

## Results of our tests of rice and rice products

We tested 223 samples\* of packaged, uncooked rice and rice-containing foods and beverages purchased in April, May and August 2012, many from the New York metropolitan area and from online retailers. A minimum of three samples of each product were analyzed and for the majority of the 65 products we looked at, we tested one sample from each of three lots. For the rice, the country or state(s) of origin column indicates in which country or state the rice was grown; in two instances, that information was not available. There's no federal limit for arsenic in most food. Our findings are a spot check of the market and are too limited to offer general conclusions about arsenic levels in specific brands or within/across rice product categories. In addition to test results for total arsenic, lead and cadmium, the table below displays test results for inorganic arsenic species, which are classified as human carcinogens, and organic arsenic species, which may also be a health concern. The two species of inorganic arsenic listed in the table are arsenite [As (III)] and arsenate [As(V)] and the two species of organic forms of arsenic are dimethylarsinic acid (DMA) and monomethylarsonic acid (MMA).

Product	Origin	Lot number	Total arsenic (ppb)	Inorganic arsenic sum (ppb)	Percent of inorganic arsenic	Organic arsenic sum (ppb)	Total lead (ppb)	Total cadmium (ppb)
<b>RICE</b>								
<b>365 Everyday Value</b> Long Grain Brown (Whole Foods)	NA	1	282	179	63.4%	66.9	0.7	271
		2	255	186	72.9	45.0	1.1	27.2
		3	210	165	78.5	44.4	1.1	33.7
<b>365 Everyday Value</b> Organic Indian Basmati White (Whole Foods)	India	1	99.9	64.7	64.8	15.4	2.4	9.3
		2	82.2	64.1	78.0	17.0	2.1	11.3
		3	97.7	78.5	80.3	16.9	1.1	7.5
<b>365 Everyday Value</b> Organic Thai Jasmine White (Whole Foods)	Thailand	1	150	66.2	44.1	57.3	2.7	6.5
		2	116	64.2	55.3	52.2	2.1	3.6
		3	104	60.0	57.7	48.0	2.2	4.2
<b>Archer Farms</b> Organic Basmati (Target)	India	1	62.7	29.4	46.9	21.0	11.8	51.1
		2	81.7	49.2	60.2	21.7	2.2	38.8
		3	54.7	30.1	55.0	20.6	4.7	47.5
<b>Archer Farms</b> Organic Jasmine (Target)	Thailand	1	112	60.3	53.8	36.2	0.9	12.7
		2	121	75.5	62.4	42.1	2.2	21.4
		3	115	86.9	75.6	41.0	1.7	20.3
<b>Cajun Country</b> Enriched Long Grain	Louisiana	1	328	107	32.5	173	1.9	14.9
		2	348	106	30.5	145	2.2	25.8
		3	331	116	35.0	179	<2.5 U	16.8
<b>Cajun Country</b> Popcorn Long Grain	Louisiana	1	350	86.5	24.7	177	3.3	23.1
		2	436	112	25.8	280	<2.5 U	29.1
		3	377	117	31.1	298	1.2	22.9
<b>Canilla</b> Extra Long Grain Enriched	USA	1	198	70.0	35.4	77.6	1.6	16.5
		2	431	159	36.8	231	5.9	26.2
		3	286	96.3	33.7	218	2.4	36.7
<b>Carolina</b> Enriched Extra Long Grain	AR, LA, TX	1	194	85.5	44.1	83.9	3.2	9.7
