lewis nitsolic % growth inhibition Dec 86

CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	50	50	0
4	100	30	30	0
1	100	20	20	0
.25	100	0	0	0

THE BINOMIAL TEST SHOWS THAT 16 AND 16 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 16

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
1	.4610078	16	9.798513	85.51254

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
5	1.300682	4.631478	9.740412E-03

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 1.005483
95 PERCENT CONFIDENCE LIMITS =-.1412448 AND 2.15221

LC50 = 13.48773
95 PERCENT CONFIDENCE LIMITS = 2.684051 AND +INFINITY

LC10 = .7359768
95 PERCENT CONFIDENCE LIMITS = 0 AND 3.578847

lewis Barmyardgrass % ground inhibit Dec 86

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	80	80	0
4	100	30	30	0
1	100	20	20	0
.25	100	0	0	0

THE BINOMIAL TEST SHOWS THAT 4 AND 16 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 6.871333

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
2	4.722749E-02	6.233911	4.788349	8.480846

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
3	1.052779	6.73642	1.187146E-03

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 1.56675
95 PERCENT CONFIDENCE LIMITS =-.0408144 AND 3.174315

LC50 = 5.624189
95 PERCENT CONFIDENCE LIMITS = .4146576 AND +INFINITY

LC10 = .8698909
95 PERCENT CONFIDENCE LIMITS = 0 AND 3.176267

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lewis Morningstar % growth inhibition Dec 1994

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	100	100	0
4	100	90	90	0
1	100	90	90	0
.25	100	70	70	0

THE BINOMIAL TEST SHOWS THAT 0 AND .25 CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .25

THE MOVING AVERAGE METHOD CANNOT BE USED WITH THIS DATA SET BECAUSE NO SPAN WHICH PRODUCES MOVING AVERAGE ANGLES THAT BRACKET 45 DEGREES ALSO USES TWO PERCENT DEAD BETWEEN 0 AND 100 PERCENT.

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
4	1.987077	3.603294	2.723396E-02

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = .8767661

95 PERCENT CONFIDENCE LIMITS =-.3591559 AND 2.112688

LC50 = 5.855673E-02

95 PERCENT CONFIDENCE LIMITS = 0 AND .464167

LC10 = 2.084837E-03

95 PERCENT CONFIDENCE LIMITS = 0 AND 8.778014E-02

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lewis cotton % growth inhibition Dec 86

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	100	100	0
4	100	95	95	0
1	100	95	95	0
.25	100	0	0	0

THE BINOMIAL TEST SHOWS THAT .25 AND 1 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .5525786

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
2	1.156269E-02	.6106863	.5275889	.6987626

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
8	13.8512	77.64558	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 3.607319
95 PERCENT CONFIDENCE LIMITS =-9.818113 AND 17.03275

LC50 = .6242686
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = .2775297
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

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lewis

soybean % growth inhibit Dec E6

CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	95	95	0
4	100	90	90	0
1	100	70	70	0
.25	100	0	0	0

BECAUSE THE NUMBER OF ORGANISMS USED WAS SO LARGE, THE 95 PERCENT CONFIDENCE INTERVALS CALCULATED FROM THE BINOMIAL PROBABILITY ARE UNRELIABLE. USE THE INTERVALS CALCULATED BY THE OTHER TESTS.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .740413

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
3	1.156269E-02	1.083952	.8985744	1.288968

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
5	3.513903	26.61692	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 2.018807
95 PERCENT CONFIDENCE LIMITS =-1.765529 AND 5.803142

LC50 = .9922253
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = .2330912
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

lewis cockleburr % growth inhibit Dec 86

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	90	90	0
4	100	80	80	0
1	100	20	20	0
.25	100	20	20	0

THE BINOMIAL TEST SHOWS THAT 1 AND 4 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 2

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
3	3.179922E-02	1.766091	1.326922	2.331487

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
3	1.670307	11.6456	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 1.368601
95 PERCENT CONFIDENCE LIMITS =-.400184 AND 3.137386

