

Anexo I

Curvas Normales Estándar de los Ejemplares Individuales

(Normal Standard Curves of Individual Samples)

AI-1 — AI-68

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Cuadro 1. Datos estadísticos de C01 *S. saccata*.

C01 *S. saccata* P#311095-1 El Salvador, Guatemala, y México

#	Células del Haz (Adaxial Cells)					Células del Envés (Abaxial Cells)					Células Guardia (Guard Cells)					Células Subsidiarias (Subsidiary Cells)				
	Largo (Lh)		Ancho (Ah)		Área	Largo (Le)		Ancho (Ae)		Área	Largo (Lg)		Ancho (Ag)		Área	Largo (Ls)		Ancho (As)		Área
	Indice	μ	Indice	μ	μ_m	Indice	μ	Indice	μ	μ_m	Indice	μ	Indice	μ	μ_m	Indice	μ	Indice	μ	μ_m
1	0.70	75.38	0.45	48.46	3653.25	0.60	64.62	0.32	34.46	2226.75	0.50	53.85	0.20	21.54	1159.76	0.80	86.15	0.32	34.46	2968.99
2	0.60	64.62	0.38	40.92	2644.26	0.75	80.77	0.32	34.46	2783.43	0.50	53.85	0.30	32.31	1739.64	0.51	54.92	0.30	32.31	1774.44
3	0.85	91.54	0.35	37.69	3450.30	0.50	53.85	0.40	43.08	2319.53	0.42	45.23	0.30	32.31	1461.30	0.60	64.62	0.32	34.46	2226.75
4	0.72	77.54	0.40	43.08	3340.12	0.65	70.00	0.32	34.46	2412.31	0.40	43.08	0.30	32.31	1391.72	0.55	59.23	0.50	53.85	3189.33
5	0.70	75.38	0.36	38.77	2922.60	0.75	80.77	0.35	37.69	3044.38	0.45	48.46	0.25	26.92	1304.73	0.70	75.38	0.36	38.77	2922.60
6	0.65	70.00	0.40	43.08	3015.38	0.45	48.46	0.25	26.92	1304.73	0.35	37.69	0.20	21.54	811.83	0.55	59.23	0.25	26.92	1594.67
7	0.90	96.92	0.38	40.92	3966.39	0.60	64.62	0.38	40.92	2644.26	0.45	48.46	0.30	32.31	1565.68	0.65	70.00	0.30	32.31	2261.54
8	0.80	86.15	0.45	48.46	4175.15	0.75	80.77	0.30	32.31	2609.47	0.35	37.69	0.20	21.54	811.83	0.52	56.00	0.40	43.08	2412.31
9	0.68	73.23	0.30	32.31	2365.92	0.42	45.23	0.30	32.31	1461.30	0.40	43.08	0.30	32.31	1391.72	0.60	64.62	0.25	26.92	1739.64
10	0.90	96.92	0.35	37.69	3653.25	0.60	64.62	0.38	40.92	2644.26	0.45	48.46	0.30	32.31	1565.68	0.51	54.92	0.20	21.54	1182.96
11	0.68	73.23	0.45	48.46	3548.88	0.70	75.38	0.40	43.08	3247.34	0.50	53.85	0.35	37.69	2029.59	0.60	64.62	0.20	21.54	1391.72
12	0.70	75.38	0.30	32.31	2435.50	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.30	32.31	1565.68	0.65	70.00	0.30	32.31	2261.54
13	0.70	75.38	0.35	37.69	2841.42	0.38	62.46	0.28	30.15	1883.46	0.50	53.85	0.30	32.31	1739.64	0.70	75.38	0.50	53.85	4059.17
14	0.75	80.77	0.35	37.69	3044.38	0.55	59.23	0.30	32.31	1913.61	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.30	32.31	1739.64
15	0.65	70.00	0.36	38.77	2713.85	0.40	43.08	0.35	37.69	1623.67	0.45	48.46	0.30	32.31	1565.68	0.70	75.38	0.35	37.69	2841.42
16	0.56	60.31	0.38	40.92	2467.98	0.50	53.85	0.30	32.31	1739.64	0.45	48.46	0.30	32.31	1565.68	0.65	70.00	0.25	26.92	1884.62
17	0.65	70.00	0.45	48.46	3392.31	0.48	51.69	0.30	32.31	1670.06	0.41	44.15	0.30	32.31	1426.51	0.50	53.85	0.30	32.31	1739.64
18	1.10	118.46	0.40	43.08	5102.96	0.60	64.62	0.30	32.31	2087.57	0.41	44.15	0.25	26.92	1188.76	0.70	75.38	0.20	21.54	1623.67
19	0.45	48.46	0.55	59.23	2870.41	0.60	64.62	0.30	32.31	2087.57	0.40	43.08	0.30	32.31	1391.72	0.60	64.62	0.20	21.54	1391.72
20	0.60	64.62	0.30	32.31	2087.57	0.50	53.85	0.40	43.08	2319.53	0.49	52.77	0.34	36.62	1932.17	0.60	64.62	0.20	21.54	1391.72
21	0.60	64.62	0.35	37.69	2435.50	0.45	48.46	0.38	40.92	1983.19	0.41	44.15	0.36	38.77	1711.81	0.68	73.23	0.20	21.54	1577.28
22	0.82	88.31	0.30	32.31	2853.02	0.80	86.15	0.40	43.08	3711.24	0.41	44.15	0.35	37.69	1664.26	0.58	62.46	0.25	26.92	1681.66
23	0.52	56.00	0.40	43.08	2412.31	0.50	53.85	0.35	37.69	2029.59	0.50	53.85	0.25	26.92	1449.70	0.60	64.62	0.25	26.92	1739.64
24	0.62	66.77	0.40	43.08	2876.21	0.52	56.00	0.35	37.69	2110.77	0.49	52.77	0.30	32.31	1704.85	0.40	43.08	0.40	43.08	1855.62
25	0.78	84.00	0.35	37.69	3166.15	0.55	59.23	0.35	37.69	2232.54	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.20	21.54	1159.76
Suma	1904.00			1024.15	77435.07		1529.23		902.46	55481.91	10.94	1178.15	7.25	780.77	36923.38		1610.00		786.15	50612.06
Promedio	76.16			40.97	3097.46		61.17		36.10	2213.25	0.44	47.13	0.29	31.23	1575.94		64.40		31.45	2024.48
D.E. (σ)	14.81			6.31	675.48		12.40		4.65	583.79	0.05	5.00	0.04	4.67	286.51		9.63		9.53	704.80

Promedio del área de las células del haz: 3097.40 micras cuadradas = 322.85 células/mm cuadrados
 Promedio del área de las células del envés: 2219.28 micras cuadradas = 450.60 células/mm cuadrados
 El promedio de las células del haz es 1.40 veces el promedio de las células del envés.
 El promedio del largo de las células guardia es 1.51 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es 2.05 veces el promedio del ancho.

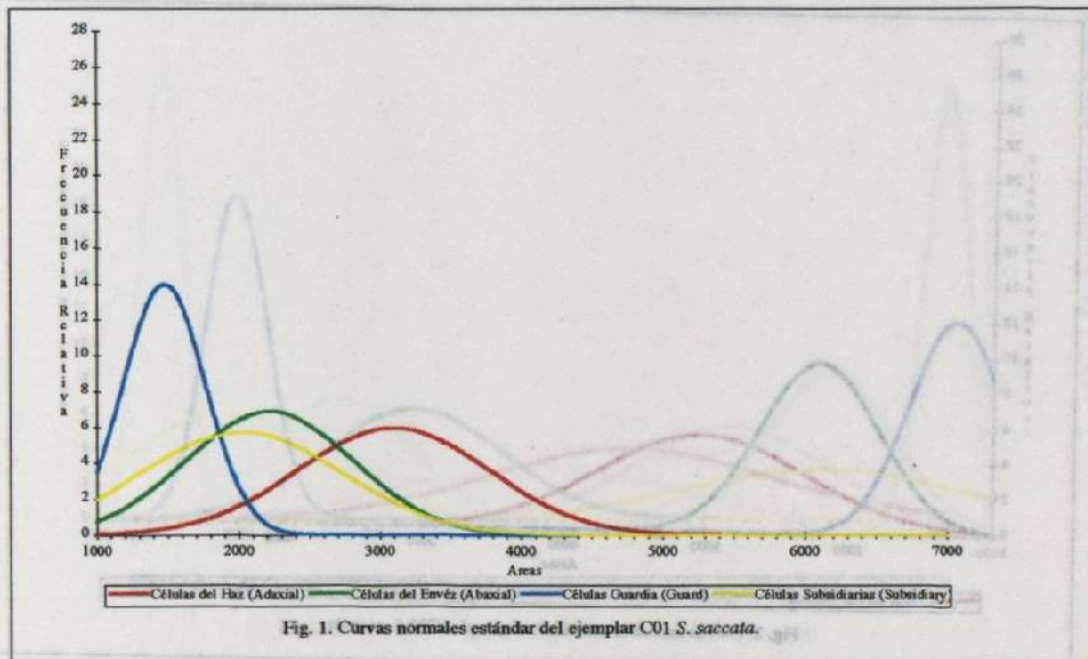


Fig. 1. Curvas normales estándar del ejemplar C01 *S. saccata*.

Cuadro 2. Datos estadísticos de C02 *S. saccata*.

C02 *S. saccata* (Gim) Pl#290496-4 El Salvador y norte hasta Guatemala(1) y México

#	Células del Haz (Adaxial Cells)			Células del Envés (Abaxial Cells)			Células Guardia (Guard Cells)			Células Subsidiarias (Subsidiary Cells)										
	Largo (Lh)	Ancho (Ah)	Área	Largo (Le)	Ancho (Ae)	Área	Largo (Lg)	Ancho (Ag)	Área	Largo (Ls)	Ancho (As)	Área								
	Indice μ	Indice μ	μm^2	Indice μ	Indice μ	μm^2	Indice μ	Indice μ	μm^2	Indice μ	Indice μ	μm^2								
1	0.50	53.85	0.45	48.46	2609.47	0.55	59.23	0.30	32.31	1913.61	0.40	43.08	0.30	32.31	1391.72	0.65	70.00	0.72	77.54	5427.69
2	0.65	70.00	0.30	32.31	2261.54	0.50	53.85	0.30	32.31	1739.64	0.35	37.69	0.25	26.92	1014.79	0.60	64.62	0.50	53.85	3479.29
3	0.60	64.62	0.35	37.69	2435.50	0.50	53.85	0.30	32.31	1739.64	0.40	43.08	0.20	21.54	927.81	0.55	59.23	0.30	32.31	1913.61
4	0.75	80.77	0.35	37.69	3044.38	0.55	59.23	0.40	43.08	2551.48	0.40	43.08	0.35	37.69	1623.67	0.70	75.38	0.30	32.31	2435.50
5	0.80	86.15	0.30	32.31	2783.43	0.55	59.23	0.30	32.31	1913.61	0.40	43.08	0.25	26.92	1159.76	0.60	64.62	0.20	21.54	1391.72
6	0.70	75.38	0.25	26.92	2029.59	0.50	53.85	0.35	37.69	2029.59	0.40	43.08	0.30	32.31	1391.72	0.60	64.62	0.60	64.62	4175.15
7	0.72	77.54	0.30	32.31	2505.09	0.90	96.92	0.32	34.46	3340.12	0.35	37.69	0.30	32.31	1217.75	0.50	53.85	0.20	21.54	1159.76
8	0.85	91.54	0.25	26.92	2464.50	0.65	70.00	0.30	32.31	2261.54	0.35	37.69	0.30	32.31	1217.75	0.55	59.23	0.55	59.23	3508.28
9	0.65	70.00	0.45	48.46	3392.31	0.55	59.23	0.35	37.69	2232.54	0.35	37.69	0.30	32.31	1217.75	0.40	43.08	0.30	32.31	1391.72
10	0.90	96.92	0.32	34.46	3340.12	0.55	59.23	0.40	43.08	2551.48	0.35	37.69	0.30	32.31	1217.75	0.45	48.46	0.25	26.92	1304.73
11	0.68	73.23	0.30	32.31	2365.92	0.60	64.62	0.38	40.92	2644.26	0.35	37.69	0.25	26.92	1014.79	0.50	53.85	0.55	59.23	3189.35
12	0.75	80.77	0.50	53.85	4349.11	0.60	64.62	0.35	37.69	2435.50	0.35	37.69	0.20	21.54	811.83	0.55	59.23	0.45	48.46	2870.41
13	0.55	59.23	0.40	43.08	2551.48	0.50	53.85	0.45	48.46	2609.47	0.35	37.69	0.30	32.31	1217.75	0.55	59.23	0.40	43.08	2551.48
14	0.75	80.77	0.35	37.69	3044.38	0.60	64.62	0.35	37.69	2435.50	0.30	32.31	0.20	21.54	695.86	0.45	48.46	0.30	32.31	1565.68
15	0.65	70.00	0.48	51.69	3618.46	0.35	37.69	0.42	45.23	1704.85	0.40	43.08	0.35	37.69	1623.67	0.45	48.46	0.25	26.92	1304.73
16	0.90	96.92	0.38	40.92	3966.39	0.50	53.85	0.40	43.08	2319.33	0.50	53.85	0.30	32.31	1739.64	0.40	43.08	0.25	26.92	1159.76
17	0.90	96.92	0.45	48.46	4697.04	0.60	64.62	0.38	40.92	2644.26	0.30	32.31	0.25	26.92	869.82	0.40	43.08	0.20	21.54	927.81
18	0.58	62.46	0.45	48.46	3026.98	0.45	48.46	0.35	37.69	1826.63	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.25	26.92	1449.70
19	0.80	86.15	0.48	51.69	4453.49	0.45	48.46	0.30	32.31	1565.68	0.40	43.08	0.25	26.92	1159.76	0.60	64.62	0.30	32.31	2087.57
20	0.80	86.15	0.32	34.46	2968.99	0.55	59.23	0.40	43.08	2551.48	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.40	43.08	2319.53
21	0.70	75.38	0.30	32.31	2435.50	0.55	59.23	0.40	43.08	2551.48	0.40	43.08	0.25	26.92	1159.76	0.50	53.85	0.28	30.15	1623.67
22	0.55	59.23	0.35	37.69	2232.54	0.45	48.46	0.35	37.69	1826.63	0.50	53.85	0.30	32.31	1739.64	0.42	45.23	0.25	26.92	1217.75
23	0.60	64.62	0.50	53.85	3479.29	0.50	53.85	0.35	37.69	2029.59	0.50	53.85	0.35	37.69	2029.59	0.45	48.46	0.40	43.08	2087.57
24	0.82	88.31	0.35	37.69	3328.32	0.50	53.85	0.35	37.69	2029.59	0.35	37.69	0.20	21.54	811.83	0.40	43.08	0.30	32.31	1391.72
25	0.65	70.00	0.35	37.69	2638.46	0.50	53.85	0.35	37.69	2029.59	0.45	48.46	0.30	32.31	1565.68	0.60	64.62	0.20	21.54	1391.72
Suma	1916.92	999.38		76022.47	1453.85	958.46	55477.27	9.70	1044.62	6.95	748.46	31603.55	1386.00				936.92	53325.91		
Promedio	76.68	39.98		3042.96	58.15	38.34	2219.50	0.39	41.78	21.03	29.94	1264.14	55.44				37.48	2133.04		
D.E (σ)	12.45	8.38		732.53	10.54	4.62	413.71	0.05	5.87	0.05	4.94	330.48	9.15				15.22	1109.53		

Promedio del área de las células del haz: 3040.90 micras cuadradas 328.85 células/mm cuadrados
 Promedio del área de las células del envés: 2219.09 micras cuadradas 450.64 células/mm cuadrados
 El promedio del largo de las células del haz es 1.37 veces el promedio de las células del envés.
 El promedio del largo de las células guardia es 1.40 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es 1.48 veces el promedio del ancho.

