Figure 8a-% Eggs Hatched;

The FREQ Procedure

Table of EGGS_HATCHED_YES by GROUP

Frequency / Col Pct	EGGS_HATCHED_YES	GROUP			
		1=Contro	2=CNP	3=AgCNP	Total
	Yes	275	431	237	943
		77.25	71.83	66.02	
	No	81	169	122	372
		22.75	28.17	33.98	
	Total	356	600	359	1315

Statistics for Table of EGGS_HATCHED_YES by GROUP

Statistic	DF	Value	Prob
Chi-Square	2	11.1211	0.0038
Likelihood Ratio Chi-Square	2	11.1565	0.0038
Mantel-Haenszel Chi-Square	1	11.1062	0.0009
Phi Coefficient		0.0920	
Contingency Coefficient		0.0916	
Cramer's V		0.0920	

Sample Size = 1315

Proportion Eggs Hatched with SE by Group

The FREQ Procedure
GROUP=1=Contro

EGGS_HATCHED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	275	77.25	275	77.25
No	81	22.75	356	100.00

Binomial Proportion

EGGS_HATCHED_YES = Yes	
Proportion	0.7725
ASE	0.0222
95% Lower Conf Limit	0.7289
95% Upper Conf Limit	0.8160

Exact Conf Limits

95% Lower Conf Limit	0.7253
95% Upper Conf Limit	0.8150

Test of H0: Proportion = 0.5

ASE under H0	0.0265
Z	10.2820
One-sided Pr > Z	<.0001
Two-sided Pr > |Z|	<.0001

The FREQ Procedure
GROUP=2=CNP

EGGS_HATCHED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	431	71.83	431	71.83
No	169	28.17	600	100.00

Binomial Proportion

EGGS_HATCHED_YES = Yes

Proportion	0.7183
ASE	0.0184
95% Lower Conf Limit	0.6823
95% Upper Conf Limit	0.7543

Exact Conf Limits

95% Lower Conf Limit	0.6805
95% Upper Conf Limit	0.7540

Test of H0: Proportion = 0.5

ASE under H0	0.0204
Z	10.6961
One-sided Pr > Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 600

Proportion Eggs Hatched with SE by Group

The FREQ Procedure
GROUP=3=AgCNP

EGGS_HATCHED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	237	66.02	237	66.02
No	122	33.98	359	100.00

Binomial Proportion

EGGS_HATCHED_YES = Yes	
Proportion	0.6602
ASE	0.0250
95% Lower Conf Limit	0.6112
95% Upper Conf Limit	0.7092

Exact Conf Limits

95% Lower Conf Limit	0.6086
95% Upper Conf Limit	0.7091

Test of H0: Proportion = 0.5

ASE under H0	0.0264
Z	6.0695
One-sided Pr > Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 359

Tukey Style Multiple Comparisons of Proportions

Compare	Diff	SE	q	q(.05)	Conclude
1 vs 3	7.15	1.51	4.73	3.314	R
1 vs 2	3.54	1.35	2.62	3.314	A
2 vs 3	3.61	1.35	2.67	3.314	A

Reference: Biostatistical Analysis, Fourth Edition, Jerrold Zar, 1999, p564.

Tukey Style Multiple Comparisons of Proportions

Compare	Diff	SE	q	q(.01)	Conclude
1 vs 3	7.15	1.51	4.73	4.12	R
1 vs 2	3.54	1.35	2.62	4.12	A
2 vs 3	3.61	1.35	2.67	4.12	A

Reference: Biostatistical Analysis, Fourth Edition, Jerrold Zar, 1999, p564.

Figure 8a-% Adults Emerged;

The FREQ Procedure

Frequency
Col Pct

Table of ADULTS_EMERGED_YES by GROUP

ADULTS_EMERGED_YES	GROUP			
	1=Control	2=CNP	3=AgCNP	Total
Yes	205	337	169	711
	57.58	56.17	47.08	
No	151	263	190	604
	42.42	43.83	52.92	
Total	356	600	359	1315

Statistics for Table of ADULTS_EMERGED_YES by GROUP

Statistic	DF	Value	Prob
Chi-Square	2	9.9052	0.0071
Likelihood Ratio Chi-Square	2	9.8857	0.0071
Mantel-Haenszel Chi-Square	1	7.9652	0.0048
Phi Coefficient		0.0868	
Contingency Coefficient		0.0865	
Cramer's V		0.0868	