LC50 = 1.687061
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = .199148
95 PERCENT CONFIDENCE LIMITS = 0 AND 1.266825

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lewis Soybean Preemergence Dec. 1986

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
16	100	95	95	0
4	100	90	90	0
1	100	70	70	0
.25	100	0	0	0

BECAUSE THE NUMBER OF ORGANISMS USED WAS SO LARGE, THE 95 PERCENT CONFIDENCE INTERVALS CALCULATED FROM THE BINOMIAL PROBABILITY ARE UNRELIABLE. USE THE INTERVALS CALCULATED BY THE OTHER TESTS.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .740413

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS		
3	1.156269E-02		1.083952	.8985744	1.288968

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
6	3.513268	26.61396	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 2.018814

95 PERCENT CONFIDENCE LIMITS =-1.765193 AND 5.80282

LC50 = .9922226

95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = .2330917

95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

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LC_{25} = 0.4597 gms ai/ha

$$\text{Log } LC_{25} = \text{log } LC_{50} + \frac{(\text{Probit } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{log } 0,9922226 + \frac{(4.3255 - 5)}{2,018814}$$

$$\text{Log } LC_{25} = \text{Log } 0,9922226 + -,33435$$

$$\text{Log } LC_{25} = -3,391 + -,3341$$

$$\text{Log } LC_{25} = -0,33749$$

$$LC_{25} = 0,4597$$

lewis cocklebur Preemergence Dec 86

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
16	100	90	90	0
4	100	80	80	0
1	100	20	20	0
.25	100	20	20	0

THE BINOMIAL TEST SHOWS THAT 1 AND 4 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 2

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS		
3	3.179922E-02		1.766091	1.326922	2.331487

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
3	1.670309	11.64562	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 1.368601
95 PERCENT CONFIDENCE LIMITS =-.4001851 AND 3.137387

LC50 = 1.687061
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = .199148
95 PERCENT CONFIDENCE LIMITS = 0 AND 1.266826

****

LC 25 = 0.5424

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{Probit } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \log 1.687061 + \frac{4.3255 - 5}{1.368601}$$

$$\text{Log } LC_{25} = \log 1.687061 + -.492839$$

$$0.227131 - .492839$$

$$\text{Log } LC_{25} = -0.265708214$$

$$LC_{25} = 0.5424$$

lewis Cotton Preemerg... Dec 1986

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
16	100	100	100	0
4	100	95	95	0
1	100	95	95	0
.25	100	0	0	0

THE BINOMIAL TEST SHOWS THAT .25 AND 1 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .5525786

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
2	1.156269E-02	.6106863	.5275889	.6987626

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
8	13.85117	77.64542	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 3.607318
95 PERCENT CONFIDENCE LIMITS =-9.818096 AND 17.03273

LC50 = .6242685
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = .2775296
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

****

LC_{25} = 0.40588 gms ai/ha

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{Probit } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{Log } 0.6242685 + \frac{4.3255 - 5}{3.607318}$$

$$\text{Log } LC_{25} = -.20462858 + -0.18698102$$

$$LC_{25} = 0.40588$$

lewis morningglory Preemerge Dec 86

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CONC. gms ai/ha	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	100	100	0
4	100	90	90	0
1	100	90	90	0
.25	100	70	70	0

BECAUSE THE NUMBER OF ORGANISMS USED WAS SO LARGE, THE 95 PERCENT CONFIDENCE INTERVALS CALCULATED FROM THE BINOMIAL PROBABILITY ARE UNRELIABLE. USE THE INTERVALS CALCULATED BY THE OTHER TESTS.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .3325746

THE MOVING AVERAGE METHOD CANNOT BE USED WITH THIS DATA SET BECAUSE NO SPAN WHICH PRODUCES MOVING AVERAGE ANGLES THAT BRACKET 45 DEGREES ALSO USES TWO PERCENT DEAD BETWEEN 0 AND 100 PERCENT.