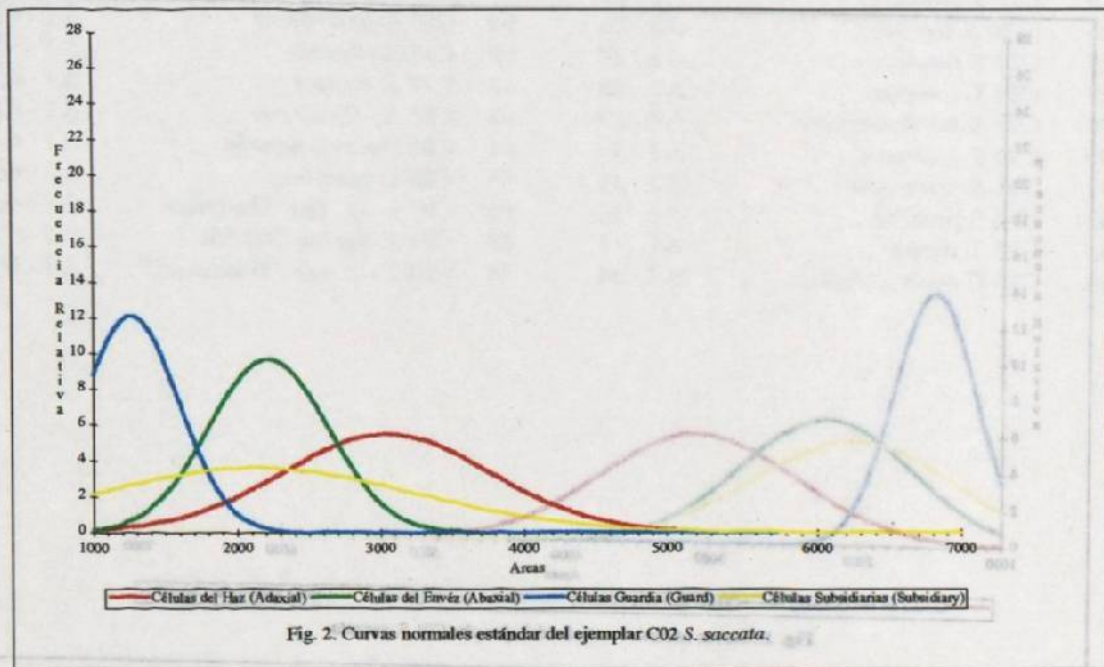


Fig. 2. Curvas normales estándar del ejemplar C02 *S. saccata*.

Cuadro 3. Datos estadísticos de C03 *S. insignis*.

C03 *S. insignis* (Coll) P#120777-2A Colombia

#	Células del Haz (Adaxial Cells)					Células del Envés (Abaxial Cells)					Células Guardia (Guard Cells)					Células Subsidiarias (Subsidiary Cells)				
	Largo (Lh)		Ancho (Ah)		Area	Largo (Le)		Ancho (Ae)		Area	Largo (Lg)		Ancho (Ag)		Area	Largo (La)		Ancho (As)		Area
	Indice	μ_m	Indice	μ_m	μ_m	Indice	μ_m	Indice	μ_m	μ_m	Indice	μ_m	Indice	μ_m	μ_m	Indice	μ_m	Indice	μ_m	μ_m
1	1.10	118.46	0.50	53.85	6378.70	0.60	64.62	0.50	53.85	3479.29	0.50	53.85	0.39	42.00	2261.54	0.55	59.23	0.30	32.31	1913.61
2	0.95	102.31	0.45	48.46	4957.99	0.70	75.38	0.55	59.23	4465.09	0.42	45.23	0.36	38.77	1753.56	0.55	59.23	0.25	26.92	1594.67
3	0.65	70.00	0.31	33.38	2336.92	0.68	73.23	0.42	45.23	3312.28	0.45	48.46	0.35	37.69	1826.63	0.60	64.62	0.30	32.31	2087.57
4	0.88	94.77	0.40	43.08	4082.37	0.60	64.62	0.40	43.08	2783.43	0.48	51.69	0.35	37.69	1948.40	0.55	59.23	0.20	21.54	1275.74
5	1.00	107.69	0.40	43.08	4639.05	0.65	70.00	0.45	48.46	3392.31	0.50	53.85	0.40	43.08	2319.53	0.60	64.62	0.20	21.54	1391.72
6	0.70	75.38	0.40	43.08	3247.34	0.78	84.00	0.40	43.08	3618.46	0.46	49.54	0.38	40.92	2027.27	0.55	59.23	0.35	37.69	2232.54
7	1.05	113.08	0.40	43.08	4871.01	0.50	53.85	0.30	32.31	1739.64	0.52	56.00	0.42	45.23	2532.92	0.65	70.00	0.20	21.54	1507.69
8	0.65	70.00	0.50	53.85	3769.23	0.68	73.23	0.42	45.23	3312.28	0.50	53.85	0.40	43.08	2319.53	0.50	53.85	0.30	32.31	1739.64
9	0.65	70.00	0.50	53.85	3769.23	0.62	66.77	0.38	40.92	2732.40	0.48	51.69	0.36	38.77	2004.07	0.45	48.46	0.25	26.92	1304.73
10	0.75	80.77	0.50	53.85	4349.11	0.65	70.00	0.50	53.85	3769.23	0.45	48.46	0.40	43.08	2087.57	0.50	53.85	0.28	30.15	1623.67
11	0.90	96.92	0.46	49.54	4801.42	0.70	75.38	0.42	45.23	3409.70	0.46	49.54	0.36	38.77	1920.57	0.55	59.23	0.30	32.31	1913.61
12	0.80	86.15	0.50	53.85	4639.05	0.52	56.00	0.45	48.46	2713.85	0.48	51.69	0.40	43.08	2226.75	0.55	59.23	0.20	21.54	1275.74
13	0.85	91.54	0.50	53.85	4928.99	0.58	62.46	0.38	40.92	2556.12	0.46	49.54	0.35	37.69	1867.22	0.45	48.46	0.20	21.54	1043.79
14	0.80	86.15	0.50	53.85	4639.05	0.61	65.69	0.48	51.69	3395.79	0.45	48.46	0.40	43.08	2087.57	0.40	43.08	0.40	43.08	1855.62
15	0.70	75.38	0.55	59.23	4465.09	0.60	64.62	0.45	48.46	3131.36	0.48	51.69	0.40	43.08	2226.75	0.50	53.85	0.40	43.08	2319.53
16	1.04	112.00	0.50	53.85	6030.77	0.55	59.23	0.40	43.08	2551.48	0.45	48.46	0.35	37.69	1826.63	0.65	70.00	0.30	32.31	2261.54
17	0.90	96.92	0.48	51.69	5010.18	0.60	64.62	0.45	48.46	3131.36	0.45	48.46	0.36	38.77	1878.82	0.45	48.46	0.30	32.31	1565.68
18	1.10	118.46	0.52	56.00	6633.85	0.50	53.85	0.45	48.46	2609.47	0.46	49.54	0.35	37.69	1867.22	0.50	53.85	0.50	53.85	2889.41
19	0.70	75.38	0.55	59.23	4465.09	0.67	72.15	0.40	43.08	3108.17	0.45	48.46	0.36	38.77	1878.82	0.48	51.69	0.55	59.23	3061.77
20	0.82	88.31	0.58	62.46	5515.83	0.65	70.00	0.45	48.46	3392.31	0.44	47.38	0.38	40.92	1939.12	0.50	53.85	0.25	26.92	1449.70
21	0.95	102.31	0.52	56.00	5729.23	0.58	62.46	0.50	53.85	3363.31	0.44	47.38	0.35	37.69	1786.04	0.45	48.46	0.30	32.31	1565.68
22	0.75	80.77	0.45	48.46	3914.20	0.82	88.31	0.50	53.85	4755.03	0.42	45.23	0.38	40.92	1850.98	0.55	59.23	0.60	64.62	3827.22
23	1.00	107.69	0.50	53.85	5798.82	0.62	66.77	0.40	43.08	2876.21	0.40	43.08	0.35	37.69	1623.67	0.50	53.85	0.40	43.08	2319.53
24	0.76	81.85	0.50	53.85	4407.10	0.70	75.38	0.45	48.46	3653.25	0.45	48.46	0.35	37.69	1826.63	0.50	53.85	0.40	43.08	2319.53
25	0.92	99.08	0.55	59.23	5868.40	0.68	73.23	0.50	53.85	3943.19	0.48	51.69	0.35	37.69	1948.40	0.40	43.08	0.25	26.92	1159.76
Suma	2301.38		1294.46	119248.01		1705.85		1184.62	81195.02	11.53	1241.69	9.30	1001.54	49836.18		1392.46		859.38	47509.70	
Promedio	92.06		51.78	4769.92		68.23		47.38	3272.38	0.46	49.67	0.37	40.06	1992.25		55.70		34.38	1900.39	
D.E. (σ)	15.51		6.54	989.85		8.36		5.75	631.54	0.03	3.00	0.02	2.47	215.54		7.14		11.76	655.69	

Promedio del área de las células del haz: 4769.92 micras cuadradas 209.65 células/mm cuadrados
 Promedio del área de las células del envés: 3247.80 micras cuadradas 307.90 células/mm cuadrados
 El promedio del largo de las células del haz es 1.47 veces el promedio de las células del envés.
 El promedio del largo de las células guardia es 1.24 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es 1.62 veces el promedio del ancho.

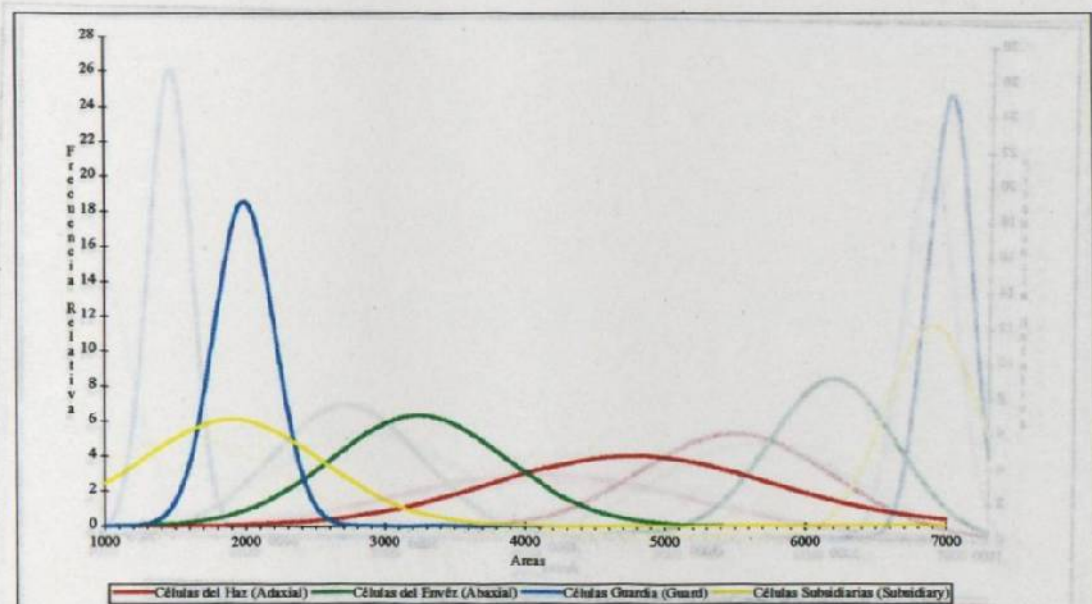


Fig. 3. Curvas normales estándar del ejemplar C03 *S. insignis*.

Cuadro 4. Datos estadísticos de C04 S. *hernandezii*.

C04 S. *hernandezii* (Méx) Pf#290995-3 Guatemala y México (I)

#	Células del Haz (Adaxial Cells)			Células del Envés (Abaxial Cells)			Células Guardia (Guard Cells)			Células Subsidiarias (Subsidiary Cells)										
	Largo (Lh)	Ancho (Ah)	Area	Largo (Le)	Ancho (Ae)	Area	Largo (Lg)	Ancho (Ag)	Area	Largo (Ls)	Ancho (As)	Area								
	Indice μ_m	Indice μ_m	μ_m	Indice μ_m	Indice μ_m	μ_m	Indice μ_m	Indice μ_m	μ_m	Indice μ_m	Indice μ_m	μ_m								
1	0.50	53.85	0.60	64.62	3479.29	0.62	66.77	0.25	26.92	1797.63	0.38	40.92	0.30	32.31	1322.13	0.48	51.69	0.30	32.31	1670.06
2	0.62	66.77	0.52	56.00	3739.08	0.68	73.23	0.45	48.46	3548.88	0.38	40.92	0.32	34.46	1410.27	0.50	53.85	0.30	32.31	1739.64
3	0.70	75.38	0.28	30.15	2273.14	0.60	64.62	0.25	26.92	1739.64	0.48	51.69	0.28	30.15	1558.72	0.48	51.69	0.30	32.31	1670.06
4	0.55	59.23	0.40	43.08	2551.48	0.62	66.77	0.32	34.46	2300.97	0.48	51.69	0.30	32.31	1670.06	0.50	53.85	0.30	32.31	1739.64
5	0.45	48.46	0.40	43.08	2087.57	0.60	64.62	0.28	30.15	1948.40	0.35	37.69	0.25	26.92	1014.79	0.40	43.08	0.30	32.31	1391.72
6	0.50	53.85	0.40	43.08	2319.53	0.90	64.62	0.30	32.31	2087.57	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.20	21.54	927.81
7	0.70	75.38	0.40	43.08	3247.34	0.50	53.85	0.35	37.69	2029.59	0.35	37.69	0.30	32.31	1217.75	0.45	48.46	0.30	32.31	1565.68
8	0.60	64.62	0.45	48.46	3131.36	0.85	91.54	0.25	26.92	2464.50	0.35	37.69	0.28	30.15	1136.57	0.45	48.46	0.25	26.92	1304.73
9	0.42	45.23	0.42	45.23	2045.82	0.50	53.85	0.30	32.31	1739.64	0.40	43.08	0.25	26.92	1159.76	0.40	43.08	0.20	21.54	927.81
10	0.45	48.46	0.40	43.08	2087.57	0.48	51.69	0.30	32.31	1670.06	0.35	37.69	0.25	26.92	1014.79	0.40	43.08	0.20	21.54	927.81
11	0.45	48.46	0.35	37.69	1826.63	0.55	59.23	0.32	34.46	2041.18	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.35	37.69	1826.63
12	0.50	53.85	0.60	64.62	3479.29	0.70	75.38	0.30	32.31	2435.50	0.40	43.08	0.25	26.92	1159.76	0.42	45.23	0.25	26.92	1217.75
13	0.70	75.38	0.35	37.69	2841.42	0.75	80.77	0.25	26.92	2174.56	0.35	37.69	0.28	30.15	1136.57	0.50	53.85	0.30	32.31	1739.64
14	0.70	75.38	0.60	64.62	4871.01	0.78	84.00	0.30	32.31	2713.85	0.38	40.92	0.30	32.31	1322.13	0.38	40.92	0.30	32.31	1322.13
15	0.65	70.00	0.40	43.08	3015.38	0.35	37.69	0.35	37.69	1420.71	0.35	37.69	0.35	37.69	1420.71	0.40	43.08	0.20	21.54	927.81
16	0.62	66.77	0.40	43.08	2876.21	0.55	59.23	0.35	37.69	2232.54	0.35	37.69	0.30	32.31	1217.75	0.40	43.08	0.30	32.31	1391.72
17	0.72	77.54	0.32	34.46	2672.09	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.30	32.31	1391.72	0.35	37.69	0.25	26.92	1014.79
18	0.55	59.23	0.40	43.08	2551.48	0.50	53.85	0.32	34.46	1855.62	0.40	43.08	0.25	26.92	1159.76	0.42	45.23	0.25	26.92	1217.75
19	0.62	66.77	0.35	37.69	2516.69	0.50	53.85	0.40	43.08	2319.53	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.30	32.31	1565.68
20	0.60	64.62	0.48	51.69	3340.12	0.60	64.62	0.32	34.46	2226.75	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.30	32.31	1565.68
21	0.50	53.85	0.40	43.08	2319.53	0.45	48.46	0.35	37.69	1826.63	0.38	40.92	0.30	32.31	1322.13	0.40	43.08	0.35	37.69	1623.67
22	0.70	75.38	0.35	37.69	2841.42	0.45	48.46	0.45	48.46	2348.52	0.38	40.92	0.30	32.31	1322.13	0.45	48.46	0.40	43.08	2087.57
23	0.50	53.85	0.40	43.08	2319.53	0.55	59.23	0.30	32.31	1913.61	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.30	32.31	1391.72
24	0.55	59.23	0.50	53.85	3189.35	0.50	53.85	0.40	43.08	2319.53	0.35	37.69	0.28	30.15	1136.57	0.35	37.69	0.25	26.92	1014.79
25	0.42	45.23	0.40	43.08	1948.40	0.40	43.08	0.40	43.08	1855.62	0.38	40.92	0.28	30.15	1233.99	0.40	43.08	0.25	26.92	1159.76
Suma	1536.77		1138.31	69570.71		1516.31		878.77	52402.74	9.64	1098.15	7.22	777.54	32286.65		1150.15		759.85	34092.07	
Promedio	61.47		45.53	2782.83		60.65		35.15	2096.11	0.39	41.53	0.29	31.10	1391.67		46.01		30.15	1397.28	
D.E. (σ)	10.69		9.10	687.45		13.19		6.20	443.39	0.04	3.81	0.02	2.63	158.24		4.69		5.38	329.58	

Promedio del área de las células del haz: 2782.83 micras cuadradas
 Promedio del área de las células del envés: 2096.11 micras cuadradas
 El promedio de las células del haz es 1.33 veces el promedio de las células del envés.
 El promedio del largo de las células guardia es 1.34 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es 1.53 veces el promedio del ancho.

