

US EPA ARCHIVE DOCUMENT

50th Percentile Risks from Application of Fertilizer Products  
Arsenic (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
Seattle, WA	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	2.E-13	2.E-09	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	7.E-13	4.E-09	9.E-08
	Iron	2.E-08	4.E-09	7.E-09	7.E-10	2.E-08	4.E-09	3.E-13	1.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	4.E-08	3.E-12	2.E-08	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	5.E-10	1.E-10	7.E-15	2.E-11	8.E-10
	Mn	3.E-10	6.E-11	9.E-11	8.E-12	3.E-10	5.E-11	4.E-15	2.E-11	6.E-10
	NPK as N	3.E-08	5.E-09	9.E-09	6.E-10	3.E-08	5.E-09	3.E-13	2.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	2.E-13	9.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	2.E-13	8.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	2.E-10	2.E-11	2.E-15	9.E-12	3.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	4.E-10	6.E-11	4.E-15	2.E-11	6.E-10
	S as Ph	2.E-08	4.E-09	6.E-09	5.E-10	2.E-08	3.E-09	3.E-13	2.E-09	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	3.E-09	4.E-10	3.E-14	2.E-10	4.E-09
	Albuquerque, NM	Boron	1.E-08	2.E-09	4.E-09	6.E-10	2.E-08	3.E-09	9.E-14	8.E-10
Gypsum Products		5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	4.E-13	2.E-09	9.E-08
Iron		2.E-08	4.E-09	7.E-09	8.E-10	2.E-08	3.E-09	2.E-13	7.E-10	4.E-08
Liming Materials		2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	3.E-08	1.E-12	9.E-09	4.E-07
Micronutrients		5.E-10	8.E-11	1.E-10	2.E-11	5.E-10	9.E-11	3.E-15	1.E-11	8.E-10
Mn		3.E-10	6.E-11	8.E-11	8.E-12	4.E-10	5.E-11	2.E-15	1.E-11	6.E-10
NPK as N		3.E-08	5.E-09	9.E-09	7.E-10	3.E-08	4.E-09	2.E-13	1.E-09	5.E-08
NPK for P2O5		1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	9.E-14	5.E-10	2.E-08
P2O5 - 1		1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	9.E-14	5.E-10	2.E-08
Potash		2.E-10	3.E-11	4.E-11	4.E-12	2.E-10	2.E-11	1.E-15	5.E-12	3.E-10
S as Nutrient		3.E-10	7.E-11	1.E-10	1.E-11	3.E-10	6.E-11	2.E-15	1.E-11	6.E-10
S as Ph		2.E-08	4.E-09	6.E-09	6.E-10	2.E-08	3.E-09	1.E-13	8.E-10	3.E-08
Zinc		2.E-09	4.E-10	6.E-10	6.E-11	2.E-09	4.E-10	1.E-14	1.E-10	4.E-09
Atlanta, GA		Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	7.E-14	1.E-09
	Gypsum Products	4.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	2.E-13	2.E-09	9.E-08
	Iron	2.E-08	4.E-09	6.E-09	7.E-10	2.E-08	3.E-09	1.E-13	8.E-10	4.E-08
	Liming Materials	2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	9.E-13	1.E-08	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	5.E-10	9.E-11	2.E-15	1.E-11	8.E-10
	Mn	3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	1.E-15	1.E-11	5.E-10
	NPK as N	2.E-08	5.E-09	8.E-09	6.E-10	3.E-08	4.E-09	1.E-13	1.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	5.E-14	5.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	5.E-14	5.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	7.E-16	5.E-12	2.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	9.E-12	3.E-10	5.E-11	1.E-15	1.E-11	6.E-10
	S as Ph	2.E-08	3.E-09	6.E-09	5.E-10	2.E-08	3.E-09	8.E-14	9.E-10	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	4.E-10	9.E-15	1.E-10	4.E-09

50th Percentile Risks from Application of Fertilizer Products  
Arsenic (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
Bismarck, ND	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	2.E-13	3.E-09	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	8.E-13	7.E-09	9.E-08
	Iron	2.E-08	4.E-09	6.E-09	7.E-10	2.E-08	3.E-09	3.E-13	2.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	3.E-12	3.E-08	4.E-07
	Micronutrients	5.E-10	8.E-11	1.E-10	2.E-11	5.E-10	9.E-11	8.E-15	3.E-11	8.E-10
	Mn	3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	4.E-15	3.E-11	5.E-10