Proportion Adults Emerged with SE by Group

GROUP=1=Control

ADULTS_EMERGED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	205	57.58	205	57.58
No	151	42.42	356	100.00

Binomial Proportion

ADULTS_EMERGED_YES = Yes

Proportion	0.5758
ASE	0.0262
95% Lower Conf Limit	0.5245
95% Upper Conf Limit	0.6272

Exact Conf Limits

95% Lower Conf Limit	0.5226
95% Upper Conf Limit	0.6278

Test of H0: Proportion = 0.5

ASE under H0	0.0265
Z	2.8620
One-sided Pr > Z	0.0021
Two-sided Pr > |Z|	0.0042

Sample Size = 356

Proportion Adults Emerged with SE by Group

The FREQ Procedure
GROUP=2=CNP

ADULTS_EMERGED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	337	56.17	337	56.17
No	263	43.83	600	100.00

Binomial Proportion

ADULTS_EMERGED_YES = Yes

Proportion	0.5617
ASE	0.0203
95% Lower Conf Limit	0.5220
95% Upper Conf Limit	0.6014

Exact Conf Limits

95% Lower Conf Limit	0.5209
95% Upper Conf Limit	0.6018

Test of H0: Proportion = 0.5

ASE under H0	0.0204
Z	3.0210
One-sided Pr > Z	0.0013
Two-sided Pr > |Z|	0.0025

Sample Size = 600

Proportion Adults Emerged with SE by Group

The FREQ Procedure
GROUP=3=AgCNP

ADULTS_EMERGED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	169	47.08	169	47.08
No	190	52.92	359	100.00

Binomial Proportion

ADULTS_EMERGED_YES = Yes	
Proportion	0.4708
ASE	0.0263
95% Lower Conf Limit	0.4191
95% Upper Conf Limit	0.5224

Exact Conf Limits

95% Lower Conf Limit	0.4182
95% Upper Conf Limit	0.5238

Test of H0: Proportion = 0.5

ASE under H0	0.0264
Z	-1.1083
One-sided Pr < Z	0.1339
Two-sided Pr > |Z|	0.2677

Sample Size = 359

Tukey Style Multiple Comparisons of Proportions

Compare	Diff	SE	q	q(.05)	Conclude
1 vs 3	6.02	1.51	3.99	3.314	R
1 vs 2	0.81	1.35	0.6	3.314	A
2 vs 3	5.21	1.35	3.86	3.314	R

Reference: Biostatistical Analysis, Fourth Edition, Jerrold Zar, 1999, p564.

Tukey Style Multiple Comparisons of Proportions

Compare	Diff	SE	q	q(.01)	Conclude
1 vs 3	6.02	1.51	3.99	4.12	A
1 vs 2	0.81	1.35	0.6	4.12	A
2 vs 3	5.21	1.35	3.86	4.12	A

Reference: Biostatistical Analysis, Fourth Edition, Jerrold Zar, 1999, p564.

Figure 8a-% Larvae Pupae;

The FREQ Procedure

Table of LARVAE_PUPAE_YES by GROUP

Frequency / Col Pct	LARVAE_PUPAE_YES	GROUP			
		1=Control	2=CNP	3=AgCNP	Total
	Yes	70	95	59	224
		19.66	15.83	16.43	
	No	286	505	300	1091
		80.34	84.17	83.57	
	Total	356	600	359	1315

Statistics for Table of LARVAE_PUPAE_YES by GROUP

Statistic	DF	Value	Prob
Chi-Square	2	2.4443	0.2946
Likelihood Ratio Chi-Square	2	2.3911	0.3025
Mantel-Haenszel Chi-Square	1	1.3103	0.2523
Phi Coefficient		0.0431	
Contingency Coefficient		0.0431	
Cramer's V		0.0431	

Proportion Larvae_Pupae with SE by Group

The FREQ Procedure
GROUP=1=Control

LARVAE_PUPAE_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	70	19.66	70	19.66
No	286	80.34	356	100.00

Binomial Proportion

LARVAE_PUPAE_YES = Yes	
Proportion	0.1966
ASE	0.0211
95% Lower Conf Limit	0.1553
95% Upper Conf Limit	0.2379