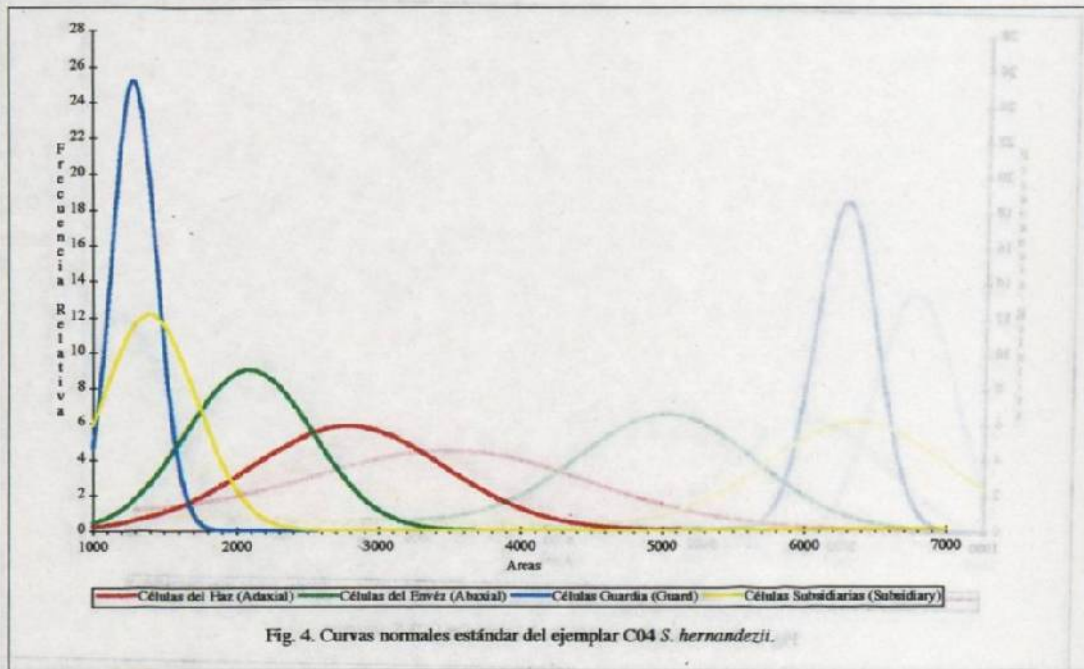


Fig. 4. Curvas normales estándar del ejemplar C04 S. *hernandezii*.

Cuadro 5. Datos estadísticos de C05 S. oculata 'Eye Doc.'

C05 S. oculata 'Eye Doc' (Pmá)P#311695-7 El Valle, Panamá (I) y todos los países al norte incl. México

#	Células del Haz (Axial Cell)					Células del Envés (Abaxial Cell)					Células Guardia (Guard Cell)					Células Subsidiarias (Subsidiary Cell)				
	Largo (Lh)		Ancho (Ah)		Área	Largo (Le)		Ancho (Ae)		Área	Largo (Lg)		Ancho (Ag)		Área	Largo (Ls)		Ancho (As)		Área
	Indice	μm	Indice	μm	μm^2	Indice	μm	Indice	μm	μm^2	Indice	μm	Indice	μm	μm^2	Indice	μm	Indice	μm	μm^2
1	0.75	80.77	0.45	48.46	3914.20	0.86	92.62	0.35	37.69	3490.89	0.39	42.00	0.31	33.38	1402.15	0.50	53.85	0.30	32.31	1739.64
2	0.65	70.00	0.40	43.08	3015.38	0.52	56.00	0.30	32.31	1809.23	0.40	43.08	0.31	33.38	1438.11	0.40	43.08	0.40	43.08	1855.62
3	0.78	84.00	0.42	45.23	3799.38	0.52	56.00	0.38	40.92	2291.69	0.38	40.92	0.30	32.31	1322.13	0.40	43.08	0.20	21.54	927.81
4	1.08	116.31	0.45	48.46	5626.45	0.80	86.15	0.42	45.23	3896.80	0.40	43.08	0.32	34.46	1484.50	0.45	48.46	0.35	37.69	1826.63
5	0.70	75.38	0.50	53.85	4059.17	0.74	79.69	0.32	34.46	2746.32	0.39	42.00	0.32	34.46	1447.38	0.40	43.08	0.15	16.15	695.86
6	0.75	80.77	0.50	53.85	4349.11	0.50	53.85	0.30	32.31	1739.64	0.39	42.00	0.31	33.38	1402.15	0.40	43.08	0.15	16.15	695.86
7	0.65	70.00	0.48	51.69	3618.46	0.70	75.38	0.36	38.77	2922.60	0.39	42.00	0.30	32.31	1356.92	0.40	43.08	0.35	37.69	1623.67
8	0.65	70.00	0.45	48.46	3392.31	0.61	65.69	0.38	40.92	2688.33	0.41	44.15	0.33	35.54	1569.16	0.40	43.08	0.40	43.08	1855.62
9	0.80	86.15	0.40	43.08	3711.24	0.60	64.62	0.40	43.08	2783.43	0.39	42.00	0.30	32.31	1356.92	0.45	48.46	0.20	21.54	1043.79
10	0.78	84.00	0.45	48.46	4070.77	0.45	48.46	0.32	34.46	1670.06	0.39	42.00	0.32	34.46	1447.38	0.40	43.08	0.35	37.69	1623.67
11	0.70	75.38	0.40	43.08	3247.34	0.80	86.15	0.36	38.77	3340.12	0.42	45.23	0.37	39.85	1802.27	0.40	43.08	0.40	43.08	1855.62
12	0.75	80.77	0.45	48.46	3914.20	0.65	70.00	0.31	33.38	2356.92	0.40	43.08	0.31	33.38	1438.11	0.40	43.08	0.35	37.69	1623.67
13	0.72	77.54	0.50	53.85	4175.15	0.55	59.23	0.42	45.23	2679.05	0.42	45.23	0.32	34.46	1558.72	0.40	43.08	0.30	32.31	1391.72
14	0.60	64.62	0.52	56.00	3618.46	0.80	86.15	0.35	37.69	3247.34	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.30	32.31	1391.72
15	0.60	64.62	0.40	43.08	2783.43	0.67	72.15	0.32	34.46	2486.53	0.43	46.31	0.37	39.85	1845.18	0.45	48.46	0.45	48.46	2348.52
16	0.70	75.38	0.45	48.46	3653.25	0.71	76.46	0.35	37.69	2882.01	0.42	45.23	0.31	33.38	1510.01	0.55	59.23	0.65	70.00	4146.15
17	0.72	77.54	0.50	53.85	4175.15	0.65	70.00	0.40	43.08	3015.38	0.41	44.15	0.31	33.38	1474.06	0.55	59.23	0.35	37.69	2232.54
18	1.10	118.46	0.40	43.08	5102.96	0.70	75.38	0.40	43.08	3247.34	0.41	44.15	0.32	34.46	1521.61	0.32	34.46	0.55	59.23	2041.18
19	0.90	96.92	0.80	86.15	8350.29	0.62	66.77	0.35	37.69	2516.69	0.39	42.00	0.30	32.31	1356.92	0.32	34.46	0.30	32.31	1113.37
20	0.75	80.77	0.50	53.85	4349.11	0.70	75.38	0.35	37.69	2841.42	0.39	42.00	0.31	33.38	1402.15	0.32	34.46	0.20	21.54	742.25
21	1.00	107.69	0.35	37.69	4059.17	0.50	53.85	0.45	48.46	2609.47	0.38	40.92	0.30	32.31	1322.13	0.35	37.69	0.20	21.54	811.83
22	0.65	70.00	0.38	40.92	2864.61	0.75	80.77	0.35	37.69	3044.38	0.42	45.23	0.28	30.15	1363.88	0.35	37.69	0.30	32.31	1217.75
23	1.00	107.69	0.35	37.69	4059.17	0.65	70.00	0.30	32.31	2261.54	0.40	43.08	0.30	32.31	1391.72	0.35	37.69	0.45	48.46	1826.63
24	0.70	75.38	0.50	53.85	4059.17	0.70	75.38	0.33	35.54	2679.05	0.39	42.00	0.32	34.46	1447.38	0.50	53.85	0.20	21.54	1159.76
25	0.88	94.77	0.50	53.85	5102.96	0.78	84.00	0.34	36.62	3075.69	0.46	49.54	0.35	37.69	1867.22	0.50	53.85	0.30	32.31	1739.64
Suma	2084.92			1238.46	103080.91		1780.15		959.54	68301.93	10.07	1084.46	7.89	849.69	36919.90		1115.69		877.69	39530.53
Promedio	83.40			49.54	4123.24		71.21		38.38	2732.08	0.40	43.38	0.32	33.99	1476.90		44.63		35.11	1381.22
D.E. (σ)	15.26			9.37	1103.11		11.86		4.43	534.93	0.02	1.95	0.02	2.26	151.79		7.09		13.02	718.36

Promedio del área de las células del haz: 4123.24 micras cuadradas 242.53 células/mm cuadradas
 Promedio del área de las células del envés: 2732.08 micras cuadradas 366.02 células/mm cuadradas
 El promedio de las células del haz es 1.51 veces el promedio de las células del envés.
 El promedio del largo de las células guardia es 1.28 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es 1.27 veces el promedio del ancho.

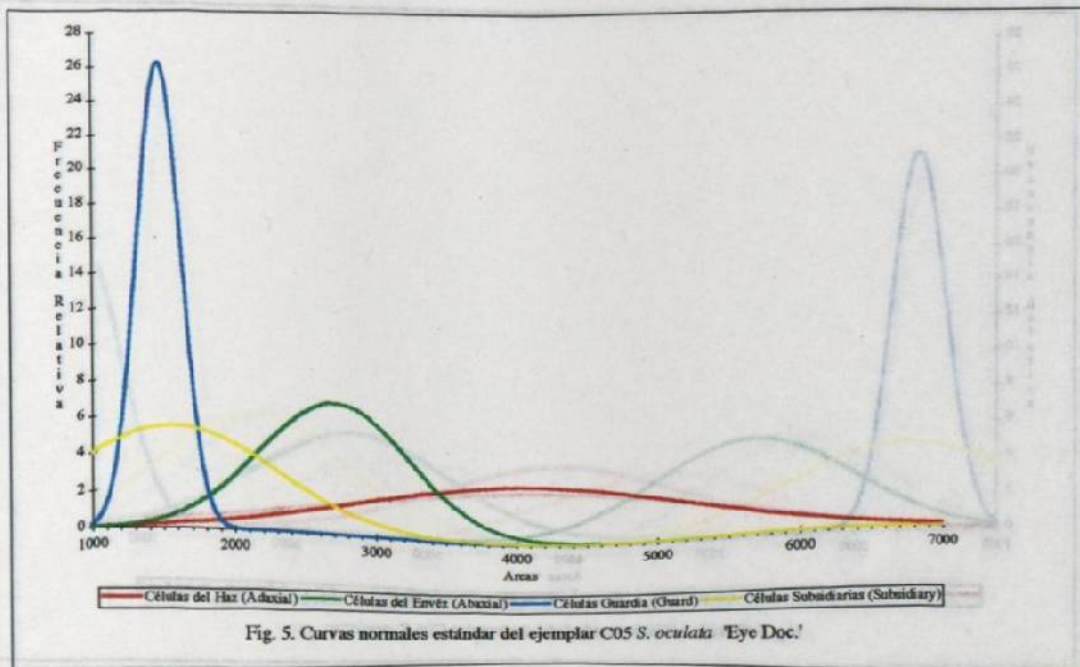


Fig. 5. Curvas normales estándar del ejemplar C05 S. oculata 'Eye Doc.'

Cuadro 6. Datos estadísticos de C06 S. oculata.

C06 S. oculata (Méx) P#290496-5 Panamá y todos los países al norte incl. México (I)