	NPK as N	3.E-08	5.E-09	9.E-09	7.E-10	3.E-08	4.E-09	4.E-13	4.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	2.E-13	2.E-09	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	2.E-13	2.E-09	2.E-08
	Potash	2.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	2.E-15	2.E-11	2.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	3.E-10	5.E-11	5.E-15	4.E-11	6.E-10
	S as Ph	2.E-08	3.E-09	6.E-09	5.E-10	2.E-08	3.E-09	3.E-13	3.E-09	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	3.E-10	3.E-14	4.E-10	4.E-09
	Boise, ID	Boron	1.E-08	2.E-09	4.E-09	6.E-10	2.E-08	3.E-09	2.E-13	2.E-09
Gypsum Products		5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	7.E-13	3.E-09	1.E-07
Iron		2.E-08	4.E-09	7.E-09	8.E-10	3.E-08	4.E-09	3.E-13	1.E-09	4.E-08
Liming Materials		2.E-07	4.E-08	7.E-08	7.E-09	3.E-07	4.E-08	3.E-12	1.E-08	4.E-07
Micronutrients		5.E-10	9.E-11	1.E-10	2.E-11	5.E-10	1.E-10	7.E-15	2.E-11	8.E-10
Mn		3.E-10	6.E-11	9.E-11	9.E-12	4.E-10	5.E-11	4.E-15	2.E-11	6.E-10
NPK as N		3.E-08	6.E-09	9.E-09	7.E-10	3.E-08	5.E-09	4.E-13	2.E-09	5.E-08
NPK for P2O5		1.E-08	2.E-09	4.E-09	4.E-10	1.E-08	2.E-09	2.E-13	8.E-10	2.E-08
P2O5 - 1		1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	2.E-13	8.E-10	2.E-08
Potash		2.E-10	3.E-11	4.E-11	4.E-12	2.E-10	2.E-11	2.E-15	8.E-12	3.E-10
S as Nutrient		3.E-10	7.E-11	1.E-10	1.E-11	4.E-10	6.E-11	5.E-15	2.E-11	6.E-10
S as Ph		2.E-08	4.E-09	6.E-09	6.E-10	2.E-08	3.E-09	2.E-13	1.E-09	4.E-08
Zinc		2.E-09	4.E-10	6.E-10	6.E-11	3.E-09	4.E-10	3.E-14	2.E-10	4.E-09
Boulder, CO		Boron	1.E-08	2.E-09	4.E-09	6.E-10	2.E-08	3.E-09	2.E-13	9.E-09
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	7.E-13	2.E-08	1.E-07
	Iron	2.E-08	4.E-09	7.E-09	8.E-10	3.E-08	4.E-09	3.E-13	8.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	4.E-08	3.E-12	1.E-07	4.E-07
	Micronutrients	5.E-10	8.E-11	1.E-10	2.E-11	5.E-10	9.E-11	7.E-15	1.E-10	8.E-10
	Mn	3.E-10	6.E-11	9.E-11	9.E-12	4.E-10	5.E-11	4.E-15	1.E-10	6.E-10
	NPK as N	3.E-08	6.E-09	9.E-09	7.E-10	3.E-08	5.E-09	3.E-13	1.E-08	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	2.E-13	6.E-09	2.E-08
	P2O5 - 1	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	2.E-13	6.E-09	2.E-08
	Potash	2.E-10	3.E-11	4.E-11	4.E-12	2.E-10	2.E-11	2.E-15	6.E-11	3.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	4.E-10	6.E-11	4.E-15	1.E-10	6.E-10
	S as Ph	2.E-08	4.E-09	6.E-09	6.E-10	2.E-08	3.E-09	2.E-13	1.E-08	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	6.E-11	3.E-09	4.E-10	3.E-14	1.E-09	4.E-09

50th Percentile Risks from Application of Fertilizer Products  
Arsenic (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
Casper, WY	Boron	1.E-08	2.E-09	4.E-09	6.E-10	2.E-08	3.E-09	3.E-13	5.E-09	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	9.E-13	9.E-09	9.E-08
	Iron	2.E-08	4.E-09	6.E-09	7.E-10	2.E-08	3.E-09	4.E-13	3.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	4.E-12	4.E-08	4.E-07
	Micronutrients	5.E-10	8.E-11	1.E-10	2.E-11	5.E-10	9.E-11	9.E-15	4.E-11	8.E-10
	Mn	3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	6.E-15	5.E-11	5.E-10
	NPK as N	3.E-08	5.E-09	9.E-09	7.E-10	3.E-08	4.E-09	5.E-13	5.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	2.E-13	2.E-09	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	2.E-13	2.E-09	2.E-08
	Potash	2.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	3.E-15	2.E-11	2.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	3.E-10	5.E-11	6.E-15	5.E-11	6.E-10
	S as Ph	2.E-08	4.E-09	6.E-09	6.E-10	2.E-08	3.E-09	3.E-13	4.E-09	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	3.E-10	4.E-14	5.E-10	4.E-09
Charleston, SC	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	8.E-13	6.E-10	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	3.E-12	1.E-09	9.E-08
	Iron	2.E-08	4.E-09	6.E-09	7.E-10	2.E-08	3.E-09	1.E-12	5.E-10	4.E-08
