Natural Toxins — Validated and Verified Commodities, December 2024 ** NEOGEN*



			Ver	atox°			
	Aflatoxin — 700002479		Aflatoxin HS — 700002480		DON — 700002531/700002534		
Alfalfa hay	Corn/soy blend ¹	Pecans	Barley	Rice hulls	Alfalfa	Hay#	Water, backset/recycled*
Alfalfa meal	Cornmeal ¹	Pet food*	Beet pulp*	Soy flour	Barley ¹	Haylage#	Wheat ¹
Alfalfa pellets	Cottonseed1•	Pine nuts	Chili powder#	Soy germ meal	Barley, lightly pearled	Kamut (khorasan wheat)	Wheat, waxy
Almonds	Cottonseed meal	Pistachio nuts	Coconut	Soybean meal ¹	Barley, malted¹*	Lentils	Wheat bran¹
Amaranth	Cottonseed meal, ammoniated*	Popcorn ¹	Copra	Wheat ¹	Barley flour	Lentils, red	Wheat bran aleurone ¹
Barley ¹	DDGS*	Poppy seeds	Corn	Wheat midds	Barley flour, malted¹	Millet	Wheat flour ¹
Barley, lightly pearled ¹	DDGS syrup*	Potato, with skin, powder*	Corn, ammoniated		Barley silage	Milo (grain sorghum)	Wheat flour, 2 nd clear ¹
Barley flour	DDGS wet cake*	Potato, white	Corn bran ¹		Beans, fava	Oat fiber	Wheat germ
Barley flour, malted¹	Figs	Potato starch	Corn germ meal		Beet pulp*	Oat flour	Wheat middlings ¹
Beans, black*	Flaxseed meal	Pumpkin seeds	Corn gluten meal		Canary seed	Oat hulls*	
Beans, fava	Flour, raw	Quinoa	Corn grits		Canola*	Oats ¹	
Beans, kidney	Hazelnuts	Rice ¹	Corn starch		Canola meal	Pea fiber	
Beet pulp*	Hemp seed	Rice, milled¹	Corn/soy blend		Chickpeas	Pea flour	
Brazil nuts	Hominy	Rice bran ¹	Cornmeal		Corn ¹	Peas, green and yellow	
Calcium carbonate	Kamut (khorasan wheat)	Rice gluten	Cottonseed meal		Corn bran ¹	Pet food*	
Canary seeds	Lentils	Rice hulls	DDGS¹ (special procedure)		Corn cob*	Popcorn	
Canola*	Macadamia nuts	Rye, raw ¹	Figs		Corn germ meal¹*	Poppy seeds	
Canola meal	Millet ¹	Rye flour ¹	Flax meal, brown		Corn gluten feed*	Potato, white	
Cashews	Milo (grain sorghum)¹	Sesame seeds	Flax meal, yellow		Corn gluten meal¹*	Potato, with skin, powder*	
Chickpeas	Nutmeg	Sorghum (grain) ¹	Flaxseed meal		Corn grits ¹	Pumpkin seeds	
Choline chloride	Oat fiber	Soy flour	Hominy		Corn oil	Quinoa	
Citric pulp	Oat flour	Soy germ meal	Kamut (khorasan wheat)		Corn screenings	Rice ¹	
Coconut	Oat hulls*	Soy hydrolysate	Lentils		Corn silage#	Rice, rough¹	
Copra	Oats	Soy natto	Milo (grain sorghum)		Corn starch	Rice gluten	
Corn¹	Oats, naked	Soy pellet	Oat fiber		Corn steep ²	Rice hulls	
Corn, ammoniated	Oats, rolled	Soybean meal ¹	Paprika		Corn/soy blend	Rye, raw ¹	
Corn bran¹*	Pea fiber	Soybeans ¹	Peanut butter		Cornmeal	Rye flour ¹	
Corn germ meal ¹	Pea flour	Sunflower meal	Peanut hulls		Cottonseed	Soy flour	
Corn gluten meal¹*	Peas, green	Sunflower seeds	Peanut meal#		DDGS*	Soy hydrolysate	
Corn grits¹	Peas, yellow	Tapioca	Peanuts, raw or roasted#		DDGS syrup*	Soybean meal	
Corn oil	Peanut hulls	Walnuts	Pet food*		DDGS wet cake*	Sunflower meal	
Corn silage#	Peanut meal#	Wheat ¹	Popcorn ¹		Flaxseed, brown	Sunflower seeds	
Corn starch	Peanuts, honey roasted	Wheat bran aleurone ¹	Quinoa		Flaxseed, golden#	Tapioca	
Corn steep*	Peanuts, raw or roasted#	Wheat flour, 2 nd clear ¹	Rice ¹		Flaxseed meal	Triticale	
Corn syrup	Peanuts, salted	Wheat midds ¹	Rice bran ¹		Flour, raw	TMR#	

