

Appendix G: T-REX Modeling: Terrestrial Exposure Estimates and Risk Quotients

The following tables provide examples of calculations for the avian and mammalian chronic RQs associated with the use of mancozeb on a variety of agricultural crops.

Detailed Terrestrial Risk Quotients (T-REX)

The following tables provide calculations for the avian and mammalian chronic RQs associated with the use of mancozeb on a variety of agricultural crops.

T-REX EECs and RQs for Mancozeb Uses

Turf

Upper Bound Kenaga Residues For RQ Calculation

Chemical Name:	Mancozeb/Maneb
Use	Turf
Formulation	0
Application Rate	17.4 lbs a.i./acre
Half-life	20 days
Application Interval	7 days
Maximum # Apps./Year	4
Length of Simulation	1 year

Endpoints			
Avian	Mallard duck	LD50 (mg/kg-bw)	0.00
	Bobwhite quail	LC50 (mg/kg-diet)	0.00
	Mallard duck	NOAEL (mg/kg-bw)	0.00
	Bobwhite quail	NOAEC (mg/kg-diet)	20.00
Mammals		LD50 (mg/kg-bw)	0.00
		LC50 (mg/kg-diet)	0.00
		NOAEL (mg/kg-bw)	3.75
		NOAEC (mg/kg-diet)	75.00
Dietary-based EECs (ppm)		Kenaga Values	
Short Grass		12039.93	
Tall Grass		5518.30	
Broadleaf plants/sm Insects		6772.46	
Fruits/pods/seeds/lg insects		752.50	

Avian Chronic RQs

Dietary-based RQs (Dietary-based EEC/LC50 or NOAEC)	RQs	
	Acute	Chronic
Short Grass	#DIV/0!	602.00
Tall Grass	#DIV/0!	275.92
Broadleaf plants/sm Insects	#DIV/0!	338.62
Fruits/pods/seeds/lg insects	#DIV/0!	37.62

Mammalian Dietary and Dose based RQs

Dose-based RQs (Dose-based EEC/LD50 or NOAEL)	15 g mammal		35 g mammal		1000 g mammal	
	Acute	Chronic	Acute	Chronic	Acute	Chronic
Short Grass	#DIV/0!	1392.79	#DIV/0!	1189.71	#DIV/0!	637.73
Tall Grass	#DIV/0!	638.36	#DIV/0!	545.28	#DIV/0!	292.29
Broadleaf plants/sm insects	#DIV/0!	783.44	#DIV/0!	669.21	#DIV/0!	358.72
Fruits/pods/lg insects	#DIV/0!	87.05	#DIV/0!	74.36	#DIV/0!	39.86
Seeds (granivore)	#DIV/0!	19.34	#DIV/0!	16.52	#DIV/0!	8.86

Dietary-based RQs (Dietary-based EEC/LC50 or NOAEC)	Mammal RQs	
	Acute	Chronic
Short Grass	#DIV/0!	160.53
Tall Grass	#DIV/0!	73.58
Broadleaf plants/sm insects	#DIV/0!	90.30
Fruits/pods/seeds/lg insects	#DIV/0!	10.03