	Liming Materials	2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	1.E-11	6.E-09	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	4.E-10	9.E-11	3.E-14	8.E-12	8.E-10
	Mn	3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	1.E-14	7.E-12	5.E-10
	NPK as N	2.E-08	5.E-09	8.E-09	6.E-10	3.E-08	4.E-09	1.E-12	8.E-10	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	6.E-13	4.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	6.E-13	3.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	8.E-15	3.E-12	2.E-10
	S as Nutrient	3.E-10	6.E-11	1.E-10	9.E-12	3.E-10	5.E-11	2.E-14	8.E-12	6.E-10
	S as Ph	2.E-08	3.E-09	6.E-09	5.E-10	2.E-08	3.E-09	9.E-13	6.E-10	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	3.E-10	1.E-13	7.E-11	4.E-09
Chicago, IL	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	5.E-13	1.E-09	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	2.E-12	2.E-09	1.E-07
	Iron	2.E-08	4.E-09	7.E-09	7.E-10	2.E-08	4.E-09	9.E-13	8.E-10	4.E-08
	Liming Materials	2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	4.E-08	9.E-12	1.E-08	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	5.E-10	1.E-10	2.E-14	1.E-11	8.E-10
	Mn	3.E-10	6.E-11	9.E-11	8.E-12	4.E-10	6.E-11	1.E-14	1.E-11	6.E-10
	NPK as N	3.E-08	6.E-09	9.E-09	7.E-10	3.E-08	5.E-09	1.E-12	1.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	5.E-13	6.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	5.E-13	6.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	2.E-10	3.E-11	6.E-15	6.E-12	3.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	4.E-10	6.E-11	1.E-14	1.E-11	6.E-10
	S as Ph	2.E-08	4.E-09	7.E-09	5.E-10	2.E-08	3.E-09	7.E-13	1.E-09	4.E-08
	Zinc	2.E-09	4.E-10	7.E-10	5.E-11	3.E-09	4.E-10	9.E-14	1.E-10	4.E-09

50th Percentile Risks from Application of Fertilizer Products  
Arsenic (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
Cleveland, OH	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	5.E-13	2.E-09	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	2.E-12	4.E-09	1.E-07
	Iron	2.E-08	4.E-09	7.E-09	7.E-10	2.E-08	4.E-09	9.E-13	1.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	7.E-08	7.E-09	3.E-07	4.E-08	8.E-12	2.E-08	4.E-07
	Micronutrients	5.E-10	8.E-11	1.E-10	2.E-11	5.E-10	1.E-10	2.E-14	2.E-11	8.E-10
	Mn	3.E-10	6.E-11	9.E-11	8.E-12	4.E-10	6.E-11	1.E-14	2.E-11	6.E-10
	NPK as N	3.E-08	5.E-09	9.E-09	6.E-10	3.E-08	5.E-09	1.E-12	2.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	5.E-13	9.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	5.E-13	9.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	2.E-10	3.E-11	6.E-15	9.E-12	3.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	4.E-10	6.E-11	1.E-14	2.E-11	6.E-10
	S as Ph	2.E-08	4.E-09	7.E-09	5.E-10	2.E-08	3.E-09	7.E-13	2.E-09	4.E-08
	Zinc	2.E-09	4.E-10	7.E-10	5.E-11	3.E-09	4.E-10	9.E-14	2.E-10	4.E-09
	Fresno, CA	Boron	1.E-08	2.E-09	4.E-09	6.E-10	2.E-08	3.E-09	2.E-13	1.E-09
Gypsum Products		5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	7.E-13	2.E-09	9.E-08
Iron		2.E-08	4.E-09	7.E-09	8.E-10	2.E-08	4.E-09	3.E-13	8.E-10	4.E-08
Liming Materials		2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	3.E-08	3.E-12	1.E-08	4.E-07
Micronutrients		5.E-10	8.E-11	1.E-10	2.E-11	5.E-10	9.E-11	7.E-15	1.E-11	8.E-10
Mn		3.E-10	6.E-11	8.E-11	9.E-12	4.E-10	5.E-11	4.E-15	1.E-11	6.E-10
NPK as N		3.E-08	5.E-09	9.E-09	7.E-10	3.E-08	4.E-09	3.E-13	1.E-09	5.E-08
NPK for P2O5		1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	2.E-13	6.E-10	2.E-08
P2O5 - 1		1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	1.E-13	6.E-10	2.E-08
Potash		2.E-10	3.E-11	4.E-11	4.E-12	2.E-10	2.E-11	2.E-15	6.E-12	3.E-10
S as Nutrient		3.E-10	7.E-11	1.E-10	1.E-11	4.E-10	6.E-11	4.E-15	1.E-11	6.E-10
S as Ph		2.E-08	4.E-09	6.E-09	6.E-10	2.E-08	3.E-09	2.E-13	1.E-09	3.E-08