Exact Conf Limits

95% Lower Conf Limit	0.1566
95% Upper Conf Limit	0.2418

Test of H0: Proportion = 0.5

ASE under H0	0.0265
Z	-11.4480
One-sided Pr < Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 356

Proportion Larvae_Pupae with SE by Group

The FREQ Procedure
GROUP=2=CNP

LARVAE_PUPAE_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	95	15.83	95	15.83
No	505	84.17	600	100.00

Binomial Proportion

LARVAE_PUPAE_YES = Yes	
Proportion	0.1583
ASE	0.0149
95% Lower Conf Limit	0.1291
95% Upper Conf Limit	0.1875

Exact Conf Limits

95% Lower Conf Limit	0.1300
95% Upper Conf Limit	0.1900

Test of H0: Proportion = 0.5

ASE under H0	0.0204
Z	-16.7382
One-sided Pr < Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 600

Proportion Larvae_Pupae with SE by Group

The FREQ Procedure
GROUP=3=AgCNP

LARVAE_PUPAE_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	59	16.43	59	16.43
No	300	83.57	359	100.00

Binomial Proportion

LARVAE_PUPAE_YES = Yes	
Proportion	0.1643
ASE	0.0196
95% Lower Conf Limit	0.1260
95% Upper Conf Limit	0.2027

Exact Conf Limits

95% Lower Conf Limit	0.1275
95% Upper Conf Limit	0.2068

Test of H0: Proportion = 0.5

ASE under H0	0.0264
Z	-12.7195
One-sided Pr < Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 359

Figure 8b-% Female;

The FREQ Procedure

Table of FEMALE by GROUP

Frequency / Col Pct	FEMALE	GROUP			
		1=Control	2=CNP	3=AgCNP	Total
	Yes	73	166	73	312
		35.61	49.26	43.20	
	No	132	171	96	399
		64.39	50.74	56.80	
	Total	205	337	169	711

Statistics for Table of FEMALE by GROUP

Statistic	DF	Value	Prob
Chi-Square	2	9.6843	0.0079
Likelihood Ratio Chi-Square	2	9.7648	0.0076
Mantel-Haenszel Chi-Square	1	2.7191	0.0992
Phi Coefficient		0.1167	
Contingency Coefficient		0.1159	
Cramer's V		0.1167	

Sample Size = 711

Proportion Female with SE by Group

The FREQ Procedure
GROUP=1=Control

FEMALE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	73	35.61	73	35.61
No	132	64.39	205	100.00

Binomial Proportion

FEMALE = Yes

Proportion	0.3561
ASE	0.0334
95% Lower Conf Limit	0.2905
95% Upper Conf Limit	0.4216

Exact Conf Limits

95% Lower Conf Limit	0.2906
95% Upper Conf Limit	0.4258

Test of H0: Proportion = 0.5

ASE under H0	0.0349
Z	-4.1207
One-sided Pr < Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 205

Proportion Female with SE by Group

The FREQ Procedure
GROUP=2=CNP

FEMALE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	166	49.26	166	49.26
No	171	50.74	337	100.00

Binomial Proportion

FEMALE = Yes

Proportion	0.4926
ASE	0.0272
95% Lower Conf Limit	0.4392
95% Upper Conf Limit	0.5460

Exact Conf Limits

95% Lower Conf Limit	0.4380
95% Upper Conf Limit	0.5473

Test of H0: Proportion = 0.5

ASE under H0	0.0272
Z	-0.2724
One-sided Pr < Z	0.3927
Two-sided Pr > |Z|	0.7853

Sample Size = 337

Proportion Female with SE by Group

The FREQ Procedure
GROUP=3=AgCNP

FEMALE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	73	43.20	73	43.20
No	96	56.80	169	100.00

Binomial Proportion

FEMALE = Yes

Proportion	0.4320
ASE	0.0381
95% Lower Conf Limit	0.3573
95% Upper Conf Limit	0.5066

Exact Conf Limits

95% Lower Conf Limit	0.3561
95% Upper Conf Limit	0.5102

Test of H0: Proportion = 0.5

ASE under H0	0.0385
Z	-1.7692
One-sided Pr < Z	0.0384
Two-sided Pr > |Z|	0.0769

Sample Size = 169

Tukey Style Multiple Comparisons of Proportions

Compare	Diff	SE	q	q(.05)	Conclude
2 vs 1	7.9	1.79	4.41	3.314	R
2 vs 3	3.46	1.91	1.81	3.314	A
3 vs 1	4.43	2.1	2.11	3.314	A

Reference: Biostatistical Analysis, Fourth Edition, Jerrold Zar, 1999, p564.

