



Certificate of Analysis

Sample Description:	beer	Sample Numbers:	S0001682-1704, 1708-1709
Client:	Moms Across America Mission Viejo	Receipt Date:	2017-08-25
Sample Volume:	various	Test Date:	2017-09-20
		Shipment Temp:	+4°C
		Storage Temp:	+4°C

Samples:				Results:		
Sample ID#	Sample Description/ UPC Code	Lot # and Expiration Date	Sample Volume	Glyphosate (ng/ml)	AMPA (ng/ml)	Effective Glyphosate Level (ng/ml)
S0001682, 1690-1704, 1709	Conventional beer brands (17 pooled samples)	various	5 mL of each sample, composited	0.90	0.81	2.11
S0001688, 1689, 1708	Independent beer brands (3 pooled samples)	various	5 mL of each sample, composited	10.23	2.25	13.60
S0001683-1687	Organic beer brands (5 pooled samples)	various	5 mL of each sample, composited	1.24	0.89	2.57

Methods

Sample Analysis: HRI TM #8 "Glyphosate and AMPA Detection by LC-MS/MS"

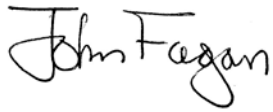
Sample preparation employed a modification of the method described in Chamkasem, Narong, Cynthia Morris, and Tiffany Harmon. 2016. "Direct Determination of Glyphosate, Glufosinate, and AMPA in Milk by Liquid Chromatography/tandem Mass Spectrometry." *Journal of Regulatory Science* 3 (2): 20–26.

LC-MS/MS analysis employed a modification of the method described in Jensen, Pamela K., Chad E. Wujcik, Michelle K. McGuire, and Mark A. McGuire. 2016. "Validation of Reliable and Selective Methods for Direct Determination of Glyphosate and Aminomethylphosphonic Acid in Milk and Urine Using LC-MS/MS." *Journal of Environmental Science and Health, Part B* 51 (4): 254–59. doi:10.1080/03601234.2015.1120619.

Limit of Quantitation (LOQ) and Limit of Detection (LOD) are sub-part per billion for this method and are determined for each sample.

Effective Glyphosate Level calculated according to Food and Agriculture Organization (FAO) method where total glyphosate residue is the sum of the weight of glyphosate + 1.5 × the weight of its metabolite AMPA.

Released on Behalf of HRI Laboratories by



Dr. John Fagan, Sr. Scientist

P.O. Box 370
Fairfield, IA 52556
+1 641-552-6258