Zinc		2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	4.E-10	3.E-14	1.E-10	4.E-09
Grand Island, NE		Boron	1.E-08	2.E-09	4.E-09	6.E-10	2.E-08	3.E-09	7.E-13	3.E-09
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	7.E-09	2.E-12	6.E-09	9.E-08
	Iron	2.E-08	4.E-09	7.E-09	8.E-10	2.E-08	3.E-09	1.E-12	2.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	3.E-08	9.E-12	3.E-08	4.E-07
	Micronutrients	5.E-10	8.E-11	1.E-10	2.E-11	5.E-10	9.E-11	2.E-14	3.E-11	8.E-10
	Mn	3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	1.E-14	3.E-11	5.E-10
	NPK as N	3.E-08	5.E-09	9.E-09	7.E-10	3.E-08	4.E-09	1.E-12	4.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	6.E-13	1.E-09	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	5.E-13	1.E-09	2.E-08
	Potash	2.E-10	3.E-11	4.E-11	4.E-12	2.E-10	2.E-11	7.E-15	1.E-11	2.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	3.E-10	6.E-11	2.E-14	3.E-11	6.E-10
	S as Ph	2.E-08	4.E-09	6.E-09	6.E-10	2.E-08	3.E-09	9.E-13	2.E-09	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	3.E-10	1.E-13	3.E-10	4.E-09

50th Percentile Risks from Application of Fertilizer Products  
Arsenic (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
Harrisburg, PA	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	6.E-13	1.E-09	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	2.E-12	3.E-09	9.E-08
	Iron	2.E-08	4.E-09	6.E-09	7.E-10	2.E-08	3.E-09	9.E-13	1.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	9.E-12	1.E-08	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	5.E-10	9.E-11	2.E-14	1.E-11	8.E-10
	Mn	3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	1.E-14	2.E-11	5.E-10
	NPK as N	3.E-08	5.E-09	9.E-09	6.E-10	3.E-08	4.E-09	1.E-12	2.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	5.E-13	8.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	5.E-13	7.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	6.E-15	7.E-12	2.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	3.E-10	5.E-11	1.E-14	2.E-11	6.E-10
	S as Ph	2.E-08	3.E-09	6.E-09	5.E-10	2.E-08	3.E-09	7.E-13	1.E-09	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	3.E-10	9.E-14	2.E-10	4.E-09
	Hartford, CT	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	6.E-13	8.E-10
Gypsum Products		5.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	2.E-12	2.E-09	8.E-08
Iron		2.E-08	4.E-09	6.E-09	7.E-10	2.E-08	3.E-09	8.E-13	8.E-10	4.E-08
Liming Materials		2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	8.E-12	1.E-08	4.E-07
Micronutrients		4.E-10	8.E-11	1.E-10	2.E-11	4.E-10	9.E-11	2.E-14	1.E-11	7.E-10
Mn		3.E-10	5.E-11	7.E-11	8.E-12	3.E-10	5.E-11	1.E-14	1.E-11	5.E-10
NPK as N		2.E-08	5.E-09	8.E-09	6.E-10	3.E-08	4.E-09	1.E-12	1.E-09	4.E-08
NPK for P2O5		1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	5.E-13	6.E-10	2.E-08
P2O5 - 1		1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	5.E-13	6.E-10	2.E-08
Potash		1.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	6.E-15	6.E-12	2.E-10
S as Nutrient		3.E-10	6.E-11	1.E-10	9.E-12	3.E-10	5.E-11	1.E-14	1.E-11	6.E-10
S as Ph		2.E-08	3.E-09	6.E-09	5.E-10	2.E-08	3.E-09	7.E-13	9.E-10	3.E-08
Zinc		2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	3.E-10	8.E-14	1.E-10	4.E-09
Houston, TX		Boron	1.E-08	2.E-09	3.E-09	5.E-10	2.E-08	3.E-09	1.E-12	8.E-10
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	5.E-12	2.E-09	8.E-08
	Iron	2.E-08	4.E-09	6.E-09	7.E-10	2.E-08	3.E-09	2.E-12	7.E-10	4.E-08
	Liming Materials	2.E-07	3.E-08	6.E-08	7.E-09	2.E-07	3.E-08	2.E-11	9.E-09	3.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	4.E-10	9.E-11	5.E-14	1.E-11	7.E-10
	Mn	3.E-10	5.E-11	7.E-11	8.E-12	3.E-10	5.E-11	3.E-14	1.E-11	5.E-10
	NPK as N	2.E-08	5.E-09	8.E-09	6.E-10	3.E-08	4.E-09	3.E-12	1.E-09	4.E-08
