APPENDIX A.

Estimation of Upper-Bound Aquatic Exposure

Inputs for GENEEC modeling of Ditchbank Use of Strychnine

Summary of Environmental Fate Data Used for Inputs		
Fate Property	**Input Value**	**MRID (or source)**
Aqueous Solubility	11.5 mg/L at 20 °C	Strychnine RED, EPA 738-R-99004, April, 1999
Aqueous Photolysis	Stable	Default value if no acceptable data are available
Aerobic Soil Metabolism Half- lives	Stable	Default value if no acceptable data are available
Hydrolysis	Stable @ pH = 5, 7, and 9	41122301
Aerobic Aquatic Metabolism (water column)	Stable	Default value if no acceptable data are available
K_{ads}	39 (lowest K_d)	42366501
Application Information used for Inputs		
Application rate	0.054 lb ai, 7-day retreatment interval	Upper limit assumption
Incorporation depth	0	Broadcast application
Spray Drift	0	Treated as granular

Modeling results:

```
RUN No.   1 FOR Strychnine       ON   Ditchbanks    * INPUT VALUES *
-------------------------------------------------------------------
RATE (#/AC)   No.APPS &   SOIL  SOLUBIL   APPL TYPE  NO-SPRAY INCORP
 ONE(MULT)    INTERVAL     Kd   (PPM )    (%DRIFT)   ZONE(FT)  (IN)
-------------------------------------------------------------------
.054(   .108)   2   7      39.0   11.5   GRANUL(   .0)    .0    .0


FIELD AND STANDARD POND HALFLIFE VALUES (DAYS)
-------------------------------------------------------------------
METABOLIC  DAYS UNTIL  HYDROLYSIS   PHOTOLYSIS   METABOLIC  COMBINED
 (FIELD)   RAIN/RUNOFF   (POND)     (POND-EFF)    (POND)     (POND)
-------------------------------------------------------------------
    .00        2          N/A       .00-     .00      .00       .00


GENERIC EECs (IN NANOGRAMS/LITER (PPTr))     Version 2.0 Aug 1, 2001
-------------------------------------------------------------------
    PEAK      MAX 4 DAY     MAX 21 DAY    MAX 60 DAY    MAX 90 DAY
    GEEC      AVG GEEC       AVG GEEC      AVG GEEC      AVG GEEC
-------------------------------------------------------------------
   924.50      913.21        852.98        735.97        662.48
```