Cal/Ecotox
Toxicity Data for Burrowing Owl (Speotyto cunicularia)*

Chemical	Tox Exposure	Endpoint Type	Endpoint Description	Endpoint Value	Note	Reference
CARBARYL; CARBOFURAN; DDE (4,4'-)		TOX-REPRO - reproductive success		review	a	1
HEPTACHLOR	0.16-0.19 ppm (wet wt)	TOX-REPRO - physiology	eggshell thickness	no effect	b	2
HEPTACHLOR	0.16-0.19 ppm (wet wt)	TOX-REPRO - reproductive success	mean clutch size	no effect	c	2
STRYCHNINE	2.5 mg/g dry bait application for ground squirrels	TOX-Non-Repro-Sublethal - whole animal	adult body weight	decrease	d	3
STRYCHNINE	2.5 mg/g dry bait application for ground squirrels	TOX-REPRO - development	chick mass index	no effect	e	3
STRYCHNINE	2.5 mg/g dry bait application for ground squirrels	TOX-REPRO - reproductive success	number of chicks produced per successful pair	no effect	f	3
STRYCHNINE	2.5 mg/g dry bait application for ground squirrels	TOX-REPRO - reproductive success	number of young produced per nest attempt	no effect	g	3
STRYCHNINE	2.5 mg/g dry bait application for ground squirrels	TOX-REPRO - reproductive success	proportion of pairs that raised at least 1 young	no effect	h	3

Notes

a Species - California (R)=Speotyto cunicularia; Species - California (R)=Bubo virginianus; TOX - Chemical=63-25-2; TOX - Chemical=1563-66-2; TOX - Chemical=72-55-9

b Adult; OR; F; Species - California (R)=Speotyto cunicularia; TOX - Chemical=76-44-8; N=6 nests; spring; Columbia Basin; Tox Exp Tech=in ovo; Tox Exp Dur=NR; Tox Study Dur=NR; Tox Stat Sig=N; eggs also contained 0.17 ppm DDE (wet wt)

c Adult; OR; F; Species - California (R)=Speotyto cunicularia; TOX - Chemical=76-44-8; N=6 nests; spring; Columbia Basin; Tox Exp Tech=in ovo; Tox Exp Dur=NR; Tox Study Dur=NR; Tox Stat Sig=N; eggs also contained 0.17 ppm DDE (wet wt)

d Adult; CANADA; B; Species - California (R)=Speotyto cunicularia; TOX - Chemical=57-24-9; N=27 pr; spring; Saskatchewan; Tox Exp Tech=diet (secondary exposure); Tox Exp Dur=NR; Tox Study Dur=NR; Tox Stat Sig=Y

e Juvenile; CANADA; B; Species - California (R)=Speotyto cunicularia; TOX - Chemical=57-24-9; N=27 pr; spring; Saskatchewan; Tox Exp Tech=diet (secondary exposure); Tox Exp Dur=NR; Tox Study Dur=NR; Tox Stat Sig=N

f Juvenile; CANADA; B; Species - California (R)=Speotyto cunicularia; TOX - Chemical=57-24-9; N=27 pr; spring; Saskatchewan; Tox Exp Tech=diet (secondary exposure); Tox Exp Dur=NR; Tox Study Dur=NR; Tox Stat Sig=N

g Juvenile; CANADA; B; Species - California (R)=Speotyto cunicularia; TOX - Chemical=57-24-9; N=27 pr; spring; Saskatchewan; Tox Exp Tech=diet (secondary exposure); Tox Exp Dur=NR; Tox Study Dur=NR; Tox Stat Sig=N

h Adult; CANADA; B; Species - California (R)=Speotyto cunicularia; TOX - Chemical=57-24-9; N=27 pr; spring; Saskatchewan; Tox Exp Tech=diet (secondary exposure); Tox Exp Dur=NR; Tox Study Dur=NR; Tox Stat Sig=N

References

1 Blus, Lawrence J. 1996. Effects of pesticides on owls in North America. J. Raptor Res. 30(4):198-206.

2 Henny, Charles J., Lawrence J. Blus and T. Earl Kaiser. 1984. Heptachlor seed treatment contaminates hawks, owls, and eagles of Columbia Basin, Oregon. J. Raptor Res. 18(2):41-48.

3 James, Paul C., Glen A. Fox and Thomas J. Ethier. 1990. Is the operational use of strychnine to control ground squirrels detrimental to burrowing owls?. J. Raptor Res. 24(4):120-123.

* Cal/EPA, OEHHA and the University of California Regents are not responsible for damages of any kind resulting from the use of or reliance on information in this report. Users are encouraged to consult the original data. Updated: February 1999.