	NPK for P2O5	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	1.E-12	5.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	1.E-12	5.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	2.E-14	5.E-12	2.E-10
	S as Nutrient	3.E-10	6.E-11	9.E-11	9.E-12	3.E-10	5.E-11	3.E-14	1.E-11	5.E-10
	S as Ph	2.E-08	3.E-09	6.E-09	5.E-10	2.E-08	3.E-09	2.E-12	8.E-10	3.E-08
	Zinc	2.E-09	3.E-10	6.E-10	5.E-11	2.E-09	3.E-10	2.E-13	1.E-10	4.E-09

50th Percentile Risks from Application of Fertilizer Products  
Arsenic (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
Huntington, WV	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	6.E-13	1.E-09	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	2.E-12	3.E-09	9.E-08
	Iron	2.E-08	4.E-09	7.E-09	7.E-10	2.E-08	4.E-09	8.E-13	1.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	3.E-08	9.E-12	1.E-08	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	5.E-10	1.E-10	2.E-14	2.E-11	8.E-10
	Mn	3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	1.E-14	2.E-11	5.E-10
	NPK as N	3.E-08	5.E-09	9.E-09	6.E-10	3.E-08	4.E-09	1.E-12	2.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	5.E-13	8.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	5.E-13	8.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	6.E-15	8.E-12	2.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	4.E-10	6.E-11	1.E-14	2.E-11	6.E-10
	S as Ph	2.E-08	4.E-09	6.E-09	5.E-10	2.E-08	3.E-09	7.E-13	1.E-09	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	4.E-10	9.E-14	2.E-10	4.E-09
	Las Vegas, NV	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	1.E-13	1.E-09
Gypsum Products		5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	7.E-09	4.E-13	3.E-09	9.E-08
Iron		2.E-08	4.E-09	6.E-09	8.E-10	2.E-08	3.E-09	2.E-13	1.E-09	4.E-08
Liming Materials		2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	2.E-12	1.E-08	4.E-07
Micronutrients		5.E-10	8.E-11	1.E-10	2.E-11	4.E-10	9.E-11	4.E-15	1.E-11	7.E-10
Mn		3.E-10	6.E-11	8.E-11	8.E-12	3.E-10	5.E-11	2.E-15	2.E-11	5.E-10
NPK as N		3.E-08	5.E-09	9.E-09	7.E-10	3.E-08	4.E-09	2.E-13	2.E-09	5.E-08
NPK for P2O5		1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	9.E-14	8.E-10	2.E-08
P2O5 - 1		1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	9.E-14	8.E-10	2.E-08
Potash		2.E-10	3.E-11	4.E-11	4.E-12	2.E-10	2.E-11	1.E-15	7.E-12	2.E-10
S as Nutrient		3.E-10	7.E-11	1.E-10	1.E-11	3.E-10	5.E-11	3.E-15	2.E-11	6.E-10
S as Ph		2.E-08	4.E-09	6.E-09	5.E-10	2.E-08	3.E-09	1.E-13	1.E-09	3.E-08
Zinc		2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	3.E-10	2.E-14	2.E-10	4.E-09
Los Angeles, CA		Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	2.E-13	1.E-09
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	5.E-13	2.E-09	9.E-08
	Iron	2.E-08	4.E-09	7.E-09	8.E-10	2.E-08	4.E-09	2.E-13	8.E-10	4.E-08
	Liming Materials	2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	4.E-08	2.E-12	1.E-08	4.E-07
	Micronutrients	5.E-10	8.E-11	1.E-10	2.E-11	5.E-10	9.E-11	5.E-15	1.E-11	8.E-10
	Mn	3.E-10	6.E-11	9.E-11	8.E-12	4.E-10	5.E-11	3.E-15	1.E-11	6.E-10
	NPK as N	3.E-08	5.E-09	9.E-09	7.E-10	3.E-08	4.E-09	3.E-13	1.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	1.E-13	5.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	1.E-13	5.E-10	2.E-08
	Potash	2.E-10	3.E-11	4.E-11	4.E-12	2.E-10	2.E-11	2.E-15	5.E-12	3.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	4.E-10	6.E-11	3.E-15	1.E-11	6.E-10
	S as Ph	2.E-08	4.E-09	6.E-09	6.E-10	2.E-08	3.E-09	2.E-13	9.E-10	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	4.E-10	2.E-14	1.E-10	4.E-09

50th Percentile Risks from Application of Fertilizer Products  
Arsenic (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
Memphis, TN	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	1.E-12	9.E-10	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	5.E-08	8.E-09	5.E-12	2.E-09	9.E-08