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
4	1.987077	3.603294	2.723396E-02

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = .8767661

95 PERCENT CONFIDENCE LIMITS =-.3591559 AND 2.112688

LC50 = .05.855673E-02 .05855673

95 PERCENT CONFIDENCE LIMITS = 0 AND .464167

LC10 = .002.084837E-03

95 PERCENT CONFIDENCE LIMITS = 0 AND 8.778014E-02

****

LC25 = 0.01 gms ai/ha

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{Prob.t } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{Log } .05855673 + \frac{(4.3255 - 5)}{.8767661}$$

$$\text{Log } LC_{25} = -1.232423184 + -.769304378$$

$$\text{Log } LC_{25} = -2.00$$

$$LC_{25} = 0.01$$

lewis wild buckwheat Program

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
16	100	95	95	0
4	100	90	90	0
1	100	80	80	0
.25	100	0	0	0

THE BINOMIAL TEST SHOWS THAT .25 AND 1 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .6580341

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
2	1.343431E-02		.8122755	.7026066

.9337601

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
6	5.144235	37.16577	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 1.981815
95 PERCENT CONFIDENCE LIMITS =-2.513122 AND 6.476753

LC50 = .8652326
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = .1978365
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

****

LC25 = 0.395 gms ai/ha

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{Probit } 25\% - 5)}{\text{Slope}}$$

$$\text{Log } LC_{25} = \text{Log } 0.8652326 + \frac{(4.3255 - 5)}{1.981815}$$

$$\text{Log } LC_{25} = -.062867125 + -0.340345$$

$$\text{Log } LC_{25} = -0.403212$$

$$LC_{25} = 0.395 \text{ gms ai/ha}$$

lewis Sugarbeet Preemerg.

CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
16	100	90	90	0
4	100	90	90	0
1	100	80	80	0
.25	100	40	40	0

THE BINOMIAL TEST SHOWS THAT .25 AND 1 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .3480085

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
1	.1095176	.3480084	.252084	.4394636

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
4	2.184463	7.053021	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = .9248021
95 PERCENT CONFIDENCE LIMITS =-.4420487 AND 2.291653

LC50 = .2734224
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = ,01.157623E-02
95 PERCENT CONFIDENCE LIMITS = 0 AND .2546234

LC25 = 0.051 gm ai/ha

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{Probit } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{Log } 0,2734224 + \frac{(4,3255 - 5)}{0.9248021}$$

$$\text{Log } LC_{25} = -0,5631659\,08 + -1,729345229$$

$$\text{Log } LC_{25} = -1,292511138$$

$$LC_{25} = 0.051 \text{ gms ai/ha}$$

lewis corn preemerge Dec 86

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CONC. gms ai/ha	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	90	90	0
4	100	70	70	0
1	100	30	30	0
.25	100	0	0	0

THE BINOMIAL TEST SHOWS THAT 1 AND 4 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 2

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
3	1.343433E-02	2.351185	1.964546	2.826343

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
4	.4886954	4.081009	1.689059E-02

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 1.831677
95 PERCENT CONFIDENCE LIMITS = .5512111 AND 3.112143

LC50 = 2.376956
95 PERCENT CONFIDENCE LIMITS = .7293156 AND 8.324125

LC10 = .481579
95 PERCENT CONFIDENCE LIMITS = 9.32853E-03 AND 1.26283

****

LC25 = 1.02 gms ai/ha

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{Probit } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{Log } 2.376956 + \frac{4.3255 - 5}{1.83677}$$

$$\text{Log } LC_{25} = 0.376021142 + -0.368241178$$

$$\text{Log } LC_{25} = 0.007779793$$

$$LC_{25} = 1.018 \text{ gms ai/hr.}$$

lewis Bunny Lewis Preemerge Dec 86

CONC. gms ai/ha	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	80	80	0
4	100	30	30	0
1	100	20	20	0
.25	100	0	0	0

THE BINOMIAL TEST SHOWS THAT 4 AND 16 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 6.871333

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
2	4.722749E-02	6.233911	4.788349	8.480846

