

Appendix G. Example Output from T-REX and T-HERPS

Acute avian values are greater than values (*e.g.*, no mortality occurred at the highest dose tested) and RQs estimated using these values will overestimate risk.

Upper Bound Kenaga Residues For RQ Calculation			
Chemical Name:	Thiobencarb		
Use	Rice		
Formulation	Emulsifiable Concentrate		
Application Rate	4 lbs a.i./acre		
Half-life	11.92 days		
Application Interval	0 days		
Maximum # Apps./Year	1		
Length of Simulation	1 year		
Endpoints			
Avian	Bobwhite quail	LD50 (mg/kg-bw)	1938.00
	Mallard duck)	LC50 (mg/kg-diet)	5000.00
	Mallard duck	NOAEL(mg/kg-bw)	0.00
	Mallard duck	NOAEC (mg/kg-diet)	100.00
Mammals		LD50 (mg/kg-bw)	1033.00
		LC50 (mg/kg-diet)	0.00
		NOAEL (mg/kg-bw)	1.00
		NOAEC (mg/kg-diet)	20.00
Dietary-based EECs (ppm)		Kenaga Values	
Short Grass		960.00	
Tall Grass		440.00	
Broadleaf plants/sm Insects		540.00	
Fruits/pods/seeds/lg insects		60.00	

Avian Results

Avian Class	Body Weight (g)	Ingestion (Fdry) (g bw/day)	Ingestion (Fwet) (g/day)	% body wgt consumed	FI (kg-diet/day)
Small	20	5	23	114	2.28E-02
Mid	100	13	65	65	6.49E-02
Large	1000	58	291	29	2.91E-01
Granivores	20	5	5	25	5.06E-03
	100	13	14	14	1.44E-02
	1000	58	65	6	6.46E-02

Avian Body Weight (g)	Adjusted LD50 (mg/kg-bw)
20	1396.19
100	1777.42
1000	2510.68

Dose-based EECs (mg/kg-bw)	Avian Classes and Body Weights (grams)					
	small 20	mid 100	large 1000	Granivores(grams)		
				20	100	1000
Short Grass	1093.34	623.47	279.14			
Tall Grass	501.12	285.76	127.94			
Broadleaf plants/sm Insects	615.01	350.70	157.01			
Fruits/pods/seeds/lg insects	68.33	38.97	17.45	15.19	8.66	3.88

Dose-based RQs (Dose-based EEC/adjusted LD50)	Avian Acute RQs Size Class (grams)		
	20	100	1000
Short Grass	0.78	0.35	0.11
Tall Grass	0.36	0.16	0.05
Broadleaf plants/sm insects	0.44	0.20	0.06
Fruits/pods/seeds/lg insects	0.05	0.02	0.01
Seeds (granivore)	0.01	0.00	0.00

Dietary-based RQs (Dietary-based EEC/LC50 or NOAEC)	RQs	
	Acute	Chronic
Short Grass	0.19	9.60
Tall Grass	0.09	4.40
Broadleaf plants/sm Insects	0.11	5.40
Fruits/pods/seeds/lg insects	0.01	0.60

Mammalian Results

Mammalian Class	Body Weight	Ingestion (Fdry) (g bwt/day)	Ingestion (Fwet) (g/day)	% body wgt consumed	FI (kg-diet/day)
Herbivores/ insectivores	15	3	14	95	1.43E-02
	35	5	23	66	2.31E-02
	1000	31	153	15	1.53E-01
Grainvores	15	3	3	21	3.18E-03
	35	5	5	15	5.13E-03
	1000	31	34	3	3.40E-02

Mammalian Class	Body Weight	Adjusted LD50	Adjusted NOAEL
Herbivores/ insectivores	15	2270.36	2.20
	35	1836.96	1.78
	1000	794.54	0.77
Grainvores	15	2270.36	2.20
	35	1836.96	1.78
	1000	794.54	0.77