	Iron	2.E-08	4.E-09	6.E-09	7.E-10	2.E-08	4.E-09	2.E-12	8.E-10	4.E-08
	Liming Materials	2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	3.E-08	2.E-11	1.E-08	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	4.E-10	1.E-10	4.E-14	1.E-11	8.E-10
	Mn	3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	2.E-14	1.E-11	5.E-10
	NPK as N	2.E-08	5.E-09	9.E-09	6.E-10	3.E-08	4.E-09	2.E-12	1.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	1.E-12	5.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	1.E-12	5.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	1.E-14	5.E-12	2.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	9.E-12	3.E-10	5.E-11	3.E-14	1.E-11	6.E-10
	S as Ph	2.E-08	3.E-09	6.E-09	5.E-10	2.E-08	3.E-09	2.E-12	9.E-10	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	4.E-10	2.E-13	1.E-10	4.E-09
	Miami, FL	Boron	1.E-08	2.E-09	3.E-09	4.E-10	2.E-08	3.E-09	3.E-13	4.E-10
Gypsum Products		4.E-08	8.E-09	1.E-08	1.E-09	4.E-08	6.E-09	1.E-12	1.E-09	7.E-08
Iron		1.E-08	3.E-09	5.E-09	7.E-10	2.E-08	3.E-09	7.E-13	4.E-10	3.E-08
Liming Materials		2.E-07	3.E-08	5.E-08	5.E-09	2.E-07	3.E-08	6.E-12	5.E-09	3.E-07
Micronutrients		4.E-10	7.E-11	1.E-10	2.E-11	4.E-10	8.E-11	1.E-14	7.E-12	7.E-10
Mn		2.E-10	4.E-11	7.E-11	7.E-12	3.E-10	4.E-11	8.E-15	6.E-12	4.E-10
NPK as N		2.E-08	4.E-09	7.E-09	5.E-10	2.E-08	3.E-09	7.E-13	7.E-10	4.E-08
NPK for P2O5		1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	1.E-09	3.E-13	3.E-10	2.E-08
P2O5 - 1		1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	1.E-09	3.E-13	3.E-10	2.E-08
Potash		1.E-10	2.E-11	3.E-11	3.E-12	1.E-10	2.E-11	4.E-15	3.E-12	2.E-10
S as Nutrient		3.E-10	6.E-11	8.E-11	8.E-12	3.E-10	5.E-11	9.E-15	7.E-12	5.E-10
S as Ph		2.E-08	3.E-09	5.E-09	5.E-10	2.E-08	2.E-09	5.E-13	5.E-10	3.E-08
Zinc		2.E-09	3.E-10	5.E-10	4.E-11	2.E-09	3.E-10	6.E-14	6.E-11	3.E-09
Minneapolis, MN		Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	5.E-13	2.E-09
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	2.E-12	5.E-09	1.E-07
	Iron	2.E-08	4.E-09	7.E-09	7.E-10	2.E-08	4.E-09	7.E-13	1.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	4.E-08	7.E-12	2.E-08	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	5.E-10	1.E-10	2.E-14	2.E-11	8.E-10
	Mn	3.E-10	6.E-11	9.E-11	8.E-12	4.E-10	5.E-11	1.E-14	2.E-11	6.E-10
	NPK as N	3.E-08	6.E-09	9.E-09	7.E-10	3.E-08	5.E-09	9.E-13	3.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	4.E-13	1.E-09	2.E-08
	P2O5 - 1	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	4.E-13	1.E-09	2.E-08
	Potash	2.E-10	3.E-11	4.E-11	4.E-12	2.E-10	2.E-11	5.E-15	1.E-11	3.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	4.E-10	6.E-11	1.E-14	3.E-11	6.E-10
	S as Ph	2.E-08	4.E-09	7.E-09	5.E-10	2.E-08	3.E-09	6.E-13	2.E-09	4.E-08
	Zinc	2.E-09	4.E-10	7.E-10	5.E-11	3.E-09	4.E-10	7.E-14	2.E-10	4.E-09



50th Percentile Risks from Application of Fertilizer Products  
Arsenic (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
Philadelphia, PA	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	7.E-13	1.E-09	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	2.E-12	3.E-09	9.E-08
	Iron	2.E-08	4.E-09	6.E-09	7.E-10	2.E-08	3.E-09	1.E-12	9.E-10	4.E-08
	Liming Materials	2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	1.E-11	1.E-08	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	4.E-10	9.E-11	2.E-14	1.E-11	8.E-10
	Mn	3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	1.E-14	1.E-11	5.E-10
	NPK as N	3.E-08	5.E-09	8.E-09	6.E-10	3.E-08	4.E-09	1.E-12	2.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	6.E-13	6.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	6.E-13	6.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	7.E-15	6.E-12	2.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	3.E-10	5.E-11	2.E-14	1.E-11	6.E-10