Tukey Style Multiple Comparisons of Proportions

Compare	Diff	SE	q	q(.01)	Conclude
2 vs 1	7.9	1.79	4.41	4.12	R
2 vs 3	3.46	1.91	1.81	4.12	A
3 vs 1	4.43	2.1	2.11	4.12	A

Reference: Biostatistical Analysis, Fourth Edition, Jerrold Zar, 1999, p564.

Chi-Square Analysis for a 2x3 table

Tukey Style Multiple Comparisons of Proportions

Compare	Diff	SE	q	q(.001)	Conclude
2 vs 1	7.9	1.79	4.41	5.063	A
2 vs 3	3.46	1.91	1.81	5.063	A
3 vs 1	4.43	2.1	2.11	5.063	A

Reference: Biostatistical Analysis, Fourth Edition, Jerrold Zar, 1999, p564.

Figure 8c-% Eggs Hatched by Group;

The FREQ Procedure

Table of EGGS_HATCHED_YES by GROUP

Frequency
Col Pct

EGGS_HATCHED_YES	GROUP				
	1=Control_with	2=Control_without	3=CNP	4=AgCNP	Total
Yes	541	672	695	121	2029
	79.68	84.00	82.25	50.63	
No	138	128	150	118	534
	20.32	16.00	17.75	49.37	
Total	679	800	845	239	2563

Statistics for Table of EGGS_HATCHED_YES by GROUP

Statistic	DF	Value	Prob
Chi-Square	3	134.3220	<.0001
Likelihood Ratio Chi-Square	3	112.6797	<.0001
Mantel-Haenszel Chi-Square	1	33.8700	<.0001
Phi Coefficient		0.2289	
Contingency Coefficient		0.2232	
Cramer's V		0.2289	

Sample Size = 2563

EGGS_HATCHED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	541	79.68	541	79.68
No	138	20.32	679	100.00

Binomial Proportion

EGGS_HATCHED_YES = Yes

Proportion	0.7968
ASE	0.0154
95% Lower Conf Limit	0.7665
95% Upper Conf Limit	0.8270

Exact Conf Limits

95% Lower Conf Limit	0.7645
95% Upper Conf Limit	0.8264

Test of H0: Proportion = 0.5

ASE under H0	0.0192
Z	15.4657
One-sided Pr > Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 679

Eggs Hatched with SE by Group

The FREQ Procedure
GROUP=2=Control_without

EGGS_HATCHED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	672	84.00	672	84.00
No	128	16.00	800	100.00

Binomial Proportion

EGGS_HATCHED_YES = Yes	
Proportion	0.8400
ASE	0.0130
95% Lower Conf Limit	0.8146
95% Upper Conf Limit	0.8654

Exact Conf Limits

95% Lower Conf Limit	0.8127
95% Upper Conf Limit	0.8647

Test of H0: Proportion = 0.5

ASE under H0	0.0177
Z	19.2333
One-sided Pr > Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 800

Eggs Hatched with SE by Group

The FREQ Procedure
GROUP=3=CNP

EGGS_HATCHED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	695	82.25	695	82.25
No	150	17.75	845	100.00

Binomial Proportion

EGGS_HATCHED_YES = Yes	
Proportion	0.8225
ASE	0.0131
95% Lower Conf Limit	0.7967
95% Upper Conf Limit	0.8482

Exact Conf Limits

95% Lower Conf Limit	0.7950
95% Upper Conf Limit	0.8477

Test of H0: Proportion = 0.5

ASE under H0	0.0172
Z	18.7486
One-sided Pr > Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 845

Eggs Hatched with SE by Group

The FREQ Procedure
GROUP=4=AgCNP

EGGS_HATCHED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	121	50.63	121	50.63
No	118	49.37	239	100.00

Binomial Proportion

EGGS_HATCHED_YES = Yes	
Proportion	0.5063
ASE	0.0323
95% Lower Conf Limit	0.4429
95% Upper Conf Limit	0.5697