Dose-Based EECs (mg/kg-bw)	Mammalian Classes and Body weight					
	Herbivores/ insectivores (grams)			Granivores(grams)		
	15	35	1000	15	35	1000
Short Grass	915.29	632.59	146.67			
Tall Grass	419.51	289.93	67.22			
Broadleaf plants/sm Insects	514.85	355.83	82.50			
Fruits/pods/seeds/lg insects	57.21	39.54	9.17	12.71	8.79	2.04

Dose-based RQs (Dose-based EEC/LD50 or	Small mammal 15 grams		Medium mammal 35 grams		Large mammal 1000 grams	
	Acute	Chronic	Acute	Chronic	Acute	Chronic
Short Grass	0.40	416.45	0.34	355.73	0.18	190.68
Tall Grass	0.18	190.87	0.16	163.04	0.08	87.40
Broadleaf plants/sm insects	0.23	234.25	0.19	200.10	0.10	107.26
Fruits/pods/lg insects	0.03	26.03	0.02	22.23	0.01	11.92
Seeds (granivore)	0.01	5.78	0.00	4.94	0.00	2.65

Dietary-based RQs (Dietary-based EEC/LC50 or NOAEC)	Mammal RQs	
	Acute	Chronic
Short Grass	#DIV/0!	48.00
Tall Grass	#DIV/0!	22.00
Broadleaf plants/sm insects	#DIV/0!	27.00
Fruits/pods/seeds/lg insects	#DIV/0!	3.00

Chemical: Thiobencarb

LD50 ft-2

INPUTS Do not overwrite these numbers.		
Application Rate:	4.005	lbs / acre
% A.I.:	100.00%	
Avian LD50 (20g):	1396.19	mg/kg bw
(100g)	1777.42	
(1000g)	2510.68	
Mammalian LD50 (15g):	2270.36	mg/kg bw
(35g)	1836.96	
(1000g)	794.54	
Row Spacing:	0	inches
Bandwidth:	0	inches
Unincorporation:	100%	