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² = Extract, pH adjust, centrifuge for three minutes at 5,000 rpm

^{• =} Cottonseed samples should be decorticated

^{* =} pH adjustment step may be necessary

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	Veratox							
Fumonisin — 700002619/700002620		Zearalenone — 700002513		Ochratoxin — 700002609		Ochratoxin Grain — 700002610	T-2/HT-2 — 700002525	
Barley	Rye	Barley	Sesame	Apricots	1:4 Extraction in 70%	Barley	Barley	
Beet pulp*	Soy hydrolysate	Canola*	Soy pellets	Black chia	MEOH — five-minute shake	Beans, navy	Corn	
Corn	Soybean meal	Canola meal*	Soybean	Cascara	Barley	Buckwheat	Corn flour	
Corn germ meal*	Soybeans	Corn	Soybean hulls	Coffee, green	Oat	Corn	Corn gluten meal	
Corn gluten meal*	Sunflower meal	Corn gluten meal*	Soybean meal	Corn	Wheat	Corn gluten meal	Corn steep ²	
Corn steep ²	Wheat	Corn silage	Sunflower seeds	Dates	1:4 Extraction in 70%	Kamut (khorasan wheat)	DDGS wet cake*	
Corn syrup	Wheat bran	Corn syrup	Tapioca	Figs	MEOH — two-minute blend	Millet	Kamut (khorasan wheat)	
Corn/soy blend	*Blending extraction	Cottonseed	Wheat	Kiwicha	Rice flour	Oat	Lentils, red	
Cornmeal	Sunflower seeds, black*	DDGS*	Wheat bran*	Oat fiber*#	Rice gluten	Peas	Oat hulls, whole*	
Cottonseed		DDGS wet cake		Oat flour	Rice hulls	Rye	Oats	
DDGS*		Kamut (khorasan wheat)		Pea fiber	Potato, white	Sorghum	Peas, green and yellow	
DDGS wet cake*		Oat flour		Popcorn	Tapioca	Wheat	Pea fiber	
Kamut (khorasan wheat)		Oat hulls*		Poppy seeds			Potato, white	
Millet		Oats		Pumpkin seeds			Rice, brown	
Milo (grain sorghum)		Oats, naked		Quinoa			Rice flour, white	
Oat hulls*		Oats, rolled		Raisins			Rice gluten	
Oats		Pea fiber		Rice			Rice hulls	
Oats, naked		Pet food*		Rye			Rye	
Pea fiber		Popcorn		Soy hydrolysate			Soy	
Pet food*		Potato		Soybean meal			Soybean meal	
Popcorn		Rice		Soybeans			Soybean hulls	
Potato, white		Rice, brown		Sunflower meal			Tapioca	
Rice, rough		Rice flour, white		Wheat bran*			Wheat	
Rice gluten		Rice hulls					Wheat bran*	
Rice hulls		Rye					Wheat flour	

Veratox MAX								
Total Aflatoxin — 700002483 Total Aflatoxin HS — 700002482 Zearalenone — 700002514								
Barley, lightly pearled¹	DDGS ¹	Rye ¹	Corn	Corn	Soybean			
Corn¹	Peanuts, raw	Soybean ¹		Oat flour	Wheat			
Corn gluten meal ¹	Peanuts, roasted	Soybean meal		Popcorn				
Cornmeal	Popcorn ¹	Wheat ¹		Rice flour				