Exact Conf Limits

95% Lower Conf Limit	0.4411
95% Upper Conf Limit	0.5713

Test of H0: Proportion = 0.5

ASE under H0	0.0323
Z	0.1941
One-sided Pr > Z	0.4231
Two-sided Pr > |Z|	0.8461

Sample Size = 239

Tukey Style Multiple Comparisons of Proportions

Compare	Diff	SE	q	q(.001)	Conclude
2 vs 4	21.03	1.49	14.12	5.309	R
2 vs 1	3.22	1.06	3.03	5.309	A
2 vs 3	1.34	1	1.34	5.309	A
3 vs 4	19.7	1.48	13.31	5.309	R
3 vs 1	1.88	1.04	1.81	5.309	A
1 vs 4	17.82	1.52	11.72	5.309	R

Reference: Biostatistical Analysis, Fourth Edition, Jerrold Zar, 1999, p564.

Figure 8c-% Adults Emerged by Group;

Table of ADULTS_EMERGED_YES by GROUP

Frequency Col Pct	ADULTS_EMERGED_YES	GROUP				
		1=Control_with	2=Control_without	3=CNP	4=AgCNP	Total
	Yes	392 57.73	493 61.63	525 62.13	100 41.84	1510
	No	287 42.27	307 38.38	320 37.87	139 58.16	1053
	Total	679	800	845	239	2563

Statistics for Table of ADULTS_EMERGED_YES by GROUP

Statistic	DF	Value	Prob
Chi-Square	3	35.2133	<.0001
Likelihood Ratio Chi-Square	3	34.6482	<.0001
Mantel-Haenszel Chi-Square	1	3.8378	0.0501
Phi Coefficient		0.1172	
Contingency Coefficient		0.1164	
Cramer's V		0.1172	

ADULTS_EMERGED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	392	57.73	392	57.73
No	287	42.27	679	100.00

Binomial Proportion

ADULTS_EMERGED_YES = Yes

Proportion	0.5773
ASE	0.0190
95% Lower Conf Limit	0.5402
95% Upper Conf Limit	0.6145

Exact Conf Limits

95% Lower Conf Limit	0.5392
95% Upper Conf Limit	0.6148

Test of H0: Proportion = 0.5

ASE under H0	0.0192
Z	4.0295
One-sided Pr > Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 679

Adults Emerged with SE by Group

The FREQ Procedure
GROUP=2=Control_without

ADULTS_EMERGED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	493	61.63	493	61.63
No	307	38.38	800	100.00

Binomial Proportion

ADULTS_EMERGED_YES = Yes	
Proportion	0.6163
ASE	0.0172
95% Lower Conf Limit	0.5826
95% Upper Conf Limit	0.6499

Exact Conf Limits

95% Lower Conf Limit	0.5815
95% Upper Conf Limit	0.6501

Test of H0: Proportion = 0.5

ASE under H0	0.0177
Z	6.5761
One-sided Pr > Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 800

Adults Emerged with SE by Group

The FREQ Procedure
GROUP=3=CNP

ADULTS_EMERGED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	525	62.13	525	62.13
No	320	37.87	845	100.00

Binomial Proportion

ADULTS_EMERGED_YES = Yes

Proportion	0.6213
ASE	0.0167
95% Lower Conf Limit	0.5886
95% Upper Conf Limit	0.6540

Exact Conf Limits

95% Lower Conf Limit	0.5876
95% Upper Conf Limit	0.6541

Test of H0: Proportion = 0.5

ASE under H0	0.0172
Z	7.0522
One-sided Pr > Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 845

Adults Emerged with SE by Group

The FREQ Procedure
GROUP=4=AgCNP

ADULTS_EMERGED_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	100	41.84	100	41.84
No	139	58.16	239	100.00

Binomial Proportion

ADULTS_EMERGED_YES = Yes	
Proportion	0.4184
ASE	0.0319
95% Lower Conf Limit	0.3559
95% Upper Conf Limit	0.4810

Exact Conf Limits

95% Lower Conf Limit	0.3551
95% Upper Conf Limit	0.4837

Test of H0: Proportion = 0.5

ASE under H0	0.0323
Z	-2.5227
One-sided Pr < Z	0.0058
Two-sided Pr > |Z|	0.0116

Sample Size = 239

Tukey Style Multiple Comparisons of Proportions

Compare	Diff	SE	q	q(.001)	Conclude
3 vs 4	11.69	1.48	7.9	5.309	R
3 vs 1	2.57	1.04	2.47	5.309	A
3 vs 2	0.3	1	0.3	5.309	A
2 vs 4	11.39	1.49	7.65	5.309	R
2 vs 1	2.27	1.06	2.14	5.309	A
1 vs 4	9.12	1.52	6	5.309	R

Reference: Biostatistical Analysis, Fourth Edition, Jerrold Zar, 1999, p564.