#	Células del Haz (Adaxial Cells)			Células del Envéz (Abaxial Cells)			Células Guardia (Guard Cells)			Células Subsidiarias (Subsidiary Cells)										
	Largo (Lh)	Ancho (Ah)	Área	Largo (Le)	Ancho (Ae)	Área	Largo (Lg)	Ancho (Ag)	Área	Largo (La)	Ancho (Aa)	Área								
	Indice [µm]	Indice [µm]	Indice [µm²]	Indice [µm]	Indice [µm]	Indice [µm²]	Indice [µm]	Indice [µm]	Indice [µm²]	Indice [µm]	Indice [µm]	Indice [µm²]								
1	0.70	75.38	0.60	64.62	4871.01	0.70	75.38	0.36	38.77	2922.60	0.50	53.85	0.30	32.31	1739.64	0.60	64.62	0.65	70.00	4523.08
2	0.55	59.23	0.48	51.69	3061.77	0.90	96.92	0.38	40.92	3966.39	0.42	45.23	0.30	32.31	1461.30	0.65	70.00	0.42	45.23	3166.15
3	0.51	54.92	0.50	53.85	2957.40	0.75	80.77	0.35	37.69	3044.38	0.49	52.77	0.30	32.31	1704.85	0.45	48.46	0.25	26.92	1304.73
4	0.80	86.15	0.40	43.08	3711.24	0.60	64.62	0.30	32.31	2087.57	0.49	52.77	0.30	32.31	1704.85	0.40	43.08	0.25	26.92	1159.76
5	0.60	64.62	0.44	47.38	3061.77	0.70	75.38	0.32	34.46	2597.87	0.48	51.69	0.35	37.69	1948.40	0.40	43.08	0.25	26.92	1159.76
6	0.90	96.92	0.35	37.69	3653.25	0.79	85.08	0.35	37.69	3206.75	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.40	43.08	1855.62
7	1.05	113.08	0.38	40.92	4627.45	0.55	59.23	0.45	48.46	2870.41	0.40	43.08	0.35	37.69	1623.67	0.40	43.08	0.15	16.15	695.86
8	0.90	96.92	0.40	43.08	4175.15	0.75	80.77	0.32	34.46	2783.43	0.42	45.23	0.29	31.23	1412.99	0.35	37.69	0.30	32.31	1217.75
9	0.50	53.85	0.65	70.00	3769.23	0.58	62.46	0.32	34.46	2152.32	0.48	51.69	0.30	32.31	1670.06	0.45	48.46	0.30	32.31	1565.68
10	0.65	70.00	0.55	59.23	4146.15	0.40	43.08	0.40	43.08	1855.62	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.30	32.31	1391.72
11	0.70	75.38	0.45	48.46	3653.25	0.60	64.62	0.40	43.08	2783.43	0.42	45.23	0.35	37.69	1704.85	0.40	43.08	0.25	26.92	1159.76
12	0.50	53.85	0.45	48.46	2609.47	0.45	48.46	0.35	37.69	1826.63	0.40	43.08	0.33	35.54	1530.89	0.45	48.46	0.20	21.54	1043.79
13	0.50	53.85	0.50	53.85	2899.41	0.95	102.31	0.40	43.08	4407.10	0.40	43.08	0.32	34.46	1484.50	0.45	48.46	0.40	43.08	2087.57
14	0.70	75.38	0.60	64.62	4871.01	0.85	91.54	0.30	32.31	2957.40	0.45	48.46	0.39	42.00	2033.38	0.50	53.85	0.50	53.85	2899.41
15	1.00	107.69	0.65	70.00	7538.46	0.65	70.00	0.35	37.69	2638.46	0.40	43.08	0.35	37.69	1623.67	0.50	53.85	0.20	21.54	1159.76
16	0.58	62.46	0.50	53.85	3363.31	0.40	43.08	0.32	34.46	1484.50	0.35	37.69	0.30	32.31	1217.75	0.45	48.46	0.40	43.08	2087.57
17	0.60	64.62	0.50	53.85	3479.29	0.79	85.08	0.32	34.46	2931.88	0.38	40.92	0.30	32.31	1322.13	0.50	53.85	0.30	32.31	1739.64
18	0.75	80.77	0.40	43.08	3479.29	0.80	86.15	0.35	37.69	3247.34	0.40	43.08	0.35	37.69	1623.67	0.40	43.08	0.30	32.31	1391.72
19	0.50	53.85	0.50	53.85	2899.41	0.74	79.69	0.39	42.00	3347.08	0.45	48.46	0.30	32.31	1565.68	0.50	53.85	0.25	26.92	1449.70
20	0.65	70.00	0.50	53.85	3769.23	0.70	75.38	0.42	45.23	3409.70	0.45	48.46	0.28	30.15	1461.30	0.50	53.85	0.20	21.54	1159.76
21	0.70	75.38	0.65	70.00	5276.92	0.70	75.38	0.35	37.69	2841.42	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.20	21.54	927.81
22	0.80	86.15	0.65	70.00	6090.77	0.55	59.23	0.35	37.69	2232.54	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.30	32.31	1391.72
23	0.60	64.62	0.65	70.00	4523.08	0.39	42.00	0.39	42.00	1764.00	0.40	43.08	0.32	34.46	1484.50	0.45	48.46	0.25	26.92	1304.73
24	0.70	75.38	0.65	70.00	5276.92	0.40	43.08	0.40	43.08	1855.62	0.40	43.08	0.32	34.46	1484.50	0.40	43.08	0.30	32.31	1391.72
25	0.88	94.77	0.65	70.00	6633.85	0.79	85.08	0.38	40.92	3481.61	0.40	43.08	0.32	34.46	1484.50	0.45	48.46	0.30	32.31	1565.68
Suma	1865.23		1405.38	104338.09		1774.77		971.38	68696.25	10.58	1139.38	7.92	852.92	38855.54		1211.54		820.62	40800.47	
Promedio	74.61		56.22	4175.52		70.99		38.86	2747.35	0.42	45.58	0.32	34.12	1555.22		48.46		32.82	1632.02	
D.E. (σ)	17.23		10.85	1240.10		17.51		4.20	717.38	0.04	4.24	0.03	2.83	187.90		7.29		11.71	823.79	

Promedio del área de las células del haz: 4175.52 micras cuadradas 239.61 células/mm cuadrados
 Promedio del área de las células del envéz: 2747.35 micras cuadradas 363.92 células/mm cuadrados
 El promedio de las células del haz es 1.52 veces el promedio de las células del envéz.
 El promedio del largo de las células guardia es 1.34 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es 1.48 veces el promedio del ancho.

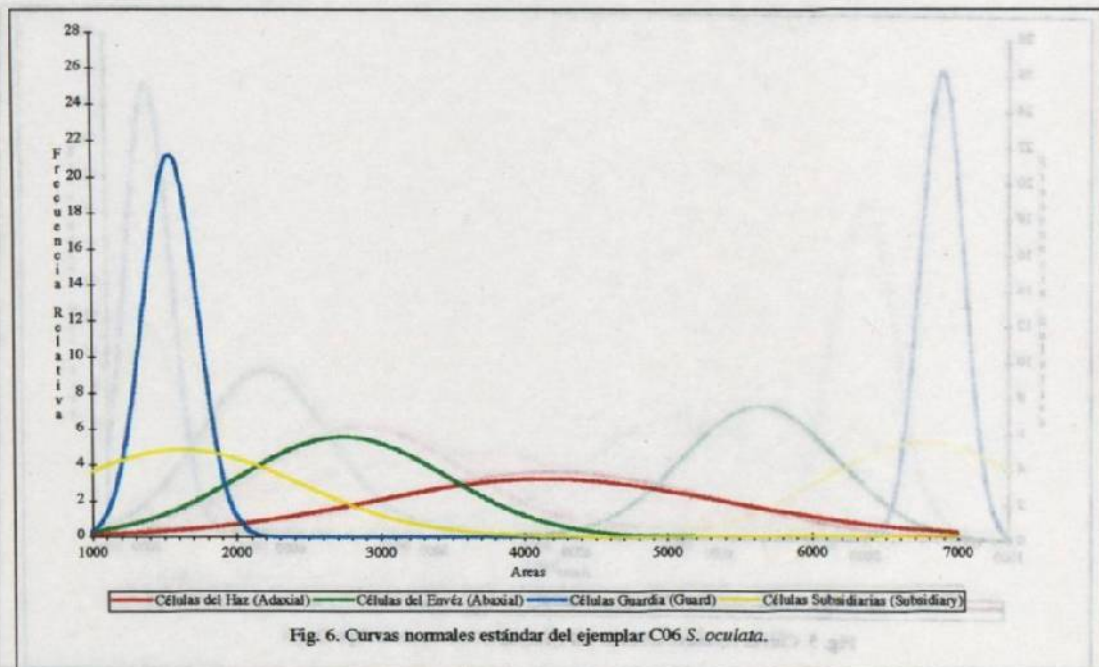


Fig. 6. Curvas normales estándar del ejemplar C06 S. oculata.

Cuadro 7. Datos estadísticos de C07 *S. tigrina*.

C07 *S. tigrina* (Méx) P1#311095-6 Colombia y todos los países al norte incl. México (I)

#	Células del Haz (Adaxial Cella)					Células del Envés (Abaxial Cella)					Células Guardia (Guard Cells)					Células Subsidiarias (Subidiary Cells)				
	Largo (Lh)		Ancho (Ah)		Área	Largo (Le)		Ancho (Ae)		Área	Largo (Lg)		Ancho (Ag)		Área	Largo (La)		Ancho (As)		Área
	Indice	$\mu\pm$	Indice	$\mu\pm$	$\mu\pm$	Indice	$\mu\pm$	Indice	$\mu\pm$	$\mu\pm$	Indice	$\mu\pm$	Indice	$\mu\pm$	$\mu\pm$	Indice	$\mu\pm$	Indice	$\mu\pm$	$\mu\pm$
1	0.64	68.92	0.60	64.62	4453.49	0.65	70.00	0.50	53.85	3769.23	0.35	37.69	0.20	21.54	811.83	0.55	59.23	0.30	32.31	1913.61
2	0.82	88.31	0.55	59.23	5230.53	0.65	70.00	0.40	43.08	3015.38	0.35	37.69	0.20	21.54	811.83	0.45	48.46	0.40	43.08	2087.57
3	0.60	64.62	0.55	59.23	3827.22	0.40	43.08	0.45	48.46	2087.57	0.30	32.31	0.25	26.92	869.82	0.42	45.23	0.40	43.08	1948.40
4	0.85	91.54	0.50	53.85	4928.99	0.55	59.23	0.45	48.46	2870.41	0.30	32.31	0.25	26.92	869.82	0.55	59.23	0.30	32.31	1913.61
5	0.92	99.08	0.55	59.23	5868.40	0.60	64.62	0.30	32.31	2087.57	0.30	32.31	0.20	21.54	695.86	0.45	48.46	0.35	37.69	1826.63
6	0.70	75.38	0.65	70.00	5276.92	0.70	75.38	0.45	48.46	3653.25	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.35	37.69	2029.59
7	0.70	75.38	0.55	59.23	4465.09	0.70	75.38	0.45	48.46	3653.25	0.30	32.31	0.20	21.54	695.86	0.55	59.23	0.30	32.31	1913.61
8	0.75	80.77	0.60	64.62	5218.93	0.80	86.15	0.40	43.08	3711.24	0.30	32.31	0.20	21.54	695.86	0.60	64.62	0.30	32.31	2087.57
9	0.70	75.38	0.50	53.85	4059.17	0.55	59.23	0.40	43.08	2551.48	0.25	26.92	0.20	21.54	579.88	0.70	75.38	0.45	48.46	3653.25
10	0.60	64.62	0.50	53.85	3479.29	0.60	64.62	0.40	43.08	2783.43	0.30	32.31	0.25	26.92	869.82	0.50	53.85	0.40	43.08	2319.53
11	0.50	53.85	0.72	77.54	4175.15	0.60	64.62	0.50	53.85	3479.29	0.30	32.31	0.30	32.31	1043.79	0.50	53.85	0.32	34.46	1855.62
12	0.50	53.85	0.70	75.38	4059.17	0.60	64.62	0.35	37.69	2433.90	0.30	32.31	0.20	21.54	695.86	0.50	53.85	0.45	48.46	2609.47
13	0.75	80.77	0.60	64.62	5218.93	0.40	43.08	0.45	48.46	2087.57	0.35	37.69	0.30	32.31	1217.75	0.45	48.46	0.35	37.69	1826.63
14	0.80	86.15	0.45	48.46	4175.15	0.55	59.23	0.45	48.46	2870.41	0.35	37.69	0.20	21.54	811.83	0.50	53.85	0.35	37.69	2029.59
15	0.65	70.00	0.45	48.46	3392.31	0.70	75.38	0.40	43.08	3247.34	0.30	32.31	0.25	26.92	869.82	0.55	59.23	0.20	21.54	1775.74
16	0.70	75.38	0.55	59.23	4465.09	0.80	86.15	0.40	43.08	3711.24	0.40	43.08	0.20	21.54	927.81	0.60	64.62	0.25	26.92	1739.64
17	0.65	70.00	0.45	48.46	3392.31	0.50	53.85	0.40	43.08	2319.53	0.40	43.08	0.25	26.92	1159.76	0.60	64.62	0.30	32.31	2087.57
18	0.70	75.38	0.50	53.85	4059.17	0.60	64.62	0.50	53.85	3479.29	0.35	37.69	0.28	30.15	1136.57	0.55	59.23	0.35	37.69	2232.54
19	0.75	80.77	0.50	53.85	4349.11	0.85	91.54	0.40	43.08	3943.19	0.30	32.31	0.20	21.54	695.86	0.50	53.85	0.40	43.08	2319.53
20	0.50	53.85	0.45	48.46	2609.47	0.80	86.15	0.35	37.69	3247.34	0.20	21.54	0.20	21.54	463.91	0.70	75.38	0.50	53.85	4059.17
21	0.60	64.62	0.45	48.46	3131.36	0.65	70.00	0.35	37.69	2638.46	0.40	43.08	0.25	26.92	1159.76	0.50	53.85	0.40	43.08	2319.53
22	0.70	75.38	0.55	59.23	4465.09	0.40	43.08	0.50	53.85	2319.53	0.40	43.08	0.30	32.31	1391.72	0.55	59.23	0.35	37.69	2232.54
23	0.75	80.77	0.65	70.00	5653.85	0.40	43.08	0.35	37.69	1623.67	0.35	37.69	0.20	21.54	811.83	0.60	64.62	0.35	37.69	2485.50
24	0.60	64.62	0.45	48.46	3131.36	0.45	48.46	0.35	37.69	1826.63	0.50	53.85	0.25	26.92	1449.70	0.30	32.31	0.30	32.31	1043.79
25	0.65	70.00	0.45	48.46	3392.31	0.35	37.69	0.50	53.85	2029.59	0.30	32.31	0.25	26.92	869.82	0.40	43.08	0.30	32.31	1391.72
Suma	1839.38		1450.62	106477.85		1599.23		1125.38	71441.41	8.35	899.23	5.88	633.23	22998.10		1407.54		939.08	53151.95	
Promedio	73.58		58.02	4259.11		63.97		45.02	2857.66	0.33	35.97	0.24	25.33	919.92		56.30		37.56	2126.08	
D.E. (σ)	11.41		8.75	852.13		15.26		6.19	700.88	0.06	6.54	0.04	4.14	260.27		9.48		7.15	631.11	

Promedio del área de las células del haz: 4259.11 micras cuadradas 254.79 células/mm cuadrados
 Promedio del área de las células del envés: 2857.66 micras cuadradas 349.94 células/mm cuadrados
 El promedio de las células del haz es: 1.49 veces el promedio de las células del envés.
 El promedio del largo de las células guardia es 1.42 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es 1.50 veces el promedio del ancho.

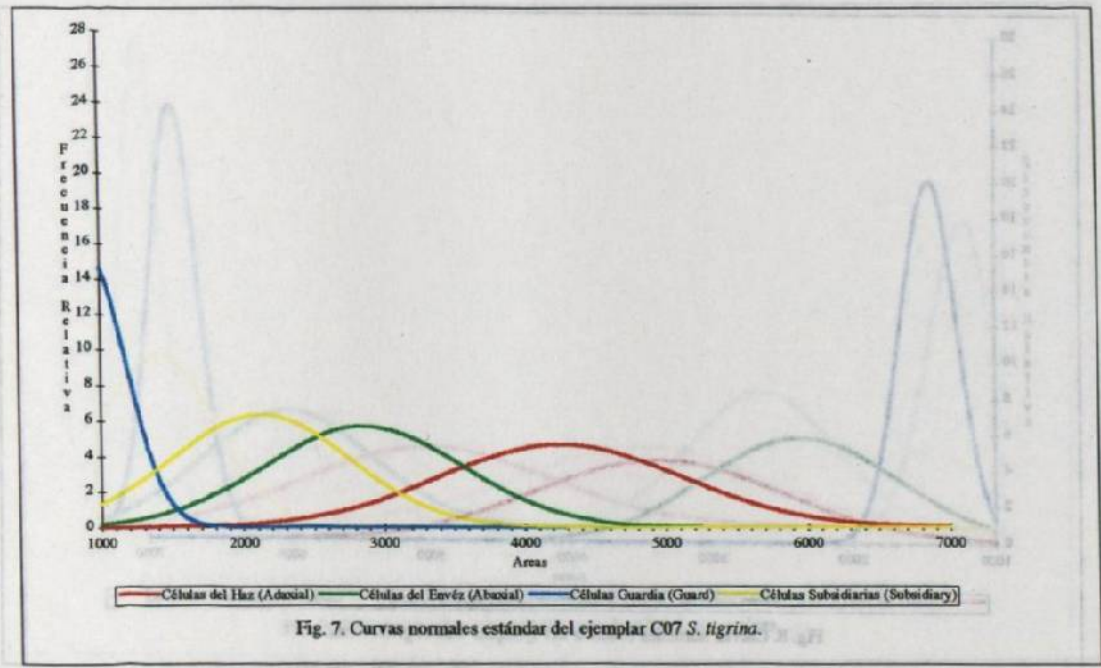


Fig. 7. Curvas normales estándar del ejemplar C07 *S. tigrina*.

Cuadro 8. Datos estadísticos de C08.S. graveolens.

