

Table 1: Results and z-Scores for Honey Test Material

laboratory number	analyte							
	sulfaquinoxaline assigned value 110 µg/kg				sulfathiazole assigned value 103 µg/kg			
	result µg/kg	Int. Std. added or % recovery	LoQ µg/kg	z-score	result µg/kg	Int. Std. added or % recovery	LoQ µg/kg	z-score
001	#				102.43	66	5.51	0.0
002	187	70	5	3.2	127	80	5	1.1
003	144	Y M	3	1.4	113	Y M	3	0.4
004	12	S	0.5	-4.0	96	S	0.5	-0.3
005	#				#			
006	#				114.55	100	18.7	0.5
007	† #				#			
008	15.3	Y M	1.2	-3.9	53.6	Y M	1.4	-2.2
009	11	M	2	-4.1	141	Y M	2	1.7
010	99.7	59	10	-0.4	69.3	65	10	-1.5
011	95	y	25	-0.6	59	y	25	-1.9
012	107.49	Y	5	-0.1	104.21	Y	5	0.1
013	17.5	Y	1	-3.8	45.2	Y	1	-2.5
014	110	Y	25	0.0	117	Y	25	0.6
015	96	100	5	-0.6	78	100	5	-1.1
016	61.8	80.5	10	-2.0	68.0	69.6	10	-1.5
017	does not conform		50		0		50	-4.5
018	46	M	15	-2.6	130	M	15	1.2
019	110	M	2	0.0	105	M	2	0.1
020	0	M	50	-4.5	66	M	15	-1.6
021	129	52	10	0.8	39	121	10	-2.8
022	120	Y	10	0.4	103	Y	10	0.0
023	119	Y M	<10	0.4	101	Y M	<10	-0.1
024	#				97	80	10	-0.3
025	221.12	N 71.1	6.94	4.6	166.70	N 73.2	2.51	2.8

Some results have been edited for consistency
 LoQ = limit of quantification
 S = standard addition
 z-scores outside the satisfactory range, i.e. $|z| > 2$, are shown in **bold**

Int. Std. = internal standard
 M = matrix-based calibration used
 † = additional sulfonamides reported > 25 µg/kg (see Table 2)

Table 1 (continued): Results and z-Scores for Honey Test Material

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	result µg/kg	Int. Std. added or % recovery	LoQ µg/kg	z-score	result µg/kg	Int. Std. added or % recovery	LoQ µg/kg	z-score
026	161.0	N	8	2.1	111.8	N	8	0.4
027	122.08	Y	50.0	0.5	90.16	Y	50.0	-0.6
028	24	M	5	-3.6	12	M	5	-4.0
029	153.2	Y M	5	1.8	126.2	Y M	5	1.0
030	12.6	Y	5.0	-4.0	5.8	Y	5.0	-4.3
031	#				55.12	n	3	-2.1
032	129.50	Y	5	0.8	13.25	Y	10	-4.0
033	0	100		-4.5	#			
034	31	40	10	-3.3	85	70	10	-0.8
035	36.2	67	0.5	-3.0	0	59	0.5	-4.5
036	99.87	M	10	-0.4	25.35	M	10	-3.4
037	#				0	N		-4.5
038	#				61	70	5	-1.8
039	#				102	y	2	0.0
040	60	74	15	-2.1	57	38	15	-2.0
041	#				96	Y	5	-0.3
042	151.95	M	27.95	1.8	27.82	M	4.83	-3.3
043	109.58	Y M	1	0.0	0	Y M	1	-4.5
044	#				128	Y	20	1.1
045	#				26.9	Y	7.8	-3.4
046	87	Y	25	-0.9	#			
047	† 0	N	10	-4.5	0	N	10	-4.5
048	#				42.2	N	5	-2.7
049	#				131.37	91.03		1.3
050	#				4.3	84.5	10	-4.4

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051	118.3	N	20	0.4	83.9	N	20	-0.8
052	† 0	—	—	-4.5	0	—	—	-4.5
053	15.0	80	10	-3.9	0	89	10	-4.5
054	#				103	N 85 M	15	0.0
055	178	Y	5.0	2.8	79	Y	3.2	-1.1
056	133.8	Y M	10	1.0	27.6	Y M	10	-3.3
057	#				0	50		-4.5
058	177.4	Y M	5	2.8	8.9	Y M	5	-4.2
059	#				93.5	N 68	5	-0.4
060	96	Y M	10	-0.6	101	Y M	10	-0.1
061	97.4	Y M	9	-0.5	54.0	Y M	30	-2.2
062	415.07	Y	7.2	12.7	108.53	Y	7.2	0.3
063	180	Y	10	2.9	120	Y	10	0.8

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† additional sulfonamides reported > 25 µg/kg (see Table 2)

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Table 2: Additional Sulfonamides Reported

laboratory number	Residue reported $\geq 50 \mu\text{g/kg}$	result $\mu\text{g/kg}$	Int. Std. used or % recovery	LoQ $\mu\text{g/kg}$
007	sulfamerazine	68	Y	14
007	sulfamethoxy pyridazine	46	Y	11
047	sulfadimidine (sulfamethazine)	46	N 70	10
052	sulfadimethoxine	71	–	–

Table 3: Assigned Values and Target Standard Deviations

analyte	assigned value, \hat{X} , $\mu\text{g/kg}$				target standard deviation	
	data points n	mode	robust sd $\hat{\sigma}$	uncertainty u	derived from	σ_p
sulfaquinoxaline	37	110	5.98	5.98	Horwitz*	24.1
sulfathiazole	44	103	2.99	2.99	Horwitz*	22.6

* see page 8 for appropriate form of the Horwitz equation

Table 4: Number and Percentage of Satisfactory z-Scores

analyte	number of satisfactory scores $ z \leq 2$	total number of scores	satisfactory %
sulfaquinoxaline	22	44	50
sulfathiazole	35	59	59