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			Reveal® Q+					
	Aflatoxin — 700002497			DON — 700002539				
1:3 Extraction	Cottonseed pellets	Rice, brewer's¹	Wheat starch	Lentils	Timothy hay pellets			
Beans, pinto	Cracked corn ¹	Rice, broken	1:5 Extraction	Linseed, brown	Triticale			
DDGS#1	Dehydrated potato flakes	Rice, brown	Corn gluten feed*	Millet	Wheat ¹			
DDGS wet cake	Flax oil	Rice, rough	Oat flour*	Oat fiber	Wheat, red spring*			
Oat fiber	Flaxseed	Rice bran	Water, heavy steep*	Oat groats	Wheat, waxy			
Peanut paste	Glutinous rice flour	Rice bran, defatted	1:8 Extraction	Oatmeal	Wheat bran			
Peanuts, roasted/salted	Grain distiller's dried yeast*	Rice flour	Yeast, brewer's	Oats ¹	Wheat flour ¹			
Pecan hulls	Heavy steep water*	Rice hulls	1:9 Extraction	Oats, rolled	Wheat flour, red dog			
1:4 Extraction	Hemp seed	Rye grain	Linseed, gold*	Pea fiber	Wheat germ			
Corn gluten feed	Hominy	Rye, whole*	1:10 Extraction	Pea flour	Wheat midds ¹			
1:5 Extraction	Kiwicha	Semolina flour	Alfalfa	Pea protein				
Alfalfa	Lentils	Sesame	Barley¹	Pea starch				
Almonds, raw	Lentil fiber	Sesame, white	Barley, malted¹	Peas				
Beet powder	Linseed, brown (LOD 10 ppb)	Sorghum/milo¹	Barley, malted, black	Peas, dried				
Beans, black	Linseed, gold	Soy flour	Barley, pearled¹	Peas, yellow				
Beans, carioca	Macadamia nuts	Soy hulls	Beans, fava	Pet food, canned				
Beans, navy	Millet, red	Soy pellet	Beans, navy	Potato protein				
Buckwheat	Millet, white	Soy protein concentrate*	Beans, pinto	Quinoa				
Buckwheat groats*	Oats	Soybean oil	Beet pulp	Rapeseed				
Cashews	Oats, rolled	Sunflower butter	Blueberries, dried	Rice, brewer's				
Cashew butter	Oat flour	Sunflower nuggets	Buckwheat	Rice, broken				
Cassava flour	Oat groats	Sunflower seeds	Buckwheat groats*	Rice, brown				
Chia, black	Peas, dried	Sunflower seeds, black	Canary seed	Rice bran, defatted				
Chia seed*	Peas, green and yellow	Sweet potato pellets	Chickpea fiber	Rice flour				
Chickpeas	Pea fiber	Sweet potato powder	Corn gluten feed*	Rice, rough¹				
Chickpea fiber	Pea flour	Wheat	Corn gluten meal¹*	Rye, whole*				
Coconut	Pea protein*	Wheat germ oil	Corn ¹	Safflower				
Corn ¹	Pea starch	Wheat midds	Corn oil*	Sesame, white				
Corn flaking grits ¹	Peanut butter	Wheat starch	Corn silage*	Sorghum/milo				
Corn germ meal	Peanut hulls#	1:6 Extraction	DDGS ^{1*}	Soybean				
Corn gluten meal¹*	Peanut hull pellets#	Almond butter	DDGS syrup*	Soybean meal				
Corn screenings ¹	Pearled barley	Flaxseed, brown	DDGS wet cake*	Soy flour				
Corn silage*	Pistachios, raw	Soy flour	Flaxseed*	Soy hulls				
Corn starch ¹	Popcorn ¹	Soybean meal*	Grass silage*	Spelt				
Corn steep*#	Potato powder	Trictacle*	Haylage*	Sunflower nugget				
Corn/soy blend ¹	Potato starch	75% Ethanol Extraction	Hominy*	Sunflower meal*				
Cornmeal ¹	Quinoa	Peanut pellets	Kamut (khorasan wheat)	Sunflower seeds				
Cottonseed#	Rapeseed		Kiwicha	Sweet potato pellets				
Cottonseed, loose	Rice		Lentil fiber	Sweet potato powder				