C08 S. graveolens (Méx) P#311095-5 Honduras y todos los países al norte incl. México (1)

#	Células del Haz (Adaxial Cells)					Células del Envéz (Abaxial Cells)					Células Guardia (Guard Cells)					Células Subsidiarias (Subidiary Cells)				
	Largo (Lh)		Ancho (Ah)		Área	Largo (Le)		Ancho (Ae)		Área	Largo (Lg)		Ancho (Ag)		Área	Largo (Ls)		Ancho (As)		Área
	Indice	μ_m	Indice	μ_m	μ_m	Indice	μ_m	Indice	μ_m	μ_m	Indice	μ_m	Indice	μ_m	μ_m	Indice	μ_m	Indice	μ_m	μ_m
1	0.64	68.92	0.50	53.85	3711.24	0.45	48.46	0.60	64.62	3131.36	0.43	46.31	0.30	32.31	1496.09	5.00	538.46	0.40	43.08	23195.26
2	0.71	76.46	0.68	73.23	5999.34	0.30	32.31	0.55	59.23	1913.61	0.42	45.23	0.35	37.69	1704.85	0.50	53.85	0.30	32.31	1739.64
3	0.55	59.23	0.40	43.08	2351.48	0.40	43.08	0.45	48.46	2087.37	0.42	45.23	0.30	32.31	1461.30	0.50	53.85	0.30	32.31	1739.64
4	0.40	43.08	0.50	53.85	2319.53	0.40	43.08	0.50	53.85	2319.53	0.41	44.15	0.30	32.31	1426.51	0.55	59.23	0.30	32.31	1913.61
5	0.54	58.15	0.48	51.69	3006.11	0.40	43.08	0.55	59.23	2551.48	0.40	43.08	0.36	38.77	1670.06	0.35	37.69	0.40	43.08	1623.67
6	0.49	52.77	0.42	45.23	2386.79	0.40	43.08	0.40	43.08	1855.62	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.28	30.15	1298.93
7	0.72	77.54	0.57	61.38	4759.67	0.45	48.46	0.45	48.46	2348.52	0.35	37.69	0.28	30.15	1136.57	0.55	59.23	0.30	32.31	1913.61
8	0.50	53.85	0.45	48.46	2609.47	0.40	43.08	0.40	43.08	1855.62	0.42	45.23	0.34	36.62	1656.14	0.50	53.85	0.30	32.31	2899.41
9	0.68	73.23	0.45	48.46	3548.88	0.50	53.85	0.55	59.23	3189.35	0.40	43.08	0.30	32.31	1391.72	0.30	32.31	0.65	70.00	2261.54
10	0.70	75.38	0.40	43.08	3247.34	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.34	36.62	1577.28	0.45	48.46	0.30	32.31	1565.68
11	0.67	72.15	0.50	53.85	3885.21	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.31	33.38	1438.11	0.50	53.85	0.25	26.92	1449.70
12	0.58	62.46	0.52	56.00	3497.85	0.50	53.85	0.45	48.46	2609.47	0.40	43.08	0.31	33.38	1438.11	0.50	53.85	0.35	37.69	2029.59
13	0.69	74.31	0.45	48.46	3601.06	0.40	43.08	0.40	43.08	1855.62	0.38	40.92	0.31	33.38	1366.20	0.75	80.77	0.45	48.46	3914.20
14	0.68	73.23	0.48	51.69	3785.47	0.45	48.46	0.45	48.46	2348.52	0.38	40.92	0.30	32.31	1322.13	0.55	59.23	0.45	48.46	2870.41
15	0.68	73.23	0.52	56.00	4100.92	0.45	48.46	0.45	48.46	2348.52	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.60	64.62	3479.29
16	0.64	68.92	0.61	65.69	4527.72	0.65	70.00	0.50	53.85	3769.23	0.40	43.08	0.35	37.69	1623.67	0.35	37.69	0.40	43.08	1623.67
17	0.53	57.08	0.49	52.77	3011.90	0.50	53.85	0.42	45.23	2435.50	0.45	48.46	0.35	37.69	1826.63	0.60	64.62	0.50	53.85	3479.29
18	0.70	75.38	0.44	47.38	3572.07	0.45	48.46	0.20	21.54	1043.79	0.36	38.77	0.31	33.38	1294.30	0.50	53.85	0.35	37.69	2029.59
19	0.70	75.38	0.46	49.54	3734.44	0.50	53.85	0.50	53.85	2899.41	0.39	42.00	0.30	32.31	1356.92	0.55	59.23	0.25	26.92	1594.67
20	0.55	59.23	0.45	48.46	2870.41	0.30	32.31	0.45	48.46	1565.68	0.40	43.08	0.31	33.38	1438.11	0.40	43.08	0.30	32.31	1391.72
21	0.40	43.08	0.42	45.23	1948.40	0.40	43.08	0.50	53.85	2319.53	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.30	32.31	1739.64
22	0.60	64.62	0.40	43.08	2783.43	0.45	48.46	0.50	53.85	2609.47	0.45	48.46	0.35	37.69	1826.63	0.50	53.85	0.20	21.54	1159.76
23	0.50	53.85	0.36	38.77	2087.57	0.60	64.62	0.45	48.46	3131.36	0.36	38.77	0.25	26.92	1043.79	0.40	43.08	0.35	37.69	1623.67
24	0.58	62.46	0.45	48.46	3026.98	0.60	64.62	0.40	43.08	2783.43	0.40	43.08	0.38	40.92	1782.84	0.35	37.69	0.30	32.31	1217.75
25	0.68	73.23	0.55	59.23	4337.51	0.68	73.23	0.45	48.46	3548.88	0.40	43.08	0.27	29.08	1252.54	0.50	53.85	0.30	32.31	1739.64
Suma		1627.23		1286.92	84510.78		1230.92		1202.92	59304.49	10.02	1079.08	7.87	847.54	36685.63		1782.31		977.85	71493.60
Promedio		65.09		51.48	3380.43		49.24		48.12	2372.18	0.40	43.16	0.31	33.90	1467.43		71.29		39.11	2859.74
D.E. (σ)		10.41		7.67	878.21		10.17		9.41	682.81	0.02	2.58	0.03	3.26	199.12		97.86		11.85	4301.08

Promedio del área de las células del haz: 3380.43 micras cuadradas 295.82 células/mm cuadrados
 Promedio del área de las células del envéz: 2372.18 micras cuadradas 421.55 células/mm cuadrados
 El promedio de las células del haz es 1.43 veces el promedio de las células del envéz.
 El promedio del largo de las células guardia es 1.27 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es 1.82 veces el promedio del ancho.

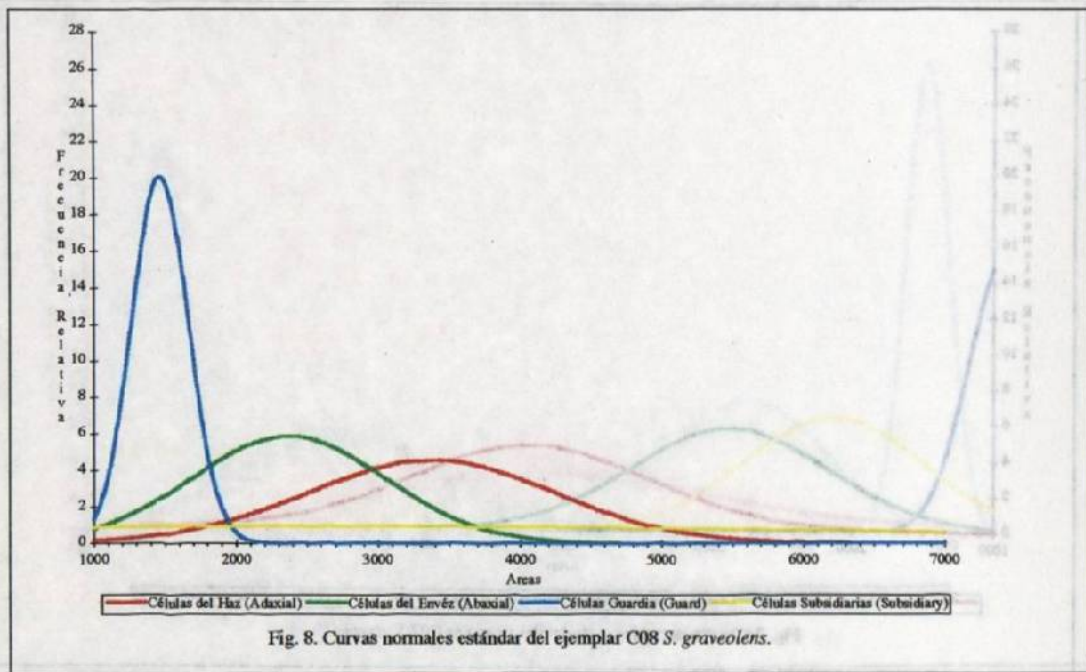


Fig. 8. Curvas normales estándar del ejemplar C08 S. graveolens.

Cuadro 9. Datos estadísticos de C09 S. graveolens.

C09 S. graveolens (Méx) Pl#290496-7 Honduras y todos los países al norte incl. México (!)

#	Células del Haz (Adaxial Cells)					Células del Envés (Abaxial Cells)					Células guardia (Guard Cells)					Células Subsidiarias (Subsidiary Cells)				
	Largo (Lh)		Ancho (Ah)		Area	Largo (Le)		Ancho (Ae)		Area	Largo (Lg)		Ancho (Ag)		Area	Largo (Ls)		Ancho (As)		Area
	Indice	μ_m	Indice	μ_m		Indice	μ_m	Indice	μ_m		Indice	μ_m	Indice	μ_m		Indice	μ_m	Indice	μ_m	
1	0.75	80.77	0.45	48.46	3914.20	0.55	59.23	0.30	32.31	1913.61	0.38	40.92	0.30	32.31	1322.13	0.55	59.23	0.20	21.54	1273.74
2	1.08	116.31	0.40	43.08	5010.18	0.30	32.31	0.30	32.31	1043.79	0.39	42.00	0.38	40.92	1718.77	0.50	53.85	0.20	21.54	1159.76
3	0.52	56.00	0.40	43.08	2412.31	0.40	43.08	0.40	43.08	1855.62	0.40	43.08	0.37	39.85	1716.45	0.30	32.31	0.40	43.08	1391.72
4	0.60	64.62	0.50	53.85	3479.29	0.30	32.31	0.35	37.69	1217.75	0.42	45.23	0.36	38.77	1753.56	0.50	53.85	0.20	21.54	1159.76
5	0.80	86.15	0.45	48.46	4175.15	0.60	64.62	0.40	43.08	2783.43	0.40	43.08	0.35	37.69	1623.67	0.60	64.62	0.20	21.54	1391.72
6	0.55	59.23	0.35	37.69	2232.54	0.57	61.38	0.45	48.46	2974.79	0.38	40.92	0.30	32.31	1322.13	0.45	48.46	0.20	21.54	1043.79
7	0.60	64.62	0.35	37.69	2435.50	0.60	64.62	0.50	53.85	3479.29	0.40	43.08	0.31	33.38	1438.11	0.30	32.31	0.30	32.31	1043.79
8	0.60	64.62	0.40	43.08	2783.43	0.50	53.85	0.50	53.85	2899.41	0.40	43.08	0.31	33.38	1438.11	0.40	43.08	0.30	32.31	1391.72
9	0.82	88.31	0.40	43.08	3804.02	0.60	64.62	0.40	43.08	2783.43	0.41	44.15	0.30	32.31	1426.51	0.55	59.23	0.25	26.92	1594.67
10	0.70	75.38	0.40	43.08	3247.34	0.50	53.85	0.40	43.08	2319.53	0.42	45.23	0.28	30.15	1363.88	0.50	53.85	0.35	37.69	2029.59
11	1.00	107.69	0.45	48.46	5218.93	0.61	65.69	0.40	43.08	2829.82	0.40	43.08	0.38	40.92	1762.84	0.40	43.08	0.35	37.69	1623.67
12	0.75	80.77	0.50	53.85	4349.11	0.45	48.46	0.52	56.00	2713.85	0.43	46.31	0.31	33.38	1545.96	0.50	53.85	0.25	26.92	1449.70
13	0.80	86.15	0.40	43.08	3711.24	0.50	53.85	0.45	48.46	2609.47	0.40	43.08	0.32	34.46	1484.50	0.50	53.85	0.25	26.92	1449.70
14	0.78	84.00	0.42	45.23	3799.38	0.50	53.85	0.40	43.08	2319.53	0.42	45.23	0.37	39.85	1802.27	0.35	37.69	0.25	26.92	1014.79
15	0.50	53.85	0.40	43.08	2319.53	0.40	43.08	0.50	53.85	2319.53	0.38	40.92	0.30	32.31	1322.13	0.45	48.46	0.45	48.46	2348.52
16	0.60	64.62	0.38	40.92	2644.26	0.65	70.00	0.35	37.69	2638.46	0.35	37.69	0.30	32.31	1217.75	0.45	48.46	0.50	53.85	2609.47
17	0.80	86.15	0.38	40.92	3525.68	0.55	59.23	0.35	37.69	2232.54	0.41	44.15	0.31	33.38	1474.06	0.45	48.46	0.25	26.92	1304.73
18	0.50	53.85	0.45	48.46	2609.47	0.60	64.62	0.35	37.69	2435.50	0.40	43.08	0.37	39.85	1716.45	0.35	37.69	0.40	43.08	1623.67
19	0.50	53.85	0.35	37.69	2029.59	0.30	32.31	0.40	43.08	1391.72	0.37	39.85	0.31	33.38	1330.25	0.40	43.08	0.25	26.92	1159.76
20	0.90	96.92	0.40	43.08	4175.15	0.65	70.00	0.30	32.31	2261.54	0.40	43.08	0.35	37.69	1623.67	0.50	53.85	0.20	21.54	1159.76
21	0.65	70.00	0.40	43.08	3015.38	0.55	59.23	0.36	38.77	2296.33	0.42	45.23	0.29	31.23	1412.59	0.45	48.46	0.20	21.54	1043.79
22	0.50	53.85	0.40	43.08	2319.53	0.35	37.69	0.40	43.08	1623.67	0.45	48.46	0.35	32.31	1565.79	0.50	53.85	0.25	26.92	1449.70
23	0.48	51.69	0.48	51.69	2672.09	0.32	34.46	0.40	43.08	1484.50	0.40	43.08	0.32	34.46	1484.50	0.40	43.08	0.20	21.54	927.81
24	0.70	75.38	0.38	40.92	3084.97	0.52	56.00	0.45	48.46	2713.85	0.40	43.08	0.31	33.38	1438.11	0.50	53.85	0.20	21.54	1159.76
25	0.70	75.38	0.40	43.08	3247.34	0.56	60.31	0.40	43.08	2397.87	0.41	44.15	0.35	37.69	1664.26	0.30	32.31	0.35	37.69	1217.75
Suma	1850.15		1108.15	82215.61		1338.62		1080.15	57738.81	10.04	1081.23	8.20	877.69	37968.44		1200.77		748.46	35024.85	
Promedio	74.01		44.33	3288.62		53.54		43.21	2309.55	0.40	43.25	0.33	35.11	1516.74		48.03		29.94	1400.99	
D.E. (σ)	17.47		4.51	872.76		12.25		6.72	600.76	0.02	2.19	0.03	3.38	166.98		8.78		9.47	408.39	

Promedio del área de las células del haz: 3288.62 micras cuadradas = 304.08 células/mm cuadrados
 Promedio del área de las células del envés: 2309.55 micras cuadradas = 432.98 células/mm cuadrados
 El promedio de las células del haz es 1.42 veces el promedio de las células del envés.
 El promedio del largo de las células guardia es 1.23 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es 1.60 veces el promedio del ancho.