Changes to the inputs must be made in the "INPUTS" worksheet

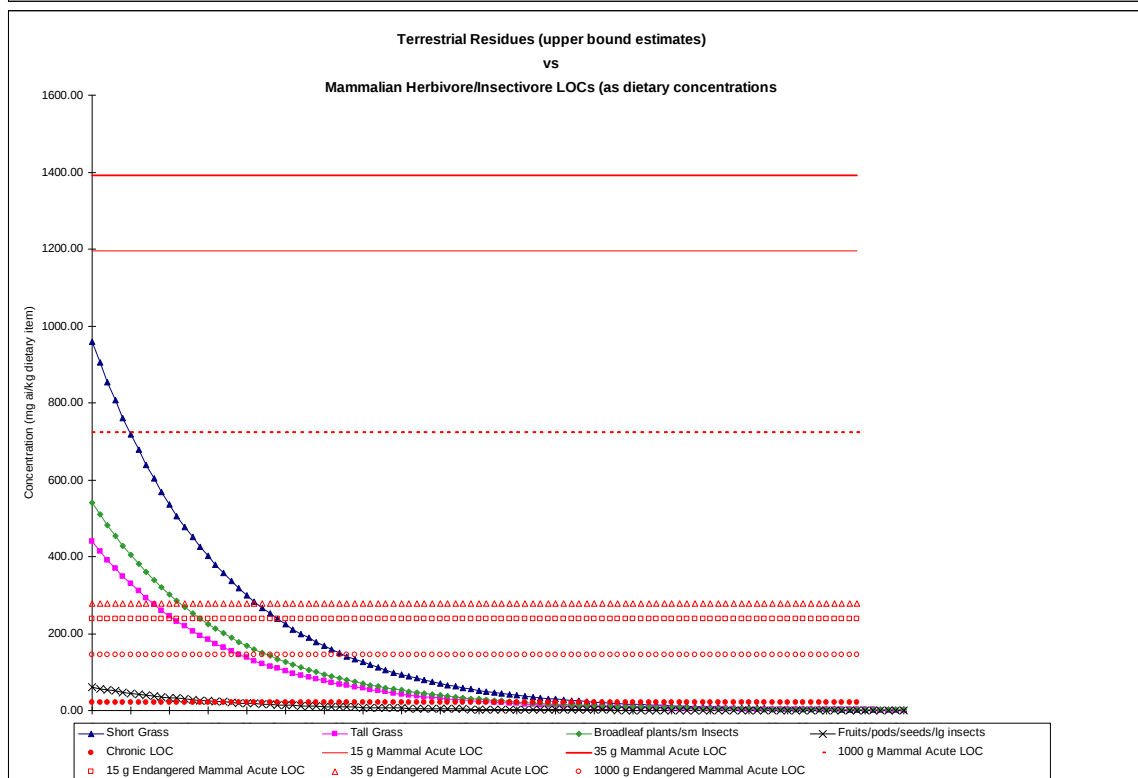
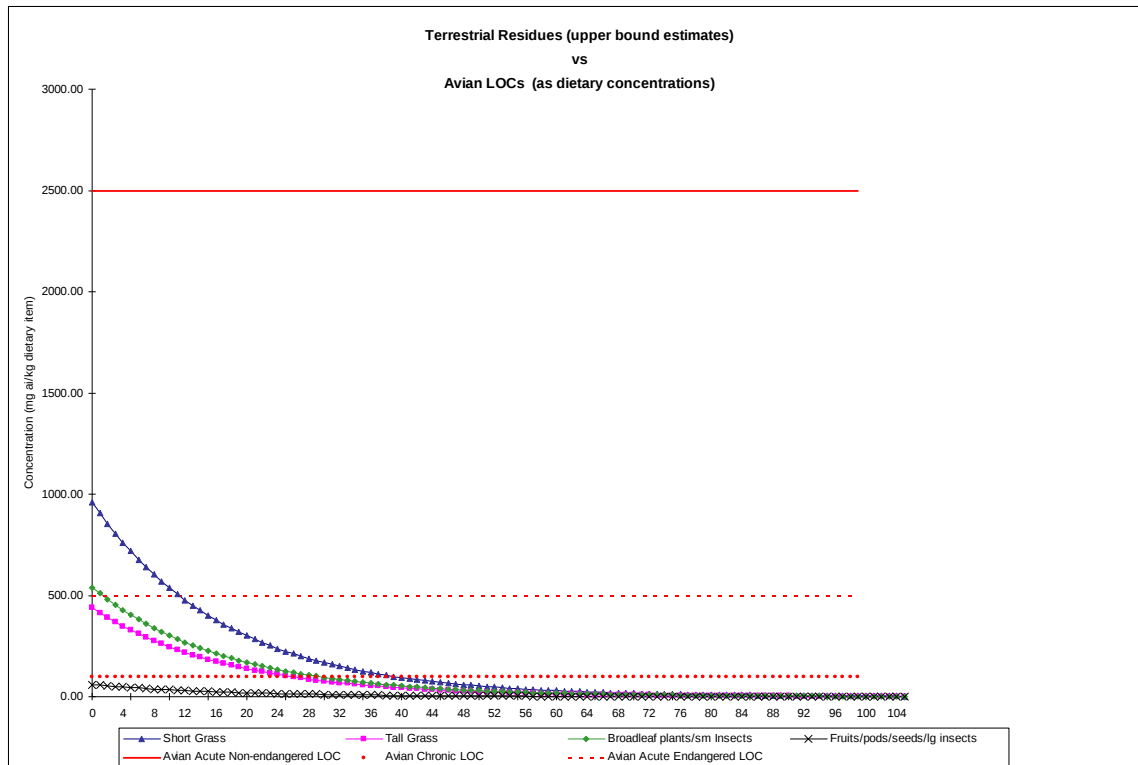
Questions?
Comments?
[Click here](#)