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
3	1.052779	6.73642	1.187146E-03

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 1.56675
95 PERCENT CONFIDENCE LIMITS =-.0408144 AND 3.174315

LC50 = 5.624189
95 PERCENT CONFIDENCE LIMITS = .4146576 AND +INFINITY

LC10 = .8698909
95 PERCENT CONFIDENCE LIMITS = 0 AND 3.176267

LC25 = 2.09 gms ai/ha

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{Probit } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{Log } 5.624189 + \frac{4.3255 - 5}{1.56675}$$

$$\text{Log } LC_{25} = 0.75 + -.430509015$$

$$\text{Log } LC_{25} = 0.319490984$$

$$LC_{25} = 2.09 \text{ gms ai/ha}$$

lewis Rice Preemergence Dec 88

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CONC. gms ai/ha	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	90	90	0
4	100	40	40	0
1	100	20	20	0
.25	100	20	20	0

THE BINOMIAL TEST SHOWS THAT 4 AND 16 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 5.126533

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
3	3.179922E-02		3.727621	2.808985

5.15319

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
4	2.656777	14.34052	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 1.11404
95 PERCENT CONFIDENCE LIMITS =-.7018029 AND 2.929882

LC50 = 3.178705
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = .2302793
95 PERCENT CONFIDENCE LIMITS = 0 AND 2.393791

****

LC25 = 0.79 gms ai/ha

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \left(\frac{\text{Probit } 25\% - 5}{\text{slope}} \right)$$

$$\text{Log } LC_{25} = \text{Log } 3.178305 + \frac{(4.3255 - 5)}{1.11404}$$

$$\text{Log } LC_{25} = .5022505225 + -.6054540025$$

$$\text{Log } LC_{25} = -.1032037798$$

$$LC_{25} = 0.78849$$

lewis Nutsedge Preemergence Dec 86

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CONC. gms ai/ha	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
16	100	50	50	0
4	100	30	30	0
1	100	20	20	0
.25	100	0	0	0

THE BINOMIAL TEST SHOWS THAT 16 AND 16 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 16

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
1	.4610078	16	9.798513	85.51254

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
5	1.300682	4.631478	9.740412E-03

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 1.005483
95 PERCENT CONFIDENCE LIMITS =-.1412448 AND 2.15221

LC50 = 13.48773
95 PERCENT CONFIDENCE LIMITS = 2.684051 AND +INFINITY

LC10 = .7359768
95 PERCENT CONFIDENCE LIMITS = 0 AND 3.578847

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LC_{25} = 2.88 gms ai/ha

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{Probit } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{Log } 13,48773 + \frac{(4,3255 - 5)}{1,005483}$$

$$\text{Log } LC_{25} = 1,129938864 + -0,670821883$$

$$\text{Log } LC_{25} = 0,458566756$$

$$LC_{25} = 2,87[illegible]$$

lewis Soybean Postemerg. Dec 86

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CONC. gms ai/ha	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
16	100	100	100	0
4	100	100	100	0
1	100	90	90	0
.25	100	80	80	0

THE BINOMIAL TEST SHOWS THAT 0 AND .25 CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 2

THE MOVING AVERAGE METHOD CANNOT BE USED WITH THIS DATA SET BECAUSE NO SPAN WHICH PRODUCES MOVING AVERAGE ANGLES THAT BRACKET 45 DEGREES ALSO USES TWO PERCENT DEAD BETWEEN 0 AND 100 PERCENT.