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Reveal Q+							
Fumon	isin — 700002625	Zearaleno	ne — 700002515	T-2/HT-2 — 700002527	Ochratoxin — 700002612		
1:3 Extraction	Beans, pinto	1:3 Extraction, Curve #1 — Corn	Rye grain	1:7 Extraction	1:3 Extraction		
Beans, navy	Canola meal	Corn¹	Soy flour¹#	Lentils, green	Chickpeas		
Corn protein concentrate	Chia seeds	DDGS ¹ #	Soy hulls	1:9 Extraction	DDGS* (LOD 10 ppm)		
Lentil fiber	Chickpeas	1:3 Extraction, Curve #2 — Wheat	Soy protein concentrate	Lentils, red	1:4 Extraction		
Milo/sorghum	Condensed distillers solubles	Beans, navy	Soybean ¹	Millet	Barley		
Oat fiber	Corn¹	Chia seeds	Soybean meal#	Oat, groats	Beans, pinto		
Rice, brewer's ¹	Corn, flaked	Corn, purple	Sunflower seeds	1:10 Extraction	Buckwheat		
Rice, parboiled	Corn cobs	Lentils, green	Wheat ¹	Barley	Canola		
Rice bran, brown	Corn gluten feed*	Oats	Wheat flour	Beans, navy	Chia seeds		
Rice hulls	Corn grits	Oat groats	Wheat grass	Beans, pinto	Chickpea fiber		
Sorghum	Corn oil	Pea protein	1:6 Extraction, Curve #1, Multiply x2	Chickpeas	Corn		
Soy hulls	Cornmeal	Rice, brown	Corn gluten meal	Chickpea fiber	Corn oil (pH adjust)		
1:4 Extraction	Lentils, green and red	Rice flour, glutinous		Corn	Corn silage*		
Barley	Millet, golden German	Wheat starch		Corn silage#	Flaxseed*		
Beet pulp	Oatmeal	1:4 Extraction, Curve #2 — Wheat		DDGS*	Grass silage*		
Cassava	Pea fiber	Barley, pearled		DDGS syrup*	Kamut (khorasan wheat)		
Chickpeas	Pea starch	Millet		DDGS wet cake*	Lentils, red		
Corn gluten meal*	Peanuts, blanched	Rice, brewer's		Grass silage#	Linseed*		
DDGS*	Peas, green and yellow	Rice, brown		Lentil fiber	Linseed, brown		
DDGS syrup*	Potato flakes, dehydrated	1:5 Extraction, Curve #2 — Wheat		Milo (grain sorghum)	Linseed, gold		
DDGS wet cake*	Rice, broken	Alfalfa		Oats	Millet, in shell		
Flaxseed	Rice bran	Barley#		Pea fiber	Milo/sorghum		
Hominy	Rice flour, brown	Barley, pearled#		Pea protein	Oat groats		
Millet	Soy protein concentrate*	Beans, pinto		Pea starch	Oats		
Oat flakes	Soybean meal*	Canola meal#		Peas, green and yellow	Peas*		
Oat flour*	Sunflower meal	Chickpeas		Rice	Peas, green and yellow		
Oat groats	Wheat ¹	Lentils, red		Rice bran flour	Pea fiber		
Oats	Wheat flour	Milo/sorghum		Wheat	Pea starch		
Rice, rough¹	1:6 Extraction	Oat fiber		2x Correction	Quinoa		
Wheat bran	Yeast, brewer's	Oat flour		Beet pulp pellets	Rice*		
Wheat midds		Oats, rolled		1:20 Extraction	Soybean meal		
Soybeans		Pea fiber		Soy hulls	Triticale		
1:5 Extraction		Pea starch			Wheat		
Alfalfa		Rice, brewer's#			1:6 Extraction		
Barley, cracked curled		Rice, rough¹#			Soy hulls		

