

Supplementary Material

Detectability of sodium fluoroacetate (1080) in wild dog baits and impacts on bait uptake

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Table S1. 1080 residue on filter papers prepared with 0.2 mL of 1080 stock solution containing a nominal 30 g/L of 1080. Samples were prepared at 5 (A and B), 6 (C and D), 7 (E and F), 11 (G and H), 18 (I and J), and 25 (K and L) days prior to testing.

CHEMICAL RESIDUE ANALYSIS REPORT

Report Number: CRL 11863.

Quote No:

Submitter Details

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Samples Submitted 12 x filter papers & 1 formulation

Test Requested Sodium Fluoroacetate (1080)

Date Sampled Date Received

11/01/2023

Date Tested 15/01/2024

Lab Reference Number BQ20203 (1-13)

Client Reference Number PARC (A-L)

Method PM002

Lab Ref No:	Sample Descriptor:	Chemical:	Result:	Units:
BQ20203-01	PARC sample A, 10.01.24	sodium fluoroacetate (1080)	6.4	mg/Filter
BQ20203-02	PARC sample B, 10.01.24	sodium fluoroacetate (1080)	6.0	mg/Filter
BQ20203-03	PARC sample C, 9.01.24	sodium fluoroacetate (1080)	6.6	mg/Filter
BQ20203-04	PARC sample D, 9.01.24	sodium fluoroacetate (1080)	6.3	mg/Filter
BQ20203-05	PARC sample E, 8.01.24	sodium fluoroacetate (1080)	5.7	mg/Filter
BQ20203-06	PARC sample F, 8.01.24	sodium fluoroacetate (1080)	6.1	mg/Filter
BQ20203-07	PARC sample G, 4.01.24	sodium fluoroacetate (1080)	6.6	mg/Filter
BQ20203-08	PARC sample H, 4.01.24	sodium fluoroacetate (1080)	6.2	mg/Filter
BQ20203-09	PARC sample I, 28.12.23	sodium fluoroacetate (1080)	6.6	mg/Filter
BQ20203-10	PARC sample J, 28.12.23	sodium fluoroacetate (1080)	6.4	mg/Filter
BQ20203-11	PARC sample K, 21.12.23	sodium fluoroacetate (1080)	6.9	mg/Filter
BQ20203-12	PARC sample L, 21.12.23	sodium fluoroacetate (1080)	6.8	mg/Filter
BQ20203-13	ACTA formulation	sodium fluoroacetate (1080)	31.5	g/L

Table S2. Imprint trial setup and outcomes showing the placement of filter papers, which pot was indicated on, and whether the search pattern of the dog investigated the pots containing the filter papers. Device is the apparatus used for the test. Total search time is time from the dog being sent to investigate to indication. Search time from first investigation of the chosen pot demonstrates whether the dog indicated following the first encounter (0 seconds) or continued searching before coming back to that pot.

Run	Device	1080 stock	Non-toxic,	Blank	Pot	Search 1080	Search non-	Search blank	Total search	Search time from first
		solution Pot	blue dye Pot	Pot	Indicated	Pot Y/N	toxic, blue dye Pot Y/N	Pot Y/N	time (seconds)	investigation of chosen pot (seconds)
1	Wall	7	5	9	7	Y	Y	Y	7	7
2	Wall	4	5	10	5	Y	Y	Y	7	5
3	Wheel	1	7	6	1	Y	Y	Y	15	15
4	Wheel	7	2	10	7	Y	Y	Y	13	0
5	Wheel	4	6	12	6	Y	Y	Y	7	0
6	Wheel	2	6	4	2	Y	Y	N	6	0
7	Wall	6	4	9	4	Y	Y	Y	7	7
8	Wall	11	1	6	11	Y	Y	N	4	0
9	Wall	12	2	3	3	Y	Y	Y	13	12
10	Wall	2	12	1	12	Y	Y	Y	4	0
11	Wheel	5	10	2	10	Y	Y	Y	18	11
12	Wheel	9	4	6	9	Y	N	N	1	0
13	Wall	9	8	3	8	N	Y	N	1	0
14	Wall	10	3	7	3	Y	Y	N	12	8

15	Wheel	3	9	7	3	Y	N	N	5	0
16	Wheel	7	10	2	5	N	N	Y	4	0
17	Wall	12	2	10	2	Y	Y	Y	5	0
18	Wall	11	1	4	1	Y	Y	Y	6	0
19	Wall	7	1	5	7	Y	Y	Y	27	17
20	Wall	6	12	1	6	Y	Y	Y	16	12

Table S3. Discerning trial setup and outcomes showing the placement of filter papers, which pot was indicated on, and whether the search pattern of the dog investigated the pots containing the filter papers. Device is the apparatus used for the test. Total search time is time from the dog being sent to investigate to indication. Search time from first investigation of the chosen pot demonstrates whether the dog indicated following the first encounter (0 seconds) or continued searching before coming back to that pot.

