

APPENDIX L: T-REX Example Input and Output

Corn, Soil Application:

Chemical Name:	Alachlor		
Use	Corn		
Formulation	0		
Application Rate	4	lbs a.i./acre	
Half-life	35	days	
Application Interval	0	days	
Maximum # Apps /Year	1		
Length of Simulation	1	year	
Endpoints			
Avian	Bobwhite quail	LD50 (mg/kg-bw)	1499.00
	Bobwhite quail	LC50 (mg/kg-diet)	5620.00
	Mallard duck	NOAEL (mg/kg-bw)	0.00
	Mallard duck	NOAEC (mg/kg-diet)	50.00
Mammals	LD50 (mg/kg-bw)		930.00
	LC50 (mg/kg-diet)		0.00
	NOAEL (mg/kg-bw)		1.50
	NOAEC (mg/kg-diet)		30.00
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	

Upper Bound <u>Kenaga</u> , Acute Avian Dose-Based Risk Quotients											
Size Class (grams)	Adjusted LD50	<u>EECs and RQs</u>									
		Short Grass		Tall Grass		Broadleaf Plants/ Small Insects		Fruits/Pods/ Seeds/ Large Insects		<u>Granivore</u>	
		EEC	RQ	EEC	RQ	EEC	RQ	EEC	RQ	EEC	RQ
20	1079.92	1093.34	1.01	501.12	0.46	615.01	0.57	68.33	0.06	15.19	0.01
100	1374.80	623.47	0.45	285.76	0.21	350.70	0.26	38.97	0.03	8.66	0.01
1000	1941.95	279.14	0.14	127.94	0.07	157.01	0.08	17.45	0.01	3.88	0.00

Upper Bound <u>Kenaga</u> , Subacute Avian Dietary Based Risk Quotients											
LC50	<u>EECs and RQs</u>										
	Short Grass		Tall Grass		Broadleaf Plants/ Small Insects		Fruits/Pods/ Seeds/ Large Insects				
	EEC	RQ	EEC	RQ	EEC	RQ	EEC	RQ			
5620	960.00	0.17	440.00	0.08	540.00	0.10	60.00	0.01			
Size class not used for dietary risk quotients											
Upper Bound <u>Kenaga</u> , Chronic Avian Dietary Based Risk Quotients											
NOAEC (ppm)	<u>EECs and RQs</u>										
	Short Grass		Tall Grass		Broadleaf Plants/ Small Insects		Fruits/Pods/ Seeds/ Large Insects				
	EEC	RQ	EEC	RQ	EEC	RQ	EEC	RQ			
50	960.00	19.20	440.00	8.80	540.00	10.80	60.00	1.20			
Size class not used for dietary risk quotients											
Upper Bound <u>Kenaga</u> , Acute Mammalian Dose-Based Risk Quotients											
Size Class (grams)	Adjusted LD50	<u>EECs and RQs</u>									
		Short Grass		Tall Grass		Broadleaf Plants/ Small Insects		Fruits/Pods/ Seeds/ Large Insects		<u>Granivore</u>	
		EEC	RQ	EEC	RQ	EEC	RQ	EEC	RQ	EEC	RQ
15	2043.98	915.29	0.45	419.51	0.21	514.85	0.25	57.21	0.03	12.71	0.01
35	1653.80	632.59	0.38	289.93	0.18	355.83	0.22	39.54	0.02	8.79	0.01
1000	715.32	146.67	0.21	67.22	0.09	82.50	0.12	9.17	0.01	2.04	0.00
Upper Bound <u>Kenaga</u> , Chronic Mammalian Dietary Based Risk Quotients											
NOAEC (ppm)	<u>EECs and RQs</u>										
	Short Grass		Tall Grass		Broadleaf Plants/ Small Insects		Fruits/Pods/ Seeds/ Large Insects				
	EEC	RQ	EEC	RQ	EEC	RQ	EEC	RQ			
30	960.00	32.00	440.00	14.67	540.00	18.00	60.00	2.00			
Size class not used for dietary risk quotients											

Upper Bound <u>Kenaga</u> , Chronic Mammalian Dose-Based Risk Quotients											
Size Class (grams)	Adjusted NOAEL	EECs and RQs									
		Short Grass		Tall Grass		Broadleaf Plants/ Small Insects		Fruits/Pods/ Seeds/ Large Insects		<u>Granivore</u>	
		EEC	RQ	EEC	RQ	EEC	RQ	EEC	RQ	EEC	RQ
15	3.30	915.29	277.63	419.51	127.25	514.85	156.17	57.21	17.35	12.71	3.86
35	2.67	632.59	237.15	289.93	108.69	355.83	133.40	39.54	14.82	8.79	3.29
1000	1.15	146.67	127.12	67.22	58.26	82.50	71.51	9.17	7.95	2.04	1.77

Corn, Impregnated Bulk Fertilizer Application:

INPUTS		
Application Rate:	4	lbs / acre
% A.I.:	100.00%	
Avian LD50 (20g):	1079.92	mg/kg <u>bw</u>
(100g)	1374.80	
(1000g)	1941.95	
Mammalian LD50 (15g):	2043.98	mg/kg <u>bw</u>
(35g)	1653.80	
(1000g)	715.32	
Row Spacing:	0	inches
Bandwidth:	0	inches
<u>Unincorporation</u> :	100%	

Broadcast applications		
Granular		
mg ai/ft ² :	41.65	
LD50 ft-2		
	<u>wgt</u> class (grams)	
Avian	20	1.93
	100	0.30
	1000	0.02
Mammal	15	1.36
	35	0.72
	1000	0.06