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		Reveal Q+ MAX						
	Aflatoxin — 700002499 DON — 700002541							
1:3 Extraction	Corn grits, flaking	Sesame seeds, natural*	1:4 Extraction	Lentils, green				
Corn gluten meal	Corn silage#	1:7 Extraction	Condensed distillers solubles	Lentils, red				
Corn screenings	Cornmeal	Barley, cracked curled	Flaxseed	Oatmeal				
Pecans	Cottonseed#	Corn oil	Germ paste	Oats				
Potato, sweet	Cottonseed meal#	Lentils	Oat flakes	Oats, white				
Wheat gluten	DDGS syrup	Pea protein	Oat groats	Oats, whole				
1:3 Extraction, 1.6x Correction Factor	Grass silage**	Peas	Sorghum	Palm kernel				
DDGS	Hominy	1:8 Extraction	1:5 Extraction	Pea fiber				
1:4 Extraction	Oats	Brazil nuts	Alfalfa	Pea starch				
Canola meal	Pistachio nuts	Chia seeds, black	Barley	Pea protein				
Pine nuts	Popcorn ¹	Corn starch	Barley, cracked curled	Peanuts, blanched*				
Soybean meal	Rice flour, brown	Hazelnuts	Barley, malted	Peas				
Wheat midds	Rice, brown	Pea fiber	Beans, navy	Peas, yellow				
1:5 Extraction	Rice, milled	Pea starch	Beans, pinto	Quinoa				
Barley, cut**	Sorghum	Pumpkin seeds, Mexican	Bread crumbs	Rice, brown				
Barley, dehulled	Water, heavy steep	Rice, brewer's	Buckwheat	Rice, rough*				
Barley, lightly pearled¹	Wheat	Rice, white ¹	Canola meal	Rice hulls				
Barley, malted	Wheat flakes, red**	Sunflower kernels	Cassava	Rye				
Barley, whole	1:6 Extraction	1:9 Extaction	Chia seed ²	Sorghum flour				
Beans, black	Almond, raw	Semolina flour	Chickpeas	Soy hulls				
Beans, carioca	Almond, roasted	1:10 Extaction	Corn	Soybeans				
Beans, pinto	Almond, salted	Beans, navy	Corn, flaked	Soybean meal				
Cashew nuts	Corn, flaked	Coconut oil	Corn bran	Timothy hay pellets				
Cassava	Millet	Macadamia nuts	Corn cobs	Wheat				
Chickpea fiber	Millet, golden German	Quinoa, white	Corn germ	Wheat bran				
Condensed distillers solubles	Peanuts	Sesame seeds, hulled	Corn gluten feed	Wheat flour				
Corn ¹	Peanut butter	1:10 Extaction + 2 MAX packs	Corn gluten meal	Wheat mids				
Corn, purple	Peanut meal	Chickpeas	Corn husk	1:7 Extraction				
Corn cobs	Peanut paste	Grass silage**	Corn oil DDGS	Rice flour, brown				
Corn germ	Pumpkin seeds, Chinese		Corn starch					

