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

Desired threshold: Dose-based RQ for 1.4g CRLF consuming large insects

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}	3.16	
Enter desired threshold	1.1	
Enter slope of dose-response	4.5	**Is this a default slope estimate? Yes or No** yes
z score result	0.186267083	z is the standard normal deviate
Probability associated with z	5.74E-01	Uses Excel NORMDIST function to estimate P with lower reporting limit of 1.0 E-16
Chance of individual effect, **~1 in . . .**	1.74E+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.

Reset Model

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