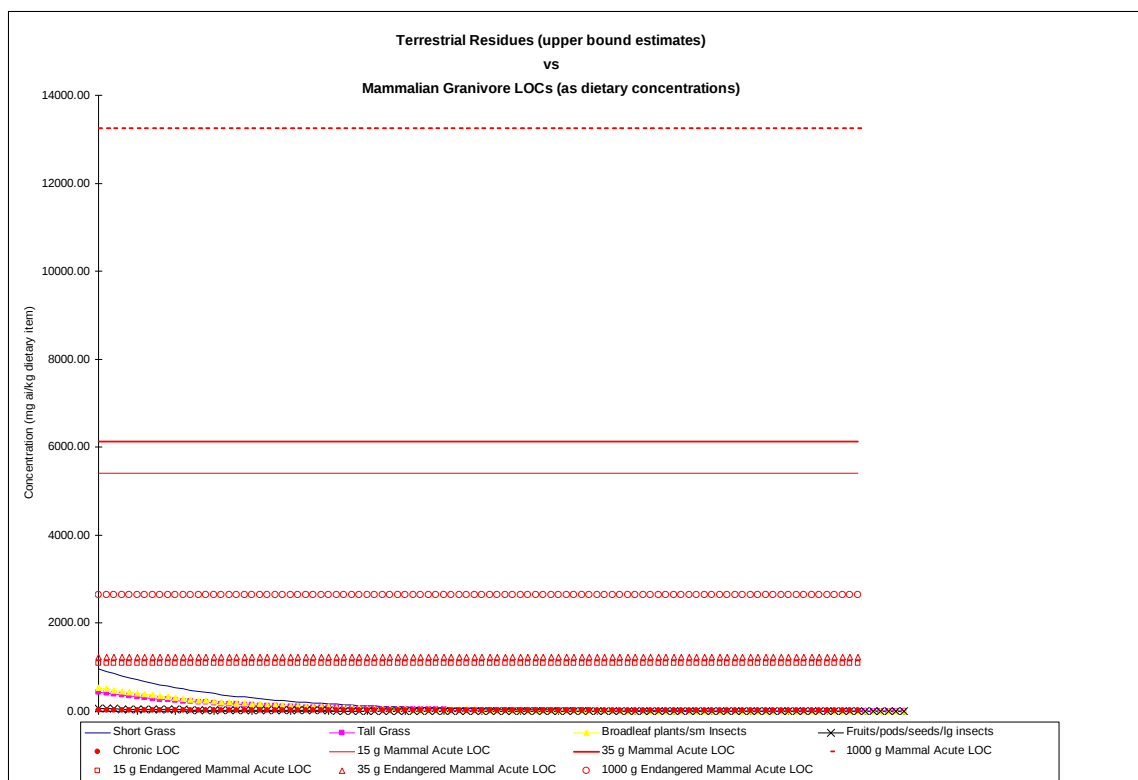
Row/Band/In-furrow applications

Granular		
Intermediate Calculations		
# rows acre-1:		N/A
row length (ft):		N/A
lb ai/1000 ft row:		N/A
bandwidth (ft):		N/A
mg ai/ft2:		N/A
exposed mg ai/ft2:		N/A
LD50 ft-2		
wgt class (grams)		
Avian	20	N/A
	100	N/A
	1000	N/A
Mammal	15	N/A
	35	N/A
	1000	N/A

N/A		
Intermediate Calculations		
mg a.i./1000 ft row:		N/A
bandwidth:		N/A
mg a.i./ft2:		N/A
exposed mg a.i./ft2:		N/A
N/A		
wgt class (grams)		
Avian	20	N/A
	100	N/A
	1000	N/A
Mammal	15	N/A
	35	N/A
	1000	N/A