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		Reve	al Q+ MAX			
Ochratoxin	- 700002614	Zearalenon	ne — 700002516	T-2/HT-2 — 700002528		
Test Method 3 in Insert	Coconut oil	1:3 Extraction, Curve #1	Pea starch	1:2 Extraction	Corn cobs	
Barley	Corn germ	Millet	Peas, yellow	Corn gluten meal ²	Corn silage	
Beans, black	Corn starch	1:4 Extraction, Curve #1	Rice, rough	1:3 Extraction	DDGS	
1:4 Extraction with Centrifugation	Germ paste	Barley, cracked curled	Rice hulls	Alfalfa	Hominy	
Coffee, green	Gluten	Beans, pinto	Sorghum	Chia seed	Lentils, green	
Oat groats	Millet	Palm kernel	Soybean meal	Quinoa	Lentils, red	
Oats	Pea starch	1:5 Extraction, Curve #1	Wheat	1:4 Extraction	Stevia, leaf	
1:3 Extraction, Curve #1	Rice	Alfalfa	Curve #1, 3x Correction Factor	Beans, navy	Stevia, liquid	
Peas, yellow	Sorghum	Barley	Corn silage	Corn starch	Stevia, powder	
Pulp kernel	Starch	Beans, navy	1:6 Extraction, Curve #1	Flaxseed	Oats	
1:4 Extraction, Curve #1	Wheat	Beet pulp	Rice bran	Millet	Oats, white	
Barley	Wheat midds	Chickpeas	1:7 Extraction, Curve #1	Oat fiber	Pea starch	
Beans, black	1:5, Curve #2	Corn cobs	Rice, brown	Oat groats	Pea protein	
Lentils, green	Corn	Haylage	1:8 Extraction, Curve #1	Sorghum	Peas, yellow	
Peas, green	Pea fiber	Lentils, green	Rice, brewer's	Soybean meal	Peas, green (LOD 125 ppb)	
Quinoa	Wheat bran	Lentils, red	1:10 Extraction, Curve #1	1:5 Extraction	Rice, brown*	
1:5 Extraction, Curve #1	1:6 Extraction, Curve #1	Oat fiber	Soybeans	Barley	Rice bran	
Stevia, powder	Barley, cracked curled	Oat groats	1:5 Extraction, Curve #2	Barley, cracked curled	Rice, rough	
1:5, Curve #1	Chickpeas	Oats	Corn	Beans, pinto	Wheat	
Beans, navy	1:7 Extraction, Curve #1	Oats, white	Corn gluten meal	Chickpea fiber (must centrifuge)	1:10 Extraction, 2 MAX packets	
Buckwheat	Stevia, liquid	Pea fiber	1:8 Extraction, Curve #2	Chickpeas	Pea fiber	
Chickpea fiber (must centrifuge)		Pea protein	Stevia, liquid	Corn		

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Natural Toxins — Validated and Verified Commodities, December 2024 Revisions

Added

Reveal Q+ Aflatoxin — 8085

- Sunflower butter (1:5 Extraction)
- Almond butter (1:6 Extraction)
- Semolina flour (1:5 Extraction)

Reveal Q+ MAX Aflatoxin — 8088

Semolina flour (1:9 Extraction)

Moved

Reveal Q+ MAX Aflatoxin — 8088

Beans, navy (From 1:4 to 1:10 Extraction)

Removed

Reveal Q+ Zearalenone — 8185

Chickpeas (1:3 Extraction, Curve #2 — Wheat)

For the purposes of this report, the following terms are defined as follows:

Validated

Commodities validated internally on Neogen toxin methods by comparing to HPLC and/or stated MRM values. Neogen toxin methods were conducted over multiple days, multiple analysts, and multiple conditions and successfully met acceptance criteria.

Verified

Customer commodity samples successfully tested through Neogen's internal Matrix Feasibility Request (MFR) process. Samples tested on Neogen toxin methods and compared to HPLC results (if naturally contaminated) or spiked with known level of target (for uncontaminated samples).

User Responsibility

Users should review specific product instructions and information by visiting our website at neogen.com, or by contacting your local Neogen representative or authorized distributor for more information. It is the user's responsibility in selecting any test method or product to evaluate a sufficient number of samples to satisfy the user that the chosen test method meets the user's criteria. It is also the user's responsibility to determine that any test methods and results meet its customers' and suppliers' requirements. When selecting a test method, it is important to recognize that external factors such as sampling methods, testing protocols, sample preparation, handling, laboratory technique and the sample itself may influence results. As with any test method, results obtained from use of any Neogen Food Safety product do not constitute a guarantee of the quality of the matrices or processes tested.