		2	194	85.2	43.9	107	4.4	10.3
		3	236	107	45.4	154	1.5	36.5
<b>Carolina</b> Jasmine Enriched Thai Fragrant Long Grain	Thailand	1	144	75.2	52.2	88.4	0.9	18.9
		2	159	67.0	42.1	66.0	1.1	7.9
		3	119	70.1	58.9	61.7	4.4	12.0
<b>Carolina</b> Whole Grain Brown	AR, LA, TX	1	126	66.9	53.1	61.0	6.9	7.5
		2	307	143	46.5	86.6	1.5	10.8
		3	277	158	56.9	118	1.4	9.8
<b>Della</b> Basmati Brown	Arkansas	1	318	193	60.8	146	1.5	15.8
		2	308	131	42.6	98.6	3.2	40.4
		3	568	210	36.9	394	3.3	80.3
<b>Della</b> Basmati White	Arkansas	1	458	198	43.3	311	1.6	21.6
		2	193	77.0	39.9	54.6	0.5	8.5
		3	227	86.1	37.9	121	1.3	14.9
<b>Doguet's</b> Brown	USA	1	191	99.1	51.9	60.0	0.9	10.2
		2	294	125	42.7	140	3.9	21.8
		3	339	131	38.5	148	4.8	27.6
<b>Doguet's</b> Enriched Long Grain	USA	1	283	141	49.8	168	3.0	24.2
		2	345	149	43.3	153	5.0	29.1
		3	219	97.4	44.5	74.5	8.2	29.3
<b>Goya</b> Enriched Medium Grain	NA	1	162	72.8	44.9	114	2.5	52.6
		2	124	80.3	64.8	65.5	4.3	31.4
		3	297	85.0	28.6	169	3.0	19.7
<b>Great Value</b> Brown (Walmart)	USA	1	213	114	53.4	89.4	6.5	11.6
		2	196	102	51.8	112	4.0	14.9
		3	212	116	54.9	125	1.2	10.2
<b>Great Value</b> Parboiled (Walmart)	USA	1	327	103	31.6	112	5.2	22.3
		2	360	133	37.0	106	7.4	20.4
		3	214	151	70.4	59.0	1.7	14.6
<b>Jazzmen</b> Louisiana Aromatic Brown	Louisiana	1	239	95.7	40.0	61.9	17.8	16.2
		2	168	91.4	54.4	54.8	9.1	8.2
		3	138	98.4	71.3	62.5	4.9	6.5
<b>Jazzmen</b> Louisiana Aromatic White	Louisiana	1	265	104	39.4	186	9.4	56.7
		2	295	152	51.5	135	3.3	9.2
		3	237	191	80.5	118	2.6	9.8
<b>Lundberg</b> California White Basmati	California	1	168	71.9	42.8	67.7	1.7	6.9
		2	209	90.0	43.1	117	2.4	9.2
		3	180	85.4	47.4	108	1.8	8.9
<b>Lundberg</b> Short Grain Brown	California	1	62.2	34.4	55.3	21.9	1.8	11.3
		2	66.4	32.2	48.5	21.6	0.4	11.6
		3	75.5	35.4	46.9	24.7	1.8	13.6
<b>Mahatma</b> Extra Long Grain Enriched	USA	1	65.5	27.9	42.6	20.7	0.2	11.2
		2	204	84.5	41.4	79.5	2.9	5.3
		3	169	119	70.4	31.8	1.0	11.3
<b>Market Pantry</b> Enriched Long Grain White (Target)	AR, LA, TX	1	184	96.7	52.6	73.0	3.1	6.5
		2	284	110	38.6	148	2.0	27.0
		3	220	102	46.2	124	1.3	10.8
<b>Martin</b> Long Grain Brown	Missouri	1	129	75.8	58.8	66.3	0.9	8.4
		2	254	98.1	38.6	96.7	5.2	19.9
		3	191	103	53.9	92.3	2.8	16.4
<b>Martin</b> Long Grain Enriched	Missouri	1	184	89.6	48.7	85.6	1.5	10.6
		2	398	214	53.7	211	1.5	27.8
		3	455	211	46.3	203	2.7	26.7
<b>Martin</b> Long Grain Enriched	Missouri	1	143	82.2	57.5	42.7	<2.5 U	10.1
		2	113	83.7	74.1	47.3	1.3	7.2
		3	193	59.5	30.8	114	<2.5 U	18.8
<b>Rice Select</b> Organic Texmati White	Texas	1	147	50.7	34.5	82.8	0.9	12.1
		2	133	76.2	57.3	69.8	0.4	15.1
		3	330	83.5	25.3	210	1.8	25.1