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
5	.1474015	1	.1605274

SLOPE = 1.251298

95 PERCENT CONFIDENCE LIMITS = .7708885 AND 1.731708

LC50 = 6.135687E-02 .2613

95 PERCENT CONFIDENCE LIMITS = 1.477878E-02 AND .1213337

LC10 = .05.928122E-03

95 PERCENT CONFIDENCE LIMITS = 3.477171E-04 AND 2.145674E-02

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LC_{25} = 0.02 gms ai/ha

$$\text{Log } LC_{25} = \text{Log } \overset{\text{Les}}{50} + \frac{(\text{Prob.t } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{Log } 0.06135687 + \frac{(4,3255 - 5)}{1,251298}$$

$$\text{Log } LC_{25} = -1,212136803 + -0,53904026$$

$$\text{Log } LC_{25} = -1,751177064$$

$$LC_{25} = 0,01777$$

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CONC. gms ai/ha	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
16	100	100	100	0
4	100	100	100	0
1	100	50	50	0
.25	100	50	50	0

THE BINOMIAL TEST SHOWS THAT 1 AND .25 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .5

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
2	3.532447E-02	.5	.3734322	.6363298

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
5	3.98124	19.29953	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 1.476652
95 PERCENT CONFIDENCE LIMITS =-1.469719 AND 4.423023

LC50 = .4041605
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = .0557828
95 PERCENT CONFIDENCE LIMITS = 0 AND .6422286

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LC25 = 0.14 gms ai/ha

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{Probit } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{Log } 0.1404605 + \frac{(4.3255 - 5)}{1.476652}$$

$$\text{Log } LC_{25} = -0.393446133 + -0.456776545$$

$$\text{Log } LC_{25} = -.850222678$$

$$LC_{25} = 0.14118$$

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CONC. gms ai/ha	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	100	100	0
4	100	80	80	0
1	100	60	60.00001	0
.25	100	0	0	0

THE BINOMIAL TEST SHOWS THAT .25 AND 1 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .8475251

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
3	8.831122E-03	1.349167	1.156032	1.56356

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
4	1.64501	12.7994	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED
USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 2.273893
95 PERCENT CONFIDENCE LIMITS =-.6425557 AND 5.190342

LC50 = 1.19567
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = .3304439
95 PERCENT CONFIDENCE LIMITS = 0 AND 1.298003

LC25 = 0.6 gms ai/ha

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lewis

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	100	100	0
4	100	80	80	0
1	100	60	60.00001	0
.25	100	0	0	0

BECAUSE THE NUMBER OF ORGANISMS USED WAS SO LARGE, THE 95 PERCENT
CONFIDENCE INTERVALS CALCULATED FROM THE BINOMIAL PROBABILITY ARE
UNRELIABLE. USE THE INTERVALS CALCULATED BY THE OTHER TESTS.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .8475251

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{probit } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{Log } 1,19567 + \frac{(4,3255 - 5)}{2,273893}$$

$$\text{Log } LC_{25} = 0,077611332 + -0,296627853$$

$$\text{Log } LC_{25} = -0,219016521$$

$$LC_{25} = 0,60739$$

1.56356

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
4	1.64501	12.7994	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 2.273893
95 PERCENT CONFIDENCE LIMITS =-.6425557 AND 5.190342

LC50 = 1.19567
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = .3304439
95 PERCENT CONFIDENCE LIMITS = 0 AND 1.298003

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morningstar, Pontevens Dec 86

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
16	100	100	100	0
4	100	90	90	0
1	100	50	50	0
.25	100	20	20	0

BECAUSE THE NUMBER OF ORGANISMS USED WAS SO LARGE, THE 95 PERCENT CONFIDENCE INTERVALS CALCULATED FROM THE BINOMIAL PROBABILITY ARE UNRELIABLE. USE THE INTERVALS CALCULATED BY THE OTHER TESTS.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 1

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
2	3.179918E-02	.8830458	.7066343	1.09452

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
3	2.924907E-02	1	.2179482

SLOPE = 1.842809
95 PERCENT CONFIDENCE LIMITS = 1.527645 AND 2.157972

LC50 = .8340626
95 PERCENT CONFIDENCE LIMITS = .6742013 AND 1.018687

LC25 = 0.359

LC10 = .1706213
95 PERCENT CONFIDENCE LIMITS = .1109181 AND .2354872

****

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS
2	3.179918E-02	.8830458	.7066343