Run	Device	1080 stock solution Pot	Non-toxic, blue dye Pot	Pot Indicated	Search 1080 Pot Y/N	Search non-toxic, blue dye Pot Y/N	Total search time (seconds)	Search time from first investigation of chosen pot (seconds)
1	Rack 6 pots	1	2,3,4,5,6	1	Y	Y	5	5
2	Rack 8 pots	3	1,2,4,5,6,7,8	3	Y	Y	5	0
3	Rack 6 pots	5	1,2,3,4,6	5	Y	Y	1	0
4	Rack 8 pots	5	1,2,3,4,6,7,8	5	Y	Y	3	0
5	Rack 6 pots	5	1,2,3,4,6	5	Y	Y	2	0
6	Rack 8 pots	2	1,3,4,5,6,7,8	2	Y	Y	7	0
7	Rack 6 pots	3	1,2,4,5,6	3	Y	Y	4	0
8	Rack 8 pots	8	1,2,3,4,5,6,7	8	Y	Y	6	0
9	Wheel	12	1,2,3,4,5,6,7, 8,9,10,11,12	12	Y	Y	5	0
10	Wheel	5	1,2,3,4,6,7,8, 9,10,11,12	5	Y	Y	7	0
11	Wheel	8	1,2,3,4,5,6,7, 9,10,11,12	8	Y	Y	1	0
12	Wheel	2	1,3,4,5,6,7,8, 9,10,11,12	2	Y	Y	3	0
13	Wall	5	1,2,3,4,6,7,8, 9,10,11,12	5	Y	Y	13	0

Table S4. Bait trial setup and outcomes showing the placement of target treatment (1080 odour) and non-target treatment (non-toxic) baits, which pot was indicated on, and whether the search pattern of the dog investigated the pots containing the baits. Device is the apparatus used for the test. For fresh meat bait, the first two non-target treatment pots contained baits with non-toxic, blue dye + water solution and the next three contained water-only baits. Boxes around the pot = the pot that was indicated by the dog. Total search time is time from the dog being sent to investigate to indication. Search time from first investigation of the chosen pot demonstrates whether the dog indicated following the first encounter (0 seconds) or continued searching before coming back to that pot. Na = video recording failed, and search times could not be determined.

Run	Device	Bait-type being tested	Target treatment Pot	Non-target treatment Pots	Empty Pot	Search 1080 Bait Pot Y/N	Search non-toxic Bait Pot Y/N	Total search time (seconds)	Search time from first investigation of chosen pot (seconds)
1	Wall	DOGGONE	6	1,4,7,9,11	2,3,5,8,10,12	Y	Y	8	0
2	Rack	DOGGONE	8	1,2,3,5,6	4,7	Y	Y	8	6
3	Wall	Fresh Meat	4	2,9,6,8,11	1,3,5,7,10,12	Y	Y	19	17
4	Wall	Dried Meat	6	1,4,8,9,12	2,3,5,7,10,11	Y	Y	14	13
5	Wall	Fresh Meat	8	6,11,1,3,10	2,4,5,7,9,12	Y	Y	13	12
6	Rack	Fresh Meat	1	3,8,2,5,7	4,6	Y	Y	32	31
7	Rack	DOGGONE	7	1,2,4,5,8	3,6	Y	Y	36	34
8	Wall	Fresh Meat	6	3,8,1,10,12	2,4,5,7,9,11	Y	Y	41	37
9	Wall	Fresh Meat	7	5,12,2,4,9	1,3,6,8,10,11	Y	Y	9	0
10	Wall	DOGGONE	7	2,3,5,8,10	1,4,6,9,11,12	Y	Y	9	0
11	Wall	CPE capsule	2	3,4,7,10,11	1,5,6,8,9,12	Y	Y	22	18
12	Rack	Fresh Meat	2	5,7,1,4,6	3,8	Y	Y	34	32
13	Wall	Fresh Meat	7	4,9,1,5,12	2,3,6,8,10,11	Y	Y	20	19
14	Rack	CPE capsule	5	2,3,6,7,8	1,4	Y	Y	13	10
15	Wall	Dried Meat	12	3,5,6,10,11	1,2,4,7,8,9	Y	Y	10	9
16	Wall	Fresh Meat	2	3,12,4,6,7,	1,5,8,9,10,11	Y	Y	Na	Na
17	Wall	DOGGONE	9	1,2,6,7,11	3,4,5,8,10,12	Y	Y	Na	Na
18	Wall	Dried Meat	12	2,4,6,9,10	1,3,5,7,8,11	Y	Y	13	13

