

Appendix 4.6: Statistical analysis of fruit set obtained from different pollination experiments in *A. sessilis*.

4.6.1: Test of normality

	Experiments	Species	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
			Statistic	df	Sig.	Statistic	df	Sig.
Fruit set (%)	Open pollination	<i>A. sessilis</i> 'Red'	0.18	23.00	0.05	0.91	23.00	0.05
		<i>A. sessilis</i> 'Green'	0.18	25.00	0.05	0.89	25.00	0.01
		<i>A. brasiliانا</i> (parent plant)	0.17	8.00	0.20	0.95	8.00	0.69
	Self pollination (individual flower)	<i>A. sessilis</i> 'Red'	0.24	10.00	0.99	0.93	10.00	0.39
		<i>A. sessilis</i> 'Green'	0.17	10.00	0.20	0.94	10.00	0.60
	Self pollination (inflorescence)	<i>A. sessilis</i> 'Red'	0.99	30.00	0.20	0.95	30.00	0.18
		<i>A. sessilis</i> 'Green'	0.14	17.00	0.20	0.94	17.00	0.29
		<i>A. brasiliانا</i> (parent plant)	0.31	4.00	.	0.88	4.00	0.36
		<i>A. brasiliانا</i> (offspring)	0.18	6.00	0.20	0.92	6.00	0.53
	Geitonogamy	<i>A. sessilis</i> 'Red'	0.21	8.00	0.20	0.92	8.00	0.40
	Emasculated and bagged flower	<i>A. sessilis</i> 'Green'	0.28	8.00	0.06	0.85	8.00	0.10
		<i>A. sessilis</i> 'Green'	0.25	4.00	.	0.95	4.00	0.68
	Cross pollination ( <i>A. sessilis</i> 'Red' stigma pollinated with pollen grains of <i>A. sessilis</i> 'Green')	<i>A. sessilis</i> 'Red'	0.26	10.00	0.05	0.85	10.00	0.06

#### 4.6.2: One way ANOVA and Post Hoc test.

##### Test of homogeneity of variances

Variety	Levene Statistic	df1	df2	Sig.
Red	5.65	5.00	83.00	0.00
Green	15.69	2.00	49.00	0.00

##### ANOVA

	Leaf form	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	red	55408.97	5.00	11081.79	37.33	0.00
	green	12426.50	2.00	6213.25	25.57	0.00
Within Groups	red	24638.89	83	296.85		
	green	11904.80	49.00	242.96		
Total	red	80047.85	88			
	green	24331.31	51.00			

4.6.2.1. *A. sessilis* 'Red'

Games Howell Post Hoc test

(I) Pollination	(J) Pollination	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
open pollination	self pollination individual flower	38.21	4.84	0.00	22.93	53.49
	self pollination inflorescence	21.47	5.30	0.00	5.73	37.20
	Emasculated & bagged flower	65.49	3.47	0.00	54.90	76.07
	cross pollination	65.21	4.72	0.00	50.39	80.03
	geitonogamy	64.28	4.01	0.00	51.81	76.76
self pollination individual flower	open pollination	-38.21	4.84	0.00	-53.49	-22.93
	self pollination inflorescence	-16.74	5.90	0.08	-34.65	1.16
	Emasculated & bagged flower	27.28	4.33	0.00	12.90	41.66
	cross pollination	27.00	5.39	0.00	9.88	44.12
	geitonogamy	26.08	4.78	0.00	10.61	41.54
self pollination inflorescence	open pollination	-21.47	5.30	0.00	-37.20	-5.73
	self pollination individual flower	16.74	5.90	0.08	-1.16	34.65
	Emasculated & bagged flower	44.02	4.84	0.00	29.46	58.58
	cross pollination	43.74	5.80	0.00	26.19	61.29
	geitonogamy	42.82	5.24	0.00	27.02	58.61
emasculated & bagged flower	open pollination	-65.49	3.47	0.00	-76.07	-54.90
	self pollination individual flower	-27.28	4.33	0.00	-41.66	-12.90
	self pollination inflorescence	-44.02	4.84	0.00	-58.58	-29.46
	cross pollination	-0.28	4.19	1.00	-14.14	13.58
	geitonogamy	-1.20	3.37	1.00	-12.46	10.05
cross pollination	open pollination	-65.21	4.72	0.00	-80.03	-50.39
	self pollination individual flower	-27.00	5.39	0.00	-44.12	-9.88
	self pollination inflorescence	-43.74	5.80	0.00	-61.29	-26.19
	Emasculated & bagged flower	0.28	4.19	1.00	-13.58	14.14
	geitonogamy	-0.92	4.65	1.00	-15.94	14.10
geitonogamy	open pollination	-64.28	4.01	0.00	-76.76	-51.81
	self pollination individual flower	-26.08	4.78	0.00	-41.54	-10.61
	self pollination inflorescence	-42.82	5.24	0.00	-58.61	-27.02
	Emasculated & bagged flower	1.20	3.37	1.00	-10.05	12.46
	cross pollination	0.92	4.65	1.00	-14.10	15.94

4.6.2.2. *A. sessilis* 'Green'

Games-Howell Post Hoc test

(I) Pollination	(J) Pollination	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
open pollination	self pollination individual flower	33.76	6.54	0.00	15.76	51.75
	self pollination inflorescence	29.00	5.29	0.00	15.51	42.49
self pollination individual flower	open	-33.76	6.54	0.00	-51.75	-15.76
	self pollination inflorescence	-4.76	8.20	0.83	-25.53	16.01
self pollination inflorescence	open	-29.00	5.29	0.00	-42.49	-15.51
	self pollination individual flower	4.76	8.20	0.83	-16.01	25.53

4.6.3: Independent sample t- test.

4.6.3.1: Open pollination between the red and green leaf forms.

		Levene's test for equality of variances		T-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
									Lower	Upper
Fruit set (%)	Equal variances assumed	4.89	0.03	-4.04	46.00	0.00	-12.55	3.11	-18.80	-6.30
	Equal variances not assumed			-3.93	31.24	0.00	-12.55	3.19	-19.05	-6.05

4.6.3.2: Self pollination (individual flower) between the red and green leaf forms.

		Levene's test for equality of variances		T-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
									Lower	Upper
Fruit set (%)	Equal variances assumed	3.80	0.07	-2.27	18.00	0.04	-17.00	7.49	-32.74	-1.26
	Equal variances not assumed			-2.27	14.84	0.04	-17.00	7.49	-32.98	-1.02