Appendix M. Example output from analysis of likelihood of individual mortality

Example from analysis of individual mortality to aquatic-phase CRLF acutely exposed to dicofol (total residues of concern) resulting from aerial applications to strawberries.

IEC V1.1 - Individual Effect Chance Model Version 1.1
Predictor of chance of individual effect using probit dose-response curve slope and median lethal estimate

Enter LC_{50} or LD_{50}	53		
Enter desired threshold	0.71		
Enter slope of dose-response	4.5	**Is this a default slope estimate? Yes or No**	yes
z score result	-0.66933743	z is the standard normal deviate	
Probability associated with z	2.52E-01	Uses Excel NORMDIST function to estimate P with lower reporting limit of 1.0 E-16	
Chance of individual effect, **~1 in . . .**	3.97E+00	Calculated as 1/P	

Note:Effects probability is based of default slope estimate of 4.5

This is based on the formula $\log LC_k = \log LC_{50} + (z/b)$
where: z is the standard normal deviate and b equals slope
Works for dose-response models based on a probit assumption (i.e. log normal distribution of individual sensitivity)
Note: Excel cannot calculate probabilities for extremes in z scores beyond -8.2
Probability is defaulted to 10^{-16}, which is the limit of Excel reporting.

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