19	Wall	DOGGONE	5	2,4,9,10,12	1,3,6,7,8,11	Y	Y	10	0
20	Wall	DOGGONE	12	1,3,4,9,10	2,5,6,7,8,11	Y	Y	14	12
21	Wall	CPE capsule	3	2,5,8,9,11	1,4,6,7,10,12	Y	Y	26	23
22	Wall	Dried Meat	1	3,6,7,9,11	2,4,5,8,10,12	Y	Y	17	13
23	Wall	CPE capsule	2	4,5,7,9,11	1,3,6,8,10,12	Y	Y	12	8
24	Wall	DOGGONE	5	3,7,8,9,12	1,2,4,6,10,11	Y	Y	15	9
25	Wall	CPE capsule	2	4,5,7,10,12	1,3,6,8,9,11	Y	Y	22	18
26	Wall	Dried Meat	10	1,4,6,8,12	2,3,5,7,9,11	Y	Y	24	15

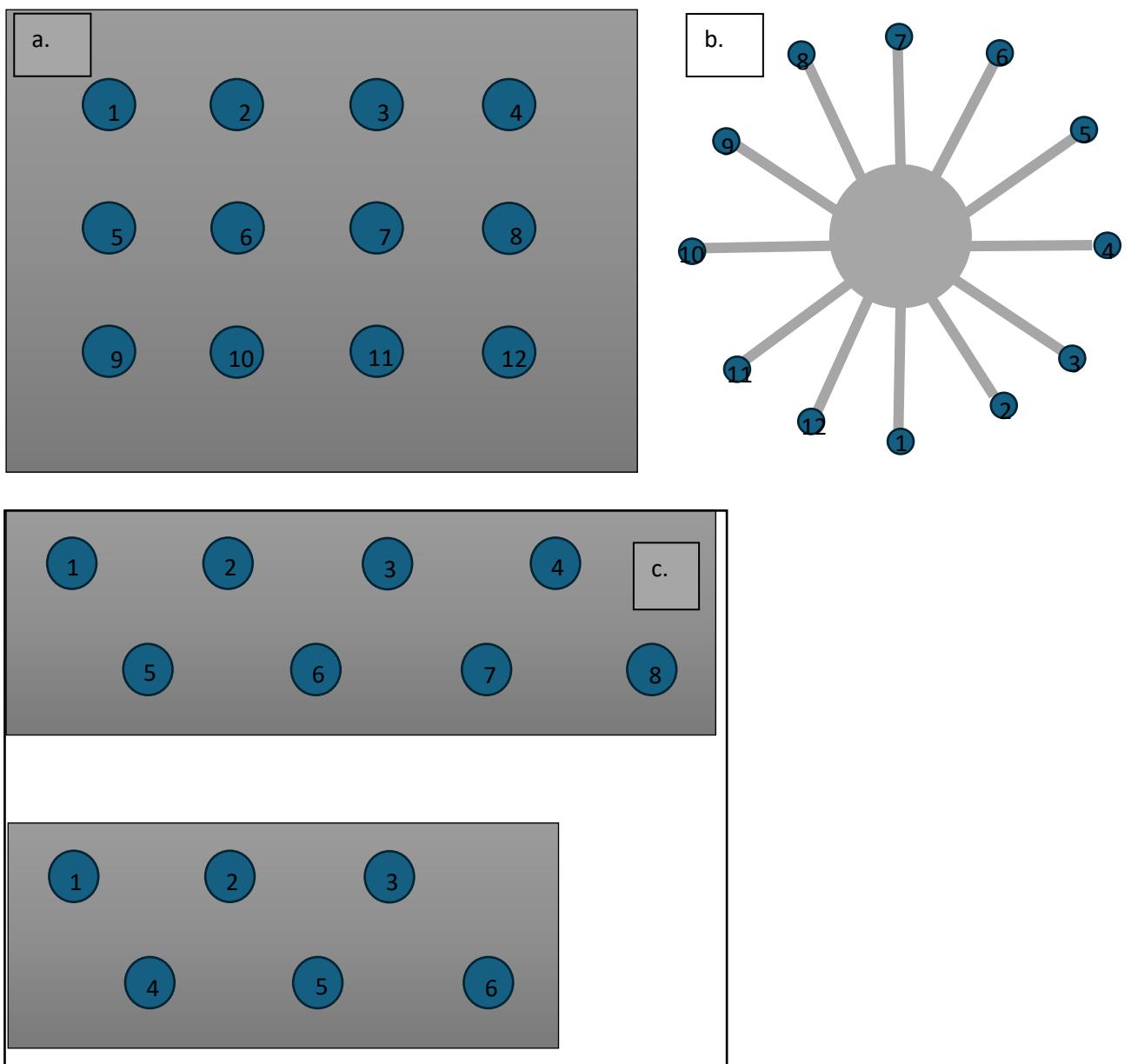


Figure S1. Testing devices for detector dog trials. **a.** Scent wall (~ 1 m tall) placed vertically with positions for 12 pots, **b.** Scent wheel horizontal to the ground, approximately 50cm above the ground, arms ~ 1.5 m long, with positions for 12 pots, and **c.** Scent racks placed horizontally on the ground with positions for 8 or 6 pots.