Broadcast applications		
Granular		
Intermediate Calculations		
mg ai/ft2:		41.70
LD50 ft-2		
wgt class (grams)		
Avian	20	1.49
	100	0.23
	1000	0.02
Mammal	15	1.22
	35	0.65
	1000	0.05





T-HERPS Results

Upper Bound Kenaga Residues For RQ Calculation

Chemical Name:	Thiobencarb
Use	Rice
Formulation	Liquid
Application Rate	4 lbs a.i./acre
Half-life	11.92 days
Application Interval	0 days
Maximum # Apps./Year	1
Length of Simulation	1 year

Acute and Chronic RQs are based on the Upper Bound Kenaga Residues.

The maximum single day residue estimation is used for both the acute and reproduction RQs.

RQs reported as "0.00" in the RQ tables below should be note <0.01 in your assessment. This is due to rounding and signifi figure issues in Excel.

Questions?
Comments?
[Click here](#)

Endpoints

Avian	Bobwhite quail	LD50 (mg/kg-bw)	1938.00
	Mallard duck	LC50 (mg/kg-diet)	5000.00
	Bobwhite quail	NOAEL (mg/kg-bw)	0.00
	Mallard duck	NOAEC (mg/kg-diet)	100.00

Dietary-based EECs (ppm)	Kenaga Values
Short Grass	960.00
Tall Grass	440.00
Broadleaf plants/sm Insects	540.00
Fruits/pods/seeds/lg Insects	60.00
Small herbivore mammals	915.29
Small insectivore mammals	57.21
Small terrestrial phase amphibians	18.74

Terrestrial Herpetofauna Results

Weight Class	Body Weight (g)	Ingestion (Fdry) (g bw/day)	Ingestion (Fwet) (g/day)	% body wgt consumed	FI (kg-diet/day)
Small	1.4	0.017	0.1	3.9	5.44E-05
Mid	37	0.212	1.4	3.8	1.41E-03
Large	238	0.893	6.0	2.5	5.96E-03

Body Weight (g)	Adjusted LD50 (mg/kg-bw)
1.4	1938.00
37	1938.00
238	1938.00

Dose-based EECs (mg/kg-bw)	Herpetofaunal Size Classes and Body Weights		
	small (g)	mid (g)	large (g)
Short Grass	37.30	36.66	24.02
Tall Grass	17.09	16.80	11.01
Broadleaf plants/sm Insects	20.98	20.62	13.51
Fruits/pods/seeds/lg insects	2.33	2.29	1.50
Small herbivore mammals	N/A	371.06	57.69
Small insectivore mammals	N/A	23.19	3.61
Small terrestrial phase amphibian	N/A	0.72	0.47

Dose-based RQs (Dose-based EEC/adjusted LD50)	Amphibian/Reptile Acute RQs for Small, Medium, and Large Species (grams)		
	1.4	37	238
Short Grass	0.02	0.02	0.01
Tall Grass	0.01	0.01	0.01
Broadleaf plants/sm insects	0.01	0.01	0.01
Fruits/pods/seeds/lg insects	0.00	0.00	0.00
Small herbivore mammals	N/A	0.19	0.03
Small insectivore mammals	N/A	0.01	0.00
Small terrestrial phase amphibian	N/A	0.00	0.00

Dietary-based RQs (Dietary-based EEC/LC50 or	RQs	
	Acute	Chronic
Short Grass	0.19	9.60
Tall Grass	0.09	4.40
Broadleaf plants/sm Insects	0.11	5.40
Fruits/pods/seeds/lg insects	0.01	0.60
Small herbivore mammals	0.18	9.15
Small insectivore mammals	0.01	0.57
Small terrestrial phase amphibian	0.00	0.19

Note: To provide risk management with the maximum possible information, it is recommended that both the dose-based and concentration-based RQs be calculated when data are available