Figure 8c-% Larvae Pupae by Group;

Chi-Square Analysis for a 2x4 table

The FREQ Procedure

Table of LARVAE_PUPAE_YES by GROUP

Frequency / Col Pct	LARVAE_PUPAE_YES	GROUP				
		1=Control_with	2=Control_without	3=CNP	4=AgCNP	Total
	Yes	147	179	160	21	507
		21.65	22.38	18.93	8.79	
	No	532	621	685	218	2056
		78.35	77.63	81.07	91.21	
	Total	679	800	845	239	2563

Statistics for Table of LARVAE_PUPAE_YES by GROUP

Statistic	DF	Value	Prob
Chi-Square	3	23.4730	<.0001
Likelihood Ratio Chi-Square	3	27.0513	<.0001
Mantel-Haenszel Chi-Square	1	14.2410	0.0002
Phi Coefficient		0.0957	
Contingency Coefficient		0.0953	
Cramer's V		0.0957	

Sample Size = 2563

Larvae Pupae with SE by Group

The FREQ Procedure

GROUP=1=Control_with

LARVAE_PUPAE_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	147	21.65	147	21.65
No	532	78.35	679	100.00

Binomial Proportion

LARVAE_PUPAE_YES = Yes

Proportion	0.2165
ASE	0.0158
95% Lower Conf Limit	0.1855
95% Upper Conf Limit	0.2475

Exact Conf Limits

95% Lower Conf Limit	0.1861
95% Upper Conf Limit	0.2494

Test of H0: Proportion = 0.5

ASE under H0	0.0192
Z	-14.7749
One-sided Pr < Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 679

Larvae Pupae with SE by Group

The FREQ Procedure
GROUP=2=Control_without

LARVAE_PUPAE_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	179	22.38	179	22.38
No	621	77.63	800	100.00

Binomial Proportion

LARVAE_PUPAE_YES = Yes	
Proportion	0.2238
ASE	0.0147
95% Lower Conf Limit	0.1949
95% Upper Conf Limit	0.2526

Exact Conf Limits

95% Lower Conf Limit	0.1953
95% Upper Conf Limit	0.2542

Test of H0: Proportion = 0.5

ASE under H0	0.0177
Z	-15.6271
One-sided Pr < Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 800

Larvae Pupae with SE by Group

The FREQ Procedure
GROUP=3=CNP

LARVAE_PUPAE_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	160	18.93	160	18.93
No	685	81.07	845	100.00

Binomial Proportion

LARVAE_PUPAE_YES = Yes	
Proportion	0.1893
ASE	0.0135
95% Lower Conf Limit	0.1629
95% Upper Conf Limit	0.2158

Exact Conf Limits

95% Lower Conf Limit	0.1635
95% Upper Conf Limit	0.2174

Test of H0: Proportion = 0.5

ASE under H0	0.0172
Z	-18.0605
One-sided Pr < Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 845

Larvae Pupae with SE by Group

The FREQ Procedure
GROUP=4=AgCNP

LARVAE_PUPAE_YES	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	21	8.79	21	8.79
No	218	91.21	239	100.00

Binomial Proportion

LARVAE_PUPAE_YES = Yes	
Proportion	0.0879
ASE	0.0183
95% Lower Conf Limit	0.0520
95% Upper Conf Limit	0.1238

Exact Conf Limits

95% Lower Conf Limit	0.0552
95% Upper Conf Limit	0.1312

Test of H0: Proportion = 0.5

ASE under H0	0.0323
Z	-12.7429
One-sided Pr < Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 239

Tukey Style Multiple Comparisons of Proportions

Compare	Diff	SE	q	q(.001)	Conclude
2 vs 4	10.84	1.49	7.28	5.309	R
2 vs 3	2.43	1	2.43	5.309	A
2 vs 1	0.5	1.06	0.47	5.309	A
1 vs 4	10.35	1.52	6.81	5.309	R
1 vs 3	1.94	1.04	1.86	5.309	A
3 vs 4	8.41	1.48	5.68	5.309	R

Reference: Biostatistical Analysis, Fourth Edition, Jerrold Zar, 1999, p564.

