrients		0.00030	0.00001	0.00001	0.00000	0.00040	0.00040	0.00000	0.00000	0.00082
Mn		0.00002	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00002
NPK as N		0.00800	0.00010	0.00020	0.00005	0.00700	0.00700	0.00000	0.00000	0.01435
NPK for P2O5		0.00100	0.00003	0.00005	0.00001	0.00100	0.00100	0.00000	0.00000	0.00209
P2O5 - 1		0.00400	0.00010	0.00010	0.00003	0.00400	0.00400	0.00000	0.00000	0.00823
Potash		0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00002
S as Nutrient		0.00040	0.00001	0.00001	0.00000	0.00050	0.00050	0.00000	0.00000	0.00102
S as Ph		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		0.00090	0.00002	0.00003	0.00001	0.00090	0.00090	0.00000	0.00000	0.00186

¹ All Indirect Pathways Combined includes Fruit, Vegetable, Below-ground Vegetable, Beef, and Milk Ingestion. Numbers less than 0.00001 appear as a default of 0.00000.