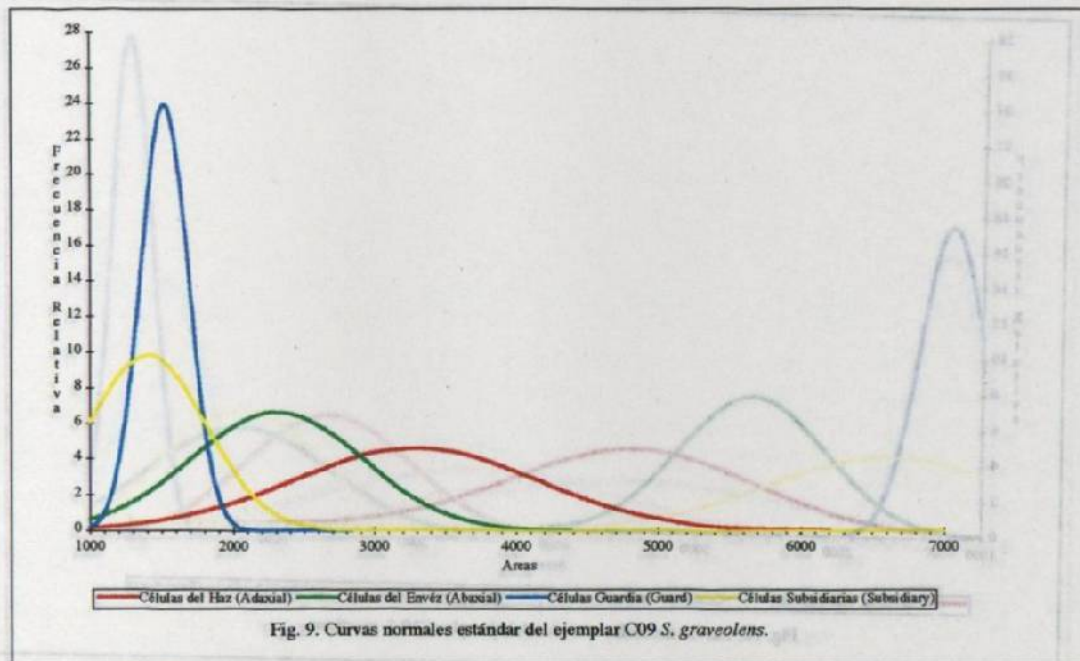


Fig. 9. Curvas normales estándar del ejemplar C09 S. graveolens.

Cuadro 10. Datos estadísticos de C10. *S. martiana*.

C10. *S. martiana* (Méx) P1090995-2 México (1)

#	Células del Haz (Adaxial Cells)			Células del Envés (Abaxial Cells)			Células Guardia (Guard Cells)			Células Subsidiarias (Subsidiary Cells)										
	Largo (Lh)	Ancho (Ah)	Área	Largo (Le)	Ancho (Ae)	Área	Largo (Lg)	Ancho (Ag)	Área	Largo (Ls)	Ancho (As)	Área								
	Indice	Indice	Indice	Indice	Indice	Indice	Indice	Indice	Indice	Indice	Indice	Indice								
1	0.95	102.31	0.49	52.77	5398.70	0.55	59.23	0.38	40.92	2423.90	0.35	37.69	0.30	32.31	1217.75	0.52	56.00	0.40	43.08	2412.31
2	0.58	62.46	0.46	49.54	3094.25	0.45	48.46	0.40	43.08	2087.57	0.42	45.23	0.25	26.92	1217.75	0.42	45.23	0.42	45.23	2045.82
3	0.59	63.54	0.35	37.69	2394.91	0.48	51.69	0.34	36.62	1892.73	0.35	37.69	0.30	32.31	1217.75	0.50	53.85	0.45	48.46	2609.47
4	0.64	68.92	0.48	51.69	3562.79	0.56	60.31	0.42	45.23	2727.76	0.40	43.08	0.25	26.92	1159.76	0.60	64.62	0.58	62.46	4055.98
5	0.49	52.77	0.41	44.15	2329.96	0.52	56.00	0.38	40.92	2291.69	0.35	37.69	0.25	26.92	1014.79	0.65	70.00	0.35	37.69	2638.46
6	0.89	95.85	0.46	49.54	4748.07	0.65	70.00	0.35	37.69	2638.46	0.40	43.08	0.25	26.92	1159.76	0.55	59.23	0.30	32.31	1913.61
7	0.70	75.38	0.48	51.69	3896.80	0.64	68.92	0.40	43.08	2968.99	0.40	43.08	0.25	26.92	1159.76	0.40	43.08	0.35	37.69	1623.67
8	0.60	64.62	0.40	43.08	2783.43	0.56	60.31	0.42	45.23	2727.76	0.45	48.46	0.30	32.31	1565.68	0.30	32.31	0.40	43.08	1391.72
9	0.63	67.85	0.50	53.85	3653.25	0.40	43.08	0.40	43.08	1855.62	0.38	40.92	0.25	26.92	1101.77	0.50	53.85	0.40	43.08	2319.53
10	0.58	62.46	0.35	37.69	2354.32	0.58	62.46	0.42	45.23	2825.18	0.40	43.08	0.35	37.69	1623.67	0.40	43.08	0.60	64.62	2783.43
11	0.77	82.92	0.42	45.23	3750.67	0.50	53.85	0.40	43.08	2319.53	0.35	37.69	0.30	32.31	1217.75	0.58	62.46	0.38	40.92	2556.12
12	0.58	62.46	0.39	42.00	2623.38	0.71	76.46	0.40	43.08	3293.73	0.40	43.08	0.25	26.92	1159.76	0.50	53.85	0.38	40.92	2203.55
13	0.67	72.15	0.35	37.69	2719.64	0.52	56.00	0.40	43.08	2412.31	0.35	37.69	0.30	32.31	1217.75	0.40	43.08	0.35	37.69	1623.67
14	0.59	63.54	0.52	56.00	3558.15	0.85	91.54	0.35	37.69	3450.30	0.42	45.23	0.30	32.31	1461.30	0.35	37.69	0.20	21.54	811.83
15	0.60	64.62	0.35	37.69	2435.50	0.50	53.85	0.40	43.08	2319.53	0.40	43.08	0.20	21.54	927.81	0.40	43.08	0.25	26.92	1159.76
16	0.80	86.15	0.42	45.23	3896.80	0.35	37.69	0.41	44.15	1664.26	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.20	21.54	927.81
17	0.70	75.38	0.43	46.31	3490.89	0.60	64.62	0.35	37.69	2435.50	0.45	48.46	0.35	37.69	1826.63	0.35	37.69	0.25	26.92	1014.79
18	0.60	64.62	0.40	43.08	2783.43	0.50	53.85	0.35	37.69	2029.59	0.35	37.69	0.30	32.31	1217.75	0.35	37.69	0.30	32.31	1217.75
19	0.81	87.23	0.52	56.00	4884.92	0.65	70.00	0.30	32.31	2261.54	0.38	40.92	0.20	21.54	881.42	0.30	32.31	0.15	16.15	521.89
20	0.72	77.54	0.50	53.85	4175.15	0.59	63.54	0.40	43.08	2737.04	0.40	43.08	0.20	21.54	927.81	0.30	32.31	0.15	16.15	521.89
21	0.69	74.31	0.42	45.23	3360.99	0.70	75.38	0.40	43.08	3247.34	0.40	43.08	0.25	26.92	1159.76	0.35	37.69	0.25	26.92	1014.79
22	0.60	64.62	0.43	46.31	2992.19	0.65	70.00	0.45	48.46	3392.31	0.35	37.69	0.25	26.92	1014.79	0.40	43.08	0.20	21.54	927.81
23	0.80	86.15	0.52	56.00	4824.61	0.78	84.00	0.38	40.92	3437.54	0.35	37.69	0.30	32.31	1217.75	0.30	32.31	0.20	21.54	695.86
24	0.64	68.92	0.46	49.54	3414.34	0.55	59.23	0.44	47.38	2806.63	0.40	43.08	0.20	21.54	927.81	0.35	37.69	0.25	26.92	1014.79
25	0.64	68.92	0.40	43.08	2968.99	0.64	68.92	0.40	43.08	2968.99	0.40	43.08	0.30	32.31	1391.72	0.30	32.31	0.20	21.54	695.86
Suma	1815.69			1174.92	86096.18		1559.38		1048.92	63215.80	9.70	1044.62	6.75	726.92	30380.00		1127.54		837.23	40682.17
Promedio	72.63			47.00	3443.46		62.38		41.96	2532.35	0.39	41.78	0.27	29.08	1215.20		45.10		34.29	1627.29
D.E. (σ)	11.79			6.02	861.02		12.20		3.65	514.27	0.03	3.33	0.04	4.66	228.60		11.12		13.04	891.22

Promedio del área de las células del haz: 3443.85

micras cuadradas 290.37 células/mm cuadradas

Promedio del área de las células del envés: 2608.65

micras cuadradas 383.34 células/mm cuadradas

El promedio de las células del haz es

1.32 veces el promedio de las células del envés.

El promedio de las células guardia es

1.44 veces el promedio del ancho.

El promedio del largo de las células subsidiarias es

1.32 veces el promedio del ancho.

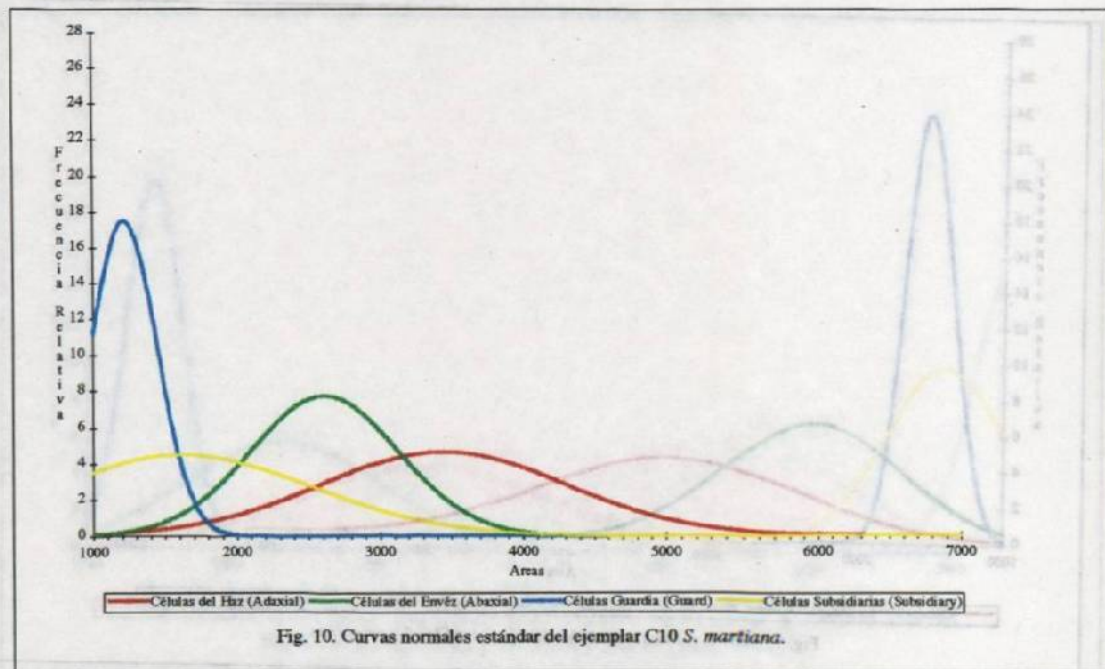


Fig. 10. Curvas normales estándar del ejemplar C10 *S. martiana*.

Cuadro 11. Datos estadísticos de C11 *S. intermedia*.

C11 *S. intermedia* (Méx) PI#090955-1 México (I)

#	Células del Haz (Axial Cells)					Células del Envés (Abaxial Cells)					Células Guardia (Guard Cells)					Células Subsidiarias (Subsidiary Cells)				
	Largo (Lh)		Ancho (Ah)		Area [μm^2]	Largo (Le)		Ancho (Ae)		Area [μm^2]	Largo (Lg)		Ancho (Ag)		Area [μm^2]	Largo (Ls)		Ancho (As)		Area [μm^2]
	Indice	[μm]	Indice	[μm]		Indice	[μm]	Indice	[μm]		Indice	[μm]	Indice	[μm]		Indice	[μm]	Indice	[μm]	
1	0.58	62.46	0.35	37.69	2354.32	0.35	37.69	0.50	53.85	2029.59	0.40	43.08	0.25	26.92	1159.76	0.30	32.31	0.35	37.69	1217.75
2	0.70	75.38	0.35	37.69	2841.42	0.35	37.69	0.50	53.85	2029.59	0.40	43.08	0.28	30.15	1298.93	0.50	53.85	0.35	37.69	2029.59
3	0.65	70.00	0.40	43.08	3015.38	0.50	53.85	0.50	53.85	2899.41	0.42	45.23	0.28	30.15	1363.88	0.50	53.85	0.30	32.31	1739.64
4	0.68	73.23	0.48	51.69	3785.47	0.50	53.85	0.50	53.85	2899.41	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.55	59.23	3189.35
5	0.55	59.23	0.45	48.46	2870.41	0.30	32.31	0.45	48.46	1565.68	0.40	43.08	0.25	26.92	1159.76	0.30	32.31	0.35	37.69	1217.75
6	0.50	53.85	0.45	48.46	2609.47	0.30	32.31	0.55	59.23	1913.61	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.30	32.31	1739.64
7	0.50	53.85	0.42	45.23	2435.50	0.30	32.31	0.50	53.85	1739.64	0.42	45.23	0.30	32.31	1461.30	0.40	43.08	0.40	43.08	1855.62
8	0.75	80.77	0.45	48.46	3914.20	0.40	43.08	0.50	53.85	2319.53	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.45	48.46	2087.57
9	0.45	48.46	0.38	40.92	1983.19	0.38	40.92	0.50	53.85	2203.55	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.60	64.62	3131.36
10	0.40	43.08	0.40	43.08	1855.62	0.32	34.46	0.50	53.85	1855.62	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.45	48.46	2348.52
11	0.50	53.85	0.40	43.08	2319.53	0.55	59.23	0.55	59.23	3508.28	0.40	43.08	0.32	34.46	1484.50	0.50	53.85	0.35	37.69	2029.59
12	0.45	48.46	0.40	43.08	2087.57	0.30	32.31	0.50	53.85	1739.64	0.40	43.08	0.28	30.15	1298.93	0.45	48.46	0.50	53.85	2609.47
13	0.75	80.77	0.35	37.69	3044.38	0.50	53.85	0.40	43.08	2319.53	0.40	43.08	0.28	30.15	1298.93	0.40	43.08	0.35	37.69	1623.67
14	0.57	61.38	0.29	31.23	1917.09	0.32	34.46	0.50	53.85	1855.62	0.42	45.23	0.25	26.92	1217.75	0.45	48.46	0.25	26.92	1304.73
15	0.45	48.46	0.62	66.77	3235.74	0.55	59.23	0.35	37.69	2232.54	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.50	53.85	2609.47
16	0.45	48.46	0.60	64.62	3131.36	0.35	37.69	0.35	37.69	1420.71	0.32	34.46	0.30	32.31	1113.57	0.45	48.46	0.30	32.31	1565.68
17	0.50	53.85	0.40	43.08	2319.53	0.60	64.62	0.42	45.23	2922.60	0.40	43.08	0.25	26.92	1159.76	0.50	53.85	0.35	37.69	2029.59
18	0.52	56.00	0.50	53.85	3015.38	0.38	40.92	0.30	32.31	1822.13	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.30	32.31	1739.64
19	0.52	56.00	0.45	48.46	2713.85	0.35	37.69	0.35	37.69	1420.71	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.45	48.46	2609.47
20	0.68	73.23	0.35	37.69	2760.24	0.30	32.31	0.45	48.46	1565.68	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.35	37.69	2029.59
21	0.50	53.85	0.35	37.69	2029.59	0.65	70.00	0.30	32.31	2261.54	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.35	37.69	2029.59
22	0.45	48.46	0.38	40.92	1983.19	0.60	64.62	0.30	32.31	2087.57	0.30	32.31	0.25	26.92	869.82	0.50	53.85	0.40	43.08	2319.53
23	0.60	64.62	0.45	48.46	3131.36	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.28	30.15	1298.93	0.40	43.08	0.50	53.85	2319.53
24	0.63	67.85	0.49	52.77	3580.19	0.31	33.38	0.21	22.62	733.01	0.45	48.46	0.25	26.92	1304.73	0.45	48.46	0.60	64.62	3131.36
25	0.45	48.46	0.45	48.46	2348.52	0.70	75.38	0.40	43.08	3247.34	0.45	48.46	0.30	32.31	1565.68	0.35	37.69	0.40	43.08	1623.67
Suma	1484.00		1142.62	67282.50		1137.23		1150.15	51506.24	9.98	1074.77	7.12	766.77	32973.23		1206.15		1082.31	52131.35	
Promedio	59.36		45.70	2691.30		45.49		46.01	2066.25	0.40	42.99	0.28	30.67	1313.93		48.25		43.29	2085.25	
D.E. (σ)	11.06		8.19	586.08		13.48		10.20	651.90	0.03	3.30	0.02	2.37	143.69		6.68		10.37	564.51	

Promedio del área de las células del haz: 2691.30 micras cuadradas 371.57 células/mm cuadradas
 Promedio del área de las células del envés: 2066.25 micras cuadradas 485.38 células/mm cuadradas
 El promedio de las células del haz es 1.31 veces el promedio de las células del envés.
 El promedio del largo de las células guardia es 1.40 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es 1.11 veces el promedio del ancho.