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{Probit } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{Log } .8340625 + \frac{(4.3255 - 5)}{1.842809}$$

$$\text{Log } LC_{25} = -0.07880404 + -.36601731?$$

$$\text{Log } LC_{25} = -0.4448187?$$

$$LC_{25} = 0.359$$

lewis Corn Postemergence Dec 86

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CONC. gms ai/ha	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	100	100	0
4	100	60	60.00001	0
1	100	0	0	0
.25	100	0	0	0

BECAUSE THE NUMBER OF ORGANISMS USED WAS SO LARGE, THE 95 PERCENT CONFIDENCE INTERVALS CALCULATED FROM THE BINOMIAL PROBABILITY ARE UNRELIABLE. USE THE INTERVALS CALCULATED BY THE OTHER TESTS.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 3.3901

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE ANY STATISTICALLY SOUND RESULTS.

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	100	100	.0
4	100	60	60.00001	0
1	100	0	0	0
.25	100	0	0	0

BECAUSE THE NUMBER OF ORGANISMS USED WAS SO LARGE, THE CONFIDENCE INTERVALS CALCULATED FROM THE BINOMIAL TEST WOULD BE UNRELIABLE. USE THE CONFIDENCE INTERVALS FROM THE OTHER TESTS.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 3.3901

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE ANY STATISTICALLY SOUND RESULTS.

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Path not found in 7870
Ok

Burrowed gnats
Lewis Corn Postemergence March 87

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CONC. gms a.i./ac	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	60	60.00001	0
8	100	60	60.00001	0
4	100	20	20	0

BECAUSE THE NUMBER OF ORGANISMS USED WAS SO LARGE, THE 95 PERCENT CONFIDENCE INTERVALS CALCULATED FROM THE BINOMIAL PROBABILITY ARE UNRELIABLE. USE THE INTERVALS CALCULATED BY THE OTHER TESTS.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 6.780553

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
2	.1095177	8.127463	6.596867	10.05219

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
3	60.24467	11.97364	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001.

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 1.758658
95 PERCENT CONFIDENCE LIMITS =-11.8916 AND 15.40891

LC50 = 9.074936
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

LC10 = 1.720687
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

****

$LC_{25} = 3.75$

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \left(\frac{\text{Probit } 25\% - 5}{\text{slope}} \right)$$

$$\text{Log } LC_{25} = \text{Log } 9.074936 + \left(\frac{4.3255 - 5}{1.756658} \right)$$

$$\text{Log } LC_{25} = 0.957843957 + -0.383931078$$

$$\text{Log } LC_{25} = 0.574312492$$

$$LC_{25} = 3.75$$

lewis Natalie Poulsen Dec 86

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CONC. gms ai/ha	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
16	100	50	50	0
4	100	40	40	0
1	100	40	40	0
.25	100	20	20	0

BECAUSE THE NUMBER OF ORGANISMS USED WAS SO LARGE, THE 95 PERCENT CONFIDENCE INTERVALS CALCULATED FROM THE BINOMIAL PROBABILITY ARE UNRELIABLE. USE THE INTERVALS CALCULATED BY THE OTHER TESTS.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 16

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
1	1.923774	16	5.035102	+INFINITY

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
3	.2203054	1	.153645

SLOPE = .4058348

95 PERCENT CONFIDENCE LIMITS = .2153493 AND .5963202

LC50 = 13.09321

95 PERCENT CONFIDENCE LIMITS = 5.635016 AND 83.08031

LC10 = 9.720621E-03

95 PERCENT CONFIDENCE LIMITS = 7.228748E-05 AND 6.084252E-02

****

LC25 = 0.285 gms ai/ha

$$\text{Log } LC_{25} = \text{Log } LC_{50} + \frac{(\text{Probit } 25\% - 5)}{\text{slope}}$$

$$\text{Log } LC_{25} = \text{Log } 13,09321 + \frac{(4,3255 - 5)}{1,4058348}$$

$$\text{Log } LC_{25} = 1,1170461354 + -1,6620006314$$

$$\text{Log } LC_{25} = -1,5449601179$$

$$LC_{25} = 0,285$$