	S as Ph	2.E-08	3.E-09	6.E-09	5.E-10	2.E-08	3.E-09	9.E-13	1.E-09	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	3.E-10	1.E-13	1.E-10	4.E-09
	Phoenix, AZ	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	1.E-13	2.E-10
Gypsum Products		5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	7.E-09	5.E-13	2.E-09	9.E-08
Iron		2.E-08	4.E-09	6.E-09	8.E-10	2.E-08	3.E-09	2.E-13	8.E-10	4.E-08
Liming Materials		2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	2.E-12	1.E-08	4.E-07
Micronutrients		5.E-10	8.E-11	1.E-10	2.E-11	4.E-10	9.E-11	5.E-15	1.E-11	8.E-10
Mn		3.E-10	6.E-11	8.E-11	8.E-12	3.E-10	5.E-11	3.E-15	1.E-11	5.E-10
NPK as N		3.E-08	5.E-09	9.E-09	7.E-10	3.E-08	4.E-09	2.E-13	1.E-09	5.E-08
NPK for P2O5		1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	1.E-13	6.E-10	2.E-08
P2O5 - 1		1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	1.E-13	6.E-10	2.E-08
Potash		2.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	1.E-15	5.E-12	2.E-10
S as Nutrient		3.E-10	7.E-11	1.E-10	1.E-11	3.E-10	5.E-11	3.E-15	1.E-11	6.E-10
S as Ph		2.E-08	4.E-09	6.E-09	6.E-10	2.E-08	3.E-09	2.E-13	1.E-09	3.E-08
Zinc		2.E-09	4.E-10	6.E-10	6.E-11	2.E-09	3.E-10	2.E-14	1.E-10	4.E-09
Portland, ME		Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	5.E-13	1.E-09
	Gypsum Products	4.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	2.E-12	3.E-09	9.E-08
	Iron	2.E-08	4.E-09	6.E-09	7.E-10	2.E-08	3.E-09	7.E-13	1.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	6.E-12	1.E-08	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	4.E-10	9.E-11	2.E-14	1.E-11	7.E-10
	Mn	3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	9.E-15	1.E-11	5.E-10
	NPK as N	2.E-08	5.E-09	8.E-09	6.E-10	3.E-08	4.E-09	8.E-13	2.E-09	4.E-08
	NPK for P2O5	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	4.E-13	7.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	4.E-13	7.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	5.E-15	7.E-12	2.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	9.E-12	3.E-10	5.E-11	1.E-14	2.E-11	6.E-10
	S as Ph	2.E-08	3.E-09	6.E-09	5.E-10	2.E-08	3.E-09	5.E-13	1.E-09	3.E-08
	Zinc	2.E-09	3.E-10	6.E-10	5.E-11	2.E-09	4.E-10	6.E-14	2.E-10	4.E-09

50th Percentile Risks from Application of Fertilizer Products  
Arsenic (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
Raleigh-Durham, NC	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	8.E-13	8.E-10	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	3.E-12	2.E-09	9.E-08
	Iron	2.E-08	4.E-09	7.E-09	7.E-10	2.E-08	4.E-09	1.E-12	7.E-10	4.E-08
	Liming Materials	2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	4.E-08	1.E-11	8.E-09	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	5.E-10	1.E-10	3.E-14	1.E-11	8.E-10
	Mn	3.E-10	5.E-11	9.E-11	8.E-12	3.E-10	5.E-11	2.E-14	1.E-11	5.E-10
	NPK as N	3.E-08	5.E-09	9.E-09	6.E-10	3.E-08	5.E-09	1.E-12	1.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	7.E-13	5.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	6.E-13	5.E-10	2.E-08
	Potash	1.E-10	3.E-11	4.E-11	4.E-12	2.E-10	2.E-11	8.E-15	5.E-12	3.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	4.E-10	6.E-11	2.E-14	1.E-11	6.E-10
	S as Ph	2.E-08	4.E-09	6.E-09	5.E-10	2.E-08	3.E-09	1.E-12	8.E-10	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	3.E-09	4.E-10	1.E-13	1.E-10	4.E-09
	Salem, OR	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	2.E-13	1.E-09
Gypsum Products		5.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	7.E-13	3.E-09	9.E-08
Iron		2.E-08	4.E-09	6.E-09	7.E-10	2.E-08	3.E-09	3.E-13	1.E-09	4.E-08
Liming Materials		2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	3.E-12	1.E-08	4.E-07
Micronutrients		4.E-10	8.E-11	1.E-10	2.E-11	4.E-10	9.E-11	7.E-15	1.E-11	8.E-10
Mn		3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	4.E-15	1.E-11	5.E-10