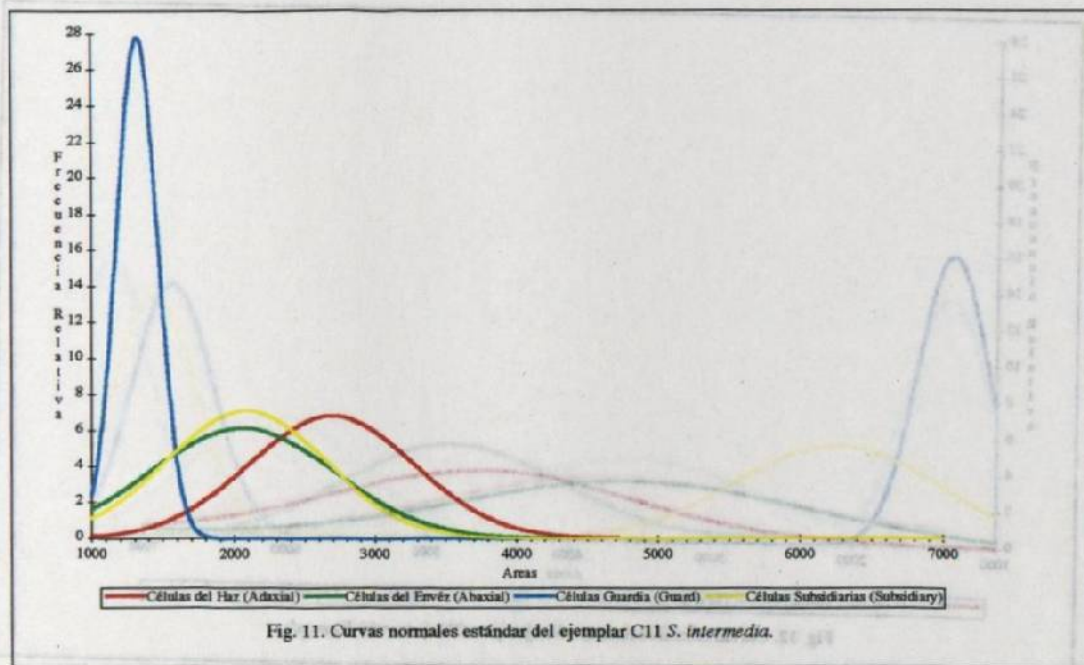


Fig. 11. Curvas normales estándar del ejemplar C11 *S. intermedia*.

Cuadro 12. Datos estadísticos de C12 *S. wardii* 'Dozen'

C12 *S. wardii* Dozen (Otnl) P#311095-2 Colombia, Venezuela y todos los países al norte incl. Guatemala (1), pero no en México

#	Células del Haz (Adaxial Cells)				Células del Envés (Abaxial Cells)				Células Guardia (Guard Cells)				Células Subsidiarias (Subsidiary Cells)							
	Largo (Lh)		Ancho (Ah)		Largo (Lc)		Ancho (Ac)		Largo (Lg)		Ancho (Ag)		Largo (La)		Ancho (As)					
	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m				
1	0.95	102.31	0.50	53.85	5508.87	0.80	86.15	0.60	64.62	5566.86	0.30	32.31	0.30	32.31	1043.79	0.55	59.23	0.50	53.85	3189.35
2	0.70	75.38	0.60	64.62	4871.01	0.60	64.62	0.50	53.85	3479.29	0.40	43.08	0.30	32.31	1391.72	0.65	70.00	0.50	53.85	3769.23
3	0.65	70.00	0.60	64.62	4523.08	0.80	86.15	0.55	59.23	5102.96	0.40	43.08	0.30	32.31	1391.72	0.55	59.23	0.40	43.08	2551.48
4	0.85	91.54	0.55	59.23	5421.89	0.90	96.92	0.55	59.23	5740.83	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.40	43.08	1855.62
5	0.95	102.31	0.50	53.85	5508.87	0.80	86.15	0.50	53.85	4639.05	0.35	37.69	0.25	26.92	1014.79	0.45	48.46	0.40	43.08	2087.57
6	0.85	91.54	0.50	53.85	4928.99	0.70	75.38	0.40	43.08	3247.34	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.40	43.08	2087.57
7	0.65	70.00	0.50	53.85	3769.23	0.85	91.54	0.40	43.08	3943.19	0.45	48.46	0.35	37.69	1826.63	0.50	53.85	0.40	43.08	2319.53
8	0.55	59.23	0.60	64.62	3827.22	0.60	64.62	0.50	53.85	3479.29	0.45	48.46	0.30	32.31	1565.68	0.35	37.69	0.30	32.31	1217.75
9	0.70	75.38	0.60	64.62	4871.01	0.70	75.38	0.40	43.08	3247.34	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.30	32.31	1565.68
10	0.60	64.62	0.60	64.62	4175.15	0.70	75.38	0.35	37.69	2841.42	0.45	48.46	0.30	32.31	1565.68	0.35	37.69	0.25	26.92	1014.79
11	0.50	53.85	0.55	59.23	3189.35	0.50	53.85	0.30	32.31	1739.64	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.30	32.31	1391.72
12	0.60	64.62	0.55	59.23	3827.22	0.90	96.92	0.45	48.46	4697.04	0.45	48.46	0.25	26.92	1304.73	0.55	59.23	0.30	32.31	1913.61
13	0.60	64.62	0.55	59.23	3827.22	0.90	96.92	0.50	53.85	5218.93	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.25	26.92	1449.70
14	0.80	86.15	0.50	53.85	4639.05	0.60	64.62	0.35	37.69	2435.50	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.25	26.92	1449.70
15	0.80	86.15	0.65	70.00	6030.77	0.75	80.77	0.40	43.08	3479.29	0.35	37.69	0.30	32.31	1217.75	0.70	75.38	0.35	37.69	2841.42
16	0.60	64.62	0.60	64.62	4175.15	0.90	96.92	0.50	53.85	5218.93	0.40	43.08	0.30	32.31	1391.72	0.55	59.23	0.45	48.46	2870.41
17	0.65	70.00	0.60	64.62	4523.08	0.55	59.23	0.30	32.31	1913.61	0.45	48.46	0.30	32.31	1565.68	0.55	59.23	0.45	48.46	2870.41
18	0.85	91.54	0.66	71.08	6506.27	0.65	70.00	0.40	43.08	3015.38	0.35	37.69	0.25	26.92	1014.79	0.55	59.23	0.35	37.69	2232.54
19	0.70	75.38	0.65	70.00	5276.92	0.65	70.00	0.30	32.31	2261.54	0.35	37.69	0.25	26.92	1014.79	0.30	32.31	0.20	21.54	695.86
20	0.60	64.62	0.60	64.62	4175.15	0.60	64.62	0.35	37.69	2435.50	0.30	32.31	0.25	26.92	869.82	0.55	59.23	0.25	26.92	1594.67
21	0.50	53.85	0.50	53.85	2899.41	0.65	70.00	0.30	32.31	2261.54	0.35	37.69	0.25	26.92	1014.79	0.70	75.38	0.35	37.69	2841.42
22	0.95	102.31	0.55	59.23	6059.76	0.50	53.85	0.35	37.69	2029.59	0.40	43.08	0.35	37.69	1623.67	0.60	64.62	0.30	32.31	2087.57
23	0.90	96.92	0.56	60.31	5845.21	0.60	64.62	0.40	43.08	2783.48	0.30	32.31	0.25	26.92	869.82	0.50	53.85	0.45	48.46	2609.47
24	0.75	80.77	0.55	59.23	4784.02	0.90	96.92	0.40	43.08	4175.15	0.32	34.46	0.30	32.31	1113.57	0.60	64.62	0.30	32.31	2087.57
25	0.30	32.31	0.55	59.23	1913.61	0.80	86.15	0.40	43.08	3711.24	0.35	37.69	0.35	37.69	1420.71	0.55	59.23	0.30	32.31	1913.61
Suma	1890.00		1526.00	115077.50		1927.69		1125.58	88663.89	9.57	1030.62	7.30	786.15	32571.95		1378.46		936.92	52508.28	
Promedio	75.60		61.04	4629.19		77.11		45.02	3566.36	0.38	41.22	0.29	31.45	1262.46		55.14		37.48	2100.33	
D.E. (σ)	17.55		5.39	1071.84		14.22		9.31	1217.37	0.05	5.23	0.03	3.36	248.89		11.02		8.99	728.42	

Promedio del área de las células del haz: 4603.10 micras cuadradas 217.24 células/mm cuadrados
 Promedio del área de las células del envés: 3546.56 micras cuadradas 281.96 células/mm cuadrados
 El promedio de las células del haz es: 1.30 veces el promedio de las células del envés.
 El promedio del largo de las células guardia es: 1.31 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es: 1.47 veces el promedio del ancho.

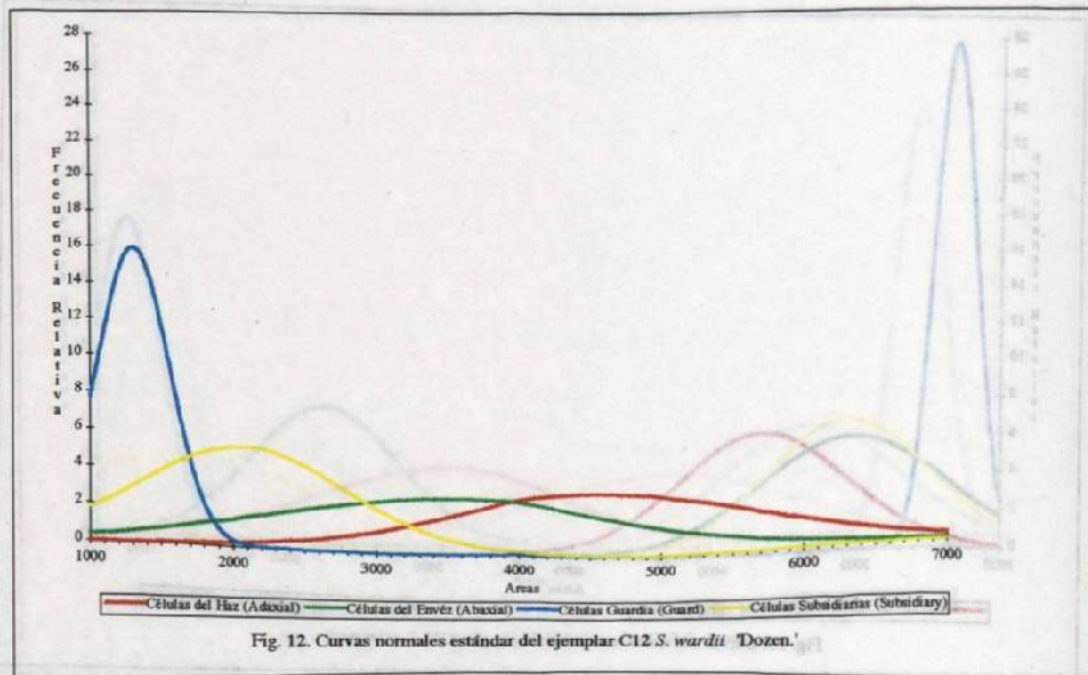


Fig. 12. Curvas normales estándar del ejemplar C12 *S. wardii* 'Dozen.'

Cuadro 13. Datos estadísticos de C13 *S. wardii*.

C13 *S. wardii* (Colf) P#251195-1 Colombia (C), Venezuela y todos los países incl. Guatemala, pero no en México

#	Células del Haz (Adaxial Cells)			Células del Envés (Abaxial Cells)			Células guardia (Guard Cells)			Células subsidiarias (Subsidiary Cells)										
	Largo (Lh)		Ancho (Ah)	Largo (Le)		Ancho (Ae)	Largo (Lg)		Ancho (Ag)	Largo (Ls)		Ancho (As)								
	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m								
1	1.00	107.69	0.55	59.23	6378.70	0.60	64.62	0.60	64.62	4175.15	0.55	59.23	0.35	37.69	2232.54	0.50	53.85	0.25	26.92	1449.70
2	0.70	75.38	0.55	59.23	4465.09	0.55	59.23	0.65	70.00	4146.15	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.25	26.92	1449.70
3	0.65	70.00	0.50	53.85	3769.23	0.60	64.62	0.60	64.62	4175.15	0.40	43.08	0.30	32.31	1391.72	0.35	37.69	0.25	26.92	1614.79
4	0.40	43.08	0.50	53.85	2319.53	0.75	80.77	0.55	59.23	4784.02	0.40	43.08	0.30	32.31	1391.72	0.35	37.69	0.20	21.54	811.83
5	0.68	73.23	0.50	53.85	3943.19	0.55	59.23	0.55	59.23	3508.28	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.30	32.31	1739.64
6	0.60	64.62	0.55	59.23	3827.22	0.50	53.85	0.55	59.23	3189.35	0.44	47.38	0.32	34.46	1632.95	0.45	48.46	0.30	32.31	1565.68
7	1.10	118.46	0.55	59.23	7016.57	0.50	53.85	0.50	53.85	2899.41	0.45	48.46	0.30	32.31	1565.68	0.45	48.46	0.25	26.92	1304.73
8	0.72	77.54	0.55	59.23	4592.66	0.70	75.38	0.60	64.62	4871.01	0.50	53.85	0.30	32.31	1739.64	0.50	53.85	0.25	26.92	1449.70
9	0.60	64.62	0.55	59.23	3827.22	0.60	64.62	0.50	53.85	3479.29	0.45	48.46	0.30	32.31	1565.68	0.50	53.85	0.25	26.92	1449.70
10	0.55	59.23	0.45	48.46	2870.41	0.68	73.23	0.50	53.85	3943.19	0.38	40.92	0.28	30.15	1233.99	0.45	48.46	0.25	26.92	1304.73
11	0.65	70.00	0.45	48.46	3392.31	0.65	70.00	0.60	64.62	4523.08	0.45	48.46	0.30	32.31	1565.68	0.45	48.46	0.25	26.92	1304.73
12	0.60	64.62	0.65	70.00	4523.08	0.70	75.38	0.50	53.85	4059.17	0.38	40.92	0.30	32.31	1322.13	0.45	48.46	0.30	32.31	1565.68
13	0.64	68.92	0.60	64.62	4453.49	0.58	62.46	0.55	59.23	3699.64	0.45	48.46	0.30	32.31	1565.68	0.45	48.46	0.30	32.31	1565.68
14	0.75	80.77	0.70	75.38	6088.76	0.45	48.46	0.50	53.85	2609.47	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.30	32.31	1739.64
15	0.70	75.38	0.70	75.38	5682.84	0.70	75.38	0.45	48.46	3653.25	0.45	48.46	0.35	37.69	1826.63	0.50	53.85	0.35	37.69	2029.59
16	0.60	64.62	0.60	64.62	4175.15	0.65	70.00	0.50	53.85	3769.23	0.45	48.46	0.30	32.31	1565.68	0.30	32.31	0.25	26.92	869.82
17	0.85	91.54	0.60	64.62	5914.79	0.70	75.38	0.55	59.23	4465.09	0.50	53.85	0.35	37.69	2029.59	0.35	37.69	0.25	26.92	1014.79
18	1.00	107.69	0.60	64.62	6958.58	0.55	59.23	0.45	48.46	2870.41	0.38	40.92	0.30	32.31	1322.13	0.40	43.08	0.35	37.69	1623.67
19	0.80	86.15	0.45	48.46	4175.15	0.50	53.85	0.40	43.08	2319.53	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.35	37.69	1623.67
20	0.70	75.38	0.60	64.62	4871.01	0.60	64.62	0.50	53.85	3479.29	0.48	51.69	0.40	43.08	2226.75	0.35	37.69	0.30	32.31	1217.75
21	0.75	80.77	0.55	59.23	4784.02	0.70	75.38	0.35	37.69	2841.42	0.32	34.46	0.30	32.31	1113.37	0.40	43.08	0.35	37.69	1623.67
22	0.60	64.62	0.55	59.23	3827.22	0.60	64.62	0.40	43.08	2783.43	0.45	48.46	0.30	32.31	1565.68	0.40	43.08	0.35	37.69	1623.67
23	0.95	102.31	0.40	43.08	4407.10	0.60	64.62	0.40	43.08	2783.43	0.45	48.46	0.35	37.69	1826.63	0.40	43.08	0.35	37.69	1623.67
24	0.55	59.23	0.55	59.23	3508.28	0.60	64.62	0.40	43.08	2783.43	0.45	48.46	0.30	32.31	1565.68	0.45	48.46	0.35	37.69	1826.63
25	0.80	86.15	0.55	59.23	5102.96	0.45	48.46	0.45	48.46	2348.52	0.40	43.08	0.30	32.31	1391.72	0.35	37.69	0.30	32.31	1217.75
Suma	1932.00		1486.15	114874.54		1621.85		1356.92	88159.40	10.78	1160.92	7.80	840.00	39208.11		1152.31		780.77	36010.65	
Promedio	77.28		59.45	4594.98		64.87		54.28	3526.38	0.43	46.44	0.31	33.60	1596.38		46.09		31.23	1440.43	
D.E. (σ)	17.54		7.85	1194.49		8.97		8.36	758.40	0.05	5.21	0.03	2.88	282.31		6.61		4.92	297.77	