<b>Texas Best Organics</b> Long Grain Brown	Texas	1	448	106	23.7	364	1.0	8.9
		2	917	102	11.2	862	0.8	7.0
		3	287	98.6	34.4	159	2.1	8.6
<b>Texas Best Organics</b> Long Grain White	Texas	1	269	169	62.8	119	2.0	5.4
		2	252	92.7	36.8	155	1.4	6.4
		3	226	92.8	41.1	79.8	1.4	7.0
<b>Trader Joe's</b> White Basmati From India	India	1	176	71.2	40.5	103	5.1	4.5
		2	138	96.0	69.6	78.5	0.7	4.8
		3	85.0	55.1	64.8	14.9	2.1	19.3
<b>Uncle Ben's</b> Original Enriched Parboiled Long Grain	USA	1	86.0	63.6	74.0	13.0	1.0	15.9
		2	75.9	57.4	75.6	17.4	3.0	13.5
		3	246	141	57.2	97.9	3.8	14.6
<b>Uncle Ben's</b> Whole Grain Brown	USA	1	220	130	59.3	141	3.2	15.5
		2	245	137	55.9	113	2.7	15.2
		3	266	143	53.9	112	3.1	23.5
<b>BABY CEREAL</b>		1	207	129	62.3	118	1.5	23.1
		2	285	149	52.3	126	2.2	9.3
		3	209	127	60.9	81.1	2.1	13.7
<b>Beech-Nut</b> Homestyle Rice		1	130	67.1	51.6	32.1	3.8	8.7
		2	110	55.2	50.2	28.5	9.9	5.8
		3	117	61.1	52.2	29.2	7.6	5.7
<b>Earth's Best</b> Organic Whole Grain Rice		1	149	116	78.1	27.7	2.5	20.1
		2	257	160	62.1	57.1	2.3	31.7
		3	274	180	65.5	50.2	1.1	15.6
<b>Gerber</b> Rice		1	232	109	46.9	102	4.3	23.1
		2	264	109	41.1	121	5.6	24.6
		3	249	101	40.6	78.3	12.3	23.3
<b>Gerber SmartNourish</b> Organic Brown Rice		1	230	108	46.9	84.4	6.8	22.3
		2	977	53.6	54.9	20.9	5.5	10.9
		3	117	65.5	56.0	44.8	8.9	10.6
<b>HOT CEREAL</b>		1	329	86.0	26.1	199	11.9	14.6
		2	152	103	67.7	37.1	2.2	5.4
		3	215	171	79.6	30.4	0.7	8.1
<b>Bob's Red Mill</b> Organic Brown Rice Farina Creamy Rice		1	100	58.4	58.4	16.2	1.7	3.9
		2	157	73.8	47.0	47.4	0.6	6.9
		3	165	107	64.6	47.1	<0.5 U	2.4
<b>Bob's Red Mill</b> Organic Brown Rice Farina Creamy Rice		1	131	93.9	71.7	17.8	1.5	2.5
		2	91.1	43.3	47.5	26.1	<0.4 U	6.1
		3	74.4	45.9	61.7	27.4	<0.4 U	6.5
<b>Cream of Rice</b>		1	97.5	48.8	50.1	31.7	<0.4 U	5.3
		2	80.4	46.1	57.3	27.1	<0.5 U	6.2
		3	963	126	13.1	765	7.5	11.9
<b>Arrowhead Mills</b> Organic Sweetened Rice Flakes		1	398	129	32.4	259	6.4	5.3
		2	399	120	30.1	270	11.7	18.4
		3	371	197	53.1	169	9.0	8.5
<b>Barbara's</b> Brown Rice Crisps		1	376	222	58.9	162	5.8	10.0
		2	326	199	61.0	128	6.8	7.6
		3	252	127	50.6	101	10.0	14.3
<b>General Mills</b> Rice Chex Gluten Free		1	240	127	52.9	102	7.6	14.6
		2	256	125	48.8	103	7.4	16.8
		3	344	132	38.3	214	7.6	13.2
<b>Kellogg's</b> Rice Krispies		1	168	75.9	45.2	85.2	<1.9 U	7.4
		2	169	78.0	46.2	88.1	3.8	31.7
		3	171	72.7	42.5	91.0	3.2	30.9
<b>Kellogg's</b> Rice Krispies Gluten Free		1	196	86.0	43.9	101	2.3	11.8
		2	126	90.1	71.5	25.6	2.5	4.6
		3	125	88.7	71.0	26.1	5.6	5.2
<b>Trader Joe's</b> Crisp Rice Cereal		1	123	84.1	68.4	27.1	2.3	7.1
		2	212	96.4	45.5	100	4.2	7.5
		3	243	101	41.5	136	3.7	9.9
<b>RICE CAKES &amp; CRACKERS</b>		1	228	96.0	42.1	123	4.0	8.1