NPK as N		3.E-08	5.E-09	8.E-09	6.E-10	3.E-08	4.E-09	3.E-13	2.E-09	4.E-08
NPK for P2O5		1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	2.E-13	7.E-10	2.E-08
P2O5 - 1		1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	2.E-13	7.E-10	2.E-08
Potash		1.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	2.E-15	7.E-12	2.E-10
S as Nutrient		3.E-10	7.E-11	1.E-10	1.E-11	3.E-10	5.E-11	4.E-15	2.E-11	6.E-10
S as Ph		2.E-08	3.E-09	6.E-09	5.E-10	2.E-08	3.E-09	2.E-13	1.E-09	3.E-08
Zinc		2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	3.E-10	3.E-14	2.E-10	4.E-09
Salt Lake City, UT		Boron	1.E-08	2.E-09	4.E-09	6.E-10	2.E-08	3.E-09	1.E-13	1.E-09
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	6.E-08	8.E-09	5.E-13	3.E-09	1.E-07
	Iron	2.E-08	4.E-09	7.E-09	8.E-10	3.E-08	4.E-09	2.E-13	1.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	7.E-08	7.E-09	2.E-07	4.E-08	2.E-12	1.E-08	4.E-07
	Micronutrients	5.E-10	9.E-11	1.E-10	2.E-11	5.E-10	1.E-10	5.E-15	1.E-11	8.E-10
	Mn	3.E-10	6.E-11	9.E-11	8.E-12	4.E-10	6.E-11	3.E-15	1.E-11	6.E-10
	NPK as N	3.E-08	6.E-09	9.E-09	7.E-10	3.E-08	5.E-09	3.E-13	2.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	1.E-13	7.E-10	2.E-08
	P2O5 - 1	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	1.E-13	7.E-10	2.E-08
	Potash	2.E-10	3.E-11	4.E-11	4.E-12	2.E-10	2.E-11	2.E-15	7.E-12	3.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	4.E-10	6.E-11	3.E-15	2.E-11	6.E-10
	S as Ph	2.E-08	4.E-09	7.E-09	6.E-10	2.E-08	3.E-09	2.E-13	1.E-09	4.E-08
	Zinc	2.E-09	4.E-10	6.E-10	6.E-11	3.E-09	4.E-10	2.E-14	1.E-10	4.E-09

50th Percentile Risks from Application of Fertilizer Products  
Arsenic (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
San Francisco, CA	Boron	1.E-08	2.E-09	4.E-09	5.E-10	2.E-08	3.E-09	2.E-13	2.E-09	3.E-08
	Gypsum Products	5.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	6.E-13	6.E-09	9.E-08
	Iron	2.E-08	4.E-09	6.E-09	8.E-10	2.E-08	3.E-09	3.E-13	2.E-09	4.E-08
	Liming Materials	2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	2.E-12	3.E-08	4.E-07
	Micronutrients	4.E-10	8.E-11	1.E-10	2.E-11	4.E-10	9.E-11	6.E-15	3.E-11	8.E-10
	Mn	3.E-10	5.E-11	8.E-11	8.E-12	3.E-10	5.E-11	3.E-15	3.E-11	5.E-10
	NPK as N	3.E-08	5.E-09	9.E-09	7.E-10	3.E-08	4.E-09	3.E-13	4.E-09	5.E-08
	NPK for P2O5	1.E-08	2.E-09	4.E-09	3.E-10	1.E-08	2.E-09	1.E-13	2.E-09	2.E-08
	P2O5 - 1	1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	1.E-13	1.E-09	2.E-08
	Potash	2.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	2.E-15	1.E-11	2.E-10
	S as Nutrient	3.E-10	7.E-11	1.E-10	1.E-11	3.E-10	5.E-11	4.E-15	3.E-11	6.E-10
	S as Ph	2.E-08	3.E-09	6.E-09	6.E-10	2.E-08	3.E-09	2.E-13	3.E-09	3.E-08
	Zinc	2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	3.E-10	2.E-14	3.E-10	4.E-09
	Winnemucca, NV	Boron	1.E-08	2.E-09	4.E-09	6.E-10	2.E-08	3.E-09	4.E-14	8.E-10
Gypsum Products		5.E-08	1.E-08	2.E-08	1.E-09	5.E-08	7.E-09	1.E-13	2.E-09	9.E-08
Iron		2.E-08	4.E-09	6.E-09	8.E-10	2.E-08	3.E-09	6.E-14	8.E-10	4.E-08
Liming Materials		2.E-07	4.E-08	6.E-08	7.E-09	2.E-07	3.E-08	6.E-13	1.E-08	4.E-07
Micronutrients		5.E-10	8.E-11	1.E-10	2.E-11	4.E-10	9.E-11	1.E-15	1.E-11	8.E-10
Mn		3.E-10	6.E-11	8.E-11	9.E-12	3.E-10	5.E-11	8.E-16	1.E-11	5.E-10
NPK as N		3.E-08	5.E-09	9.E-09	7.E-10	3.E-08	4.E-09	8.E-14	1.E-09	5.E-08
NPK for P2O5		1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	4.E-14	6.E-10	2.E-08
P2O5 - 1		1.E-08	2.E-09	3.E-09	3.E-10	1.E-08	2.E-09	3.E-14	6.E-10	2.E-08
Potash		2.E-10	3.E-11	4.E-11	4.E-12	1.E-10	2.E-11	4.E-16	6.E-12	2.E-10
S as Nutrient		3.E-10	7.E-11	1.E-10	1.E-11	3.E-10	5.E-11	1.E-15	1.E-11	6.E-10
S as Ph		2.E-08	4.E-09	6.E-09	6.E-10	2.E-08	3.E-09	5.E-14	1.E-09	3.E-08
Zinc		2.E-09	4.E-10	6.E-10	5.E-11	2.E-09	3.E-10	6.E-15	1.E-10	4.E-09

Numbers less than 0.00001 appear as a default of 0.00000.