Figure 8d-% Female by Group;

Chi-Square Analysis for a 2x5 table

The FREQ Procedure

Table of FEMALE by GROUP

Frequency / Col Pct	FEMALE	GROUP				
		1=Control	2=Control	3=CNP	4=AgCNP	Total
	Yes	159	195	244	51	649
		40.56	39.55	46.48	51.00	
	No	233	298	281	49	861
		59.44	60.45	53.52	49.00	
	Total	392	493	525	100	1510

Statistics for Table of FEMALE by GROUP

Statistic	DF	Value	Prob
Chi-Square	3	8.5404	0.0361
Likelihood Ratio Chi-Square	3	8.5192	0.0364
Mantel-Haenszel Chi-Square	1	6.3126	0.0120
Phi Coefficient		0.0752	
Contingency Coefficient		0.0750	
Cramer's V		0.0752	

Sample Size = 1510

Proportion Female with SE by Group

The FREQ Procedure
GROUP=1=Control

FEMALE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	159	40.56	159	40.56
No	233	59.44	392	100.00

Binomial Proportion

FEMALE = Yes

Proportion	0.4056
ASE	0.0248
95% Lower Conf Limit	0.3570
95% Upper Conf Limit	0.4542

Exact Conf Limits

95% Lower Conf Limit	0.3566
95% Upper Conf Limit	0.4561

Test of H0: Proportion = 0.5

ASE under H0	0.0253
Z	-3.7376
One-sided Pr < Z	<.0001
Two-sided Pr > |Z|	0.0002

Sample Size = 392

Proportion Female with SE by Group

The FREQ Procedure
GROUP=2=Control

FEMALE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	195	39.55	195	39.55
No	298	60.45	493	100.00

Binomial Proportion

FEMALE = Yes

Proportion	0.3955
ASE	0.0220
95% Lower Conf Limit	0.3524
95% Upper Conf Limit	0.4387

Exact Conf Limits

95% Lower Conf Limit	0.3521
95% Upper Conf Limit	0.4402

Test of H0: Proportion = 0.5

ASE under H0	0.0225
Z	-4.6389
One-sided Pr < Z	<.0001
Two-sided Pr > |Z|	<.0001

Sample Size = 493

Proportion Female with SE by Group

The FREQ Procedure
GROUP=3=CNP

FEMALE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	244	46.48	244	46.48
No	281	53.52	525	100.00

Binomial Proportion

FEMALE = Yes

Proportion	0.4648
ASE	0.0218
95% Lower Conf Limit	0.4221
95% Upper Conf Limit	0.5074

Exact Conf Limits

95% Lower Conf Limit	0.4214
95% Upper Conf Limit	0.5085

Test of H0: Proportion = 0.5

ASE under H0	0.0218
Z	-1.6148
One-sided Pr < Z	0.0532
Two-sided Pr > |Z|	0.1064

Sample Size = 525

Proportion Female with SE by Group

The FREQ Procedure
GROUP=4=AgCNP

FEMALE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	51	51.00	51	51.00
No	49	49.00	100	100.00

Binomial Proportion

FEMALE = Yes

Proportion	0.5100
ASE	0.0500
95% Lower Conf Limit	0.4120
95% Upper Conf Limit	0.6080

Exact Conf Limits

95% Lower Conf Limit	0.4080
95% Upper Conf Limit	0.6114

Test of H0: Proportion = 0.5

ASE under H0	0.0500
Z	0.2000
One-sided Pr > Z	0.4207
Two-sided Pr > |Z|	0.8415

Sample Size = 100

Tukey Style Multiple Comparisons of Proportions

Compare	Diff	SE	q	q(.05)	Conclude
4 vs 2	6.59	2.22	2.97	3.633	A
4 vs 1	6	2.26	2.65	3.633	A
4 vs 3	2.58	2.21	1.17	3.633	A
3 vs 2	4	1.27	3.15	3.633	A
3 vs 1	3.41	1.35	2.53	3.633	A
1 vs 2	0.59	1.37	0.43	3.633	A

Reference: Biostatistical Analysis, Fourth Edition, Jerrold Zar, 1999, p564.

OK, this is interesting. Although the overall chi-square was significant, after adjusting the p-values for multiple comparisons, no comparison met the significance test at the $\alpha = 0.05$ level.