Promedio del área de las células del haz: 4594.98 micras cuadradas
 Promedio del área de las células del envés: 3526.38 micras cuadradas
 El promedio de las células del haz es 1.30 veces el promedio de las células del envés.
 El promedio del largo de las células guardia es 1.38 veces el promedio del ancho.
 El promedio del largo de las células subsidiarias es 1.48 veces el promedio del ancho.

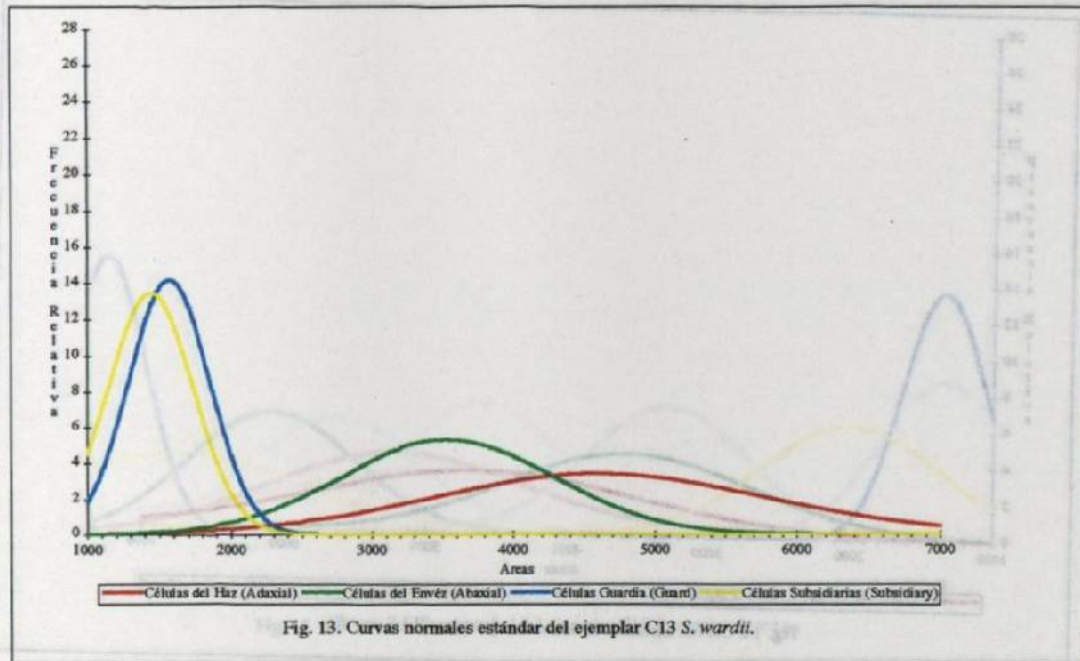


Fig. 13. Curvas normales estándar del ejemplar C13 *S. wardii*.

Cuadro 14. Datos estadísticos de C14 *S. wardii*.

P#020606-1 Colombia, Venezuela y los países al norte incl. Guatemala, pero no dentro de México

#	Células del Haz (Adaxial Cells)					Células del Envés (Abaxial Cells)					Células Guardia (Guard Cells)					Células Subsidiarias (Subsidiary Cells)				
	Largo (Lh)		Ancho (Ah)		Área	Largo (Le)		Ancho (Ae)		Área	Largo (Lg)		Ancho (Ag)		Área	Largo (Ls)		Ancho (As)		Área
	Indice	μ_m	Indice	μ_m	μ_m	Indice	μ_m	Indice	μ_m	μ_m	Indice	μ_m	Indice	μ_m	μ_m	Indice	μ_m	Indice	μ_m	μ_m
1	0.80	86.15	0.45	48.46	4175.15	0.75	80.77	0.70	75.38	6088.76	0.45	48.46	0.35	37.69	1826.63	0.60	64.62	0.30	32.31	2087.57
2	0.70	75.38	0.70	75.38	5682.84	0.55	59.23	0.55	59.23	3508.28	0.32	34.46	0.30	32.31	1113.37	0.35	37.69	0.35	37.69	1420.71
3	0.70	75.38	0.65	70.00	5276.92	0.60	64.62	0.55	59.23	3827.22	0.32	34.46	0.30	32.31	1113.37	0.40	43.08	0.20	21.54	927.81
4	0.50	53.85	0.60	64.62	3479.29	0.50	53.85	0.55	59.23	3189.35	0.30	32.31	0.30	32.31	1043.79	0.40	43.08	0.20	21.54	927.81
5	0.85	91.54	0.65	70.00	6407.69	0.65	70.00	0.50	53.85	3769.23	0.32	34.46	0.32	34.46	1187.60	0.55	59.23	0.30	32.31	1913.61
6	0.80	86.15	0.55	59.23	5102.96	0.55	59.23	0.50	53.85	3189.35	0.40	43.08	0.40	43.08	1855.62	0.62	66.77	0.30	32.31	2157.16
7	0.80	86.15	0.55	59.23	5102.96	0.50	53.85	0.70	75.38	4059.17	0.40	43.08	0.38	40.92	1762.84	0.55	59.23	0.38	40.92	2423.90
8	0.55	59.23	0.55	59.23	3508.28	0.65	70.00	0.50	53.85	3769.23	0.40	43.08	0.40	43.08	1855.62	0.45	48.46	0.40	43.08	2087.57
9	0.68	73.23	0.62	66.77	4889.56	0.50	53.85	0.60	64.62	3479.29	0.35	37.69	0.30	32.31	1217.75	0.35	37.69	0.35	37.69	1420.71
10	0.70	75.38	0.55	59.23	4465.09	0.55	59.23	0.50	53.85	3189.35	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.30	32.31	1739.64
11	0.65	70.00	0.62	66.77	4673.85	0.75	80.77	0.55	59.23	4784.02	0.38	40.92	0.38	40.92	1674.70	0.50	53.85	0.50	53.85	2899.41
12	0.70	75.38	0.65	70.00	5276.92	0.50	53.85	0.70	75.38	4059.17	0.38	40.92	0.32	34.46	1410.27	0.45	48.46	0.30	32.31	1565.68
13	0.55	59.23	0.65	70.00	4146.15	0.48	51.69	0.60	64.62	3340.12	0.40	43.08	0.35	37.69	1623.67	0.50	53.85	0.40	43.08	2319.53
14	0.70	75.38	0.60	64.62	4871.01	0.50	53.85	0.58	62.46	3363.31	0.35	37.69	0.32	34.46	1298.95	0.60	64.62	0.42	45.23	2922.60
15	0.72	77.54	0.65	70.00	5427.69	0.55	59.23	0.60	64.62	3827.22	0.32	34.46	0.32	34.46	1187.60	0.45	48.46	0.30	32.31	1565.68
16	0.65	70.00	0.55	59.23	4146.15	0.48	51.69	0.45	48.46	2505.09	0.32	34.46	0.32	34.46	1187.60	0.55	59.23	0.55	59.23	3508.28
17	0.55	59.23	0.50	53.85	3189.35	0.52	56.00	0.60	64.62	3618.46	0.32	34.46	0.32	34.46	1187.60	0.32	34.46	0.30	32.31	1113.37
18	0.62	66.77	0.65	70.00	4673.85	0.48	51.69	0.50	53.85	2783.43	0.30	32.31	0.30	32.31	1043.79	0.40	43.08	0.40	43.08	1855.62
19	0.55	59.23	0.50	53.85	3189.35	0.60	64.62	0.65	70.00	4523.08	0.30	32.31	0.32	34.46	1113.37	0.45	48.46	0.45	48.46	2348.52
20	0.85	91.54	0.70	75.38	6900.59	0.58	62.46	0.58	62.46	3901.44	0.35	37.69	0.35	37.69	1420.71	0.42	45.23	0.35	37.69	1704.85
21	0.50	53.85	0.45	48.46	2609.47	0.65	70.00	0.60	64.62	4523.08	0.40	43.08	0.38	40.92	1762.84	0.50	53.85	0.45	48.46	2609.47
22	0.60	64.62	0.60	64.62	4175.15	0.50	53.85	0.60	64.62	3479.29	0.30	32.31	0.30	32.31	1043.79	0.55	59.23	0.40	43.08	2551.48
23	0.78	84.00	0.82	88.31	7417.85	0.55	59.23	0.40	43.08	2551.48	0.30	32.31	0.30	32.31	1043.79	0.40	43.08	0.40	43.08	1855.62
24	0.70	75.38	0.50	53.85	4059.17	0.40	43.08	0.45	48.46	2087.57	0.32	34.46	0.32	34.46	1187.60	0.40	43.08	0.55	59.23	2551.48
25	0.70	75.38	0.45	48.46	3653.25	0.40	43.08	0.40	43.08	1855.62	0.30	32.31	0.30	32.31	1043.79	0.45	48.46	0.30	32.31	1565.68
Suma	1820.00			1589.54	116500.33		1479.69		1498.00	89271.61	8.70	936.92	8.25	888.46	33598.34		1261.08		985.38	50043.78
Promedio	72.80			63.58	4660.01		59.19		59.92	3570.86	0.35	37.48	0.33	35.54	1343.96		50.44		39.42	2001.75
D.E. (σ)	11.19			9.63	1158.82		9.62		9.08	887.75	0.04	4.82	0.03	3.64	292.82		8.95		9.82	641.75

Promedio del área de las células del haz: 4660.02 micras cuadradas
 Promedio del área de las células del envés: 3570.86 micras cuadradas
 El promedio de las células del haz es 1.31 veces el promedio de las células del envés.
 El promedio de las células guardia es 1.05 veces el promedio del ancho.
 El promedio de las células subsidiarias es 1.28 veces el promedio del ancho.

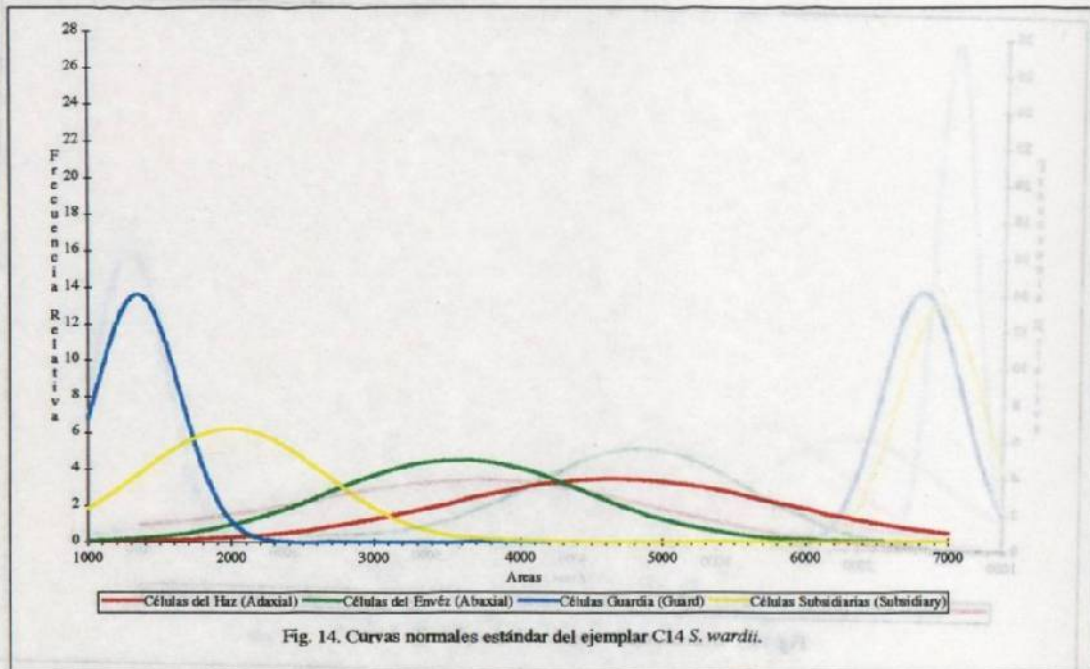


Fig. 14. Curvas normales estándar del ejemplar C14 *S. wardii*.

Cuadro 15. Datos estadísticos de C15. *S. nigroviolacea*.

C15 *S. nigroviolacea* (Méx) Pf#311095-4 México (I)

#	Células del Haz (Adaxial Cells)					Células del Envés (Abaxial Cells)					Células Guardia (Guard Cells)					Células Subsidiarias (Subsidiary Cells)				
	Largo (Lh)		Ancho (Ah)		Área (Ph)	Largo (Le)		Ancho (Ae)		Área (Pe)	Largo (Lg)		Ancho (Ag)		Área (Pgh)	Largo (La)		Ancho (As)		Área (Psh)
	Indice	μ_m	Indice	μ_m		Indice	μ_m	Indice	μ_m		Indice	μ_m	Indice	μ_m		Indice	μ_m	Indice	μ_m	
1	0.70	75.38	0.42	45.23	3409.70	0.50	53.85	0.30	32.31	1739.64	0.28	30.15	0.25	26.92	811.83	0.62	66.77	0.20	21.54	1438.11
2	0.65	70.00	0.38	40.92	2864.61	0.80	86.15	0.40	43.08	3711.24	0.35	37.69	0.25	26.92	1014.79	0.55	59.23	0.20	21.54	1275.74
3	0.80	86.15	0.40	43.08	3711.24	0.40	43.08	0.40	43.08	1855.62	0.38	40.92	0.28	30.15	1233.99	0.58	62.46	0.30	32.31	2017.99
4	0.60	64.62	0.35	37.69	2435.50	0.50	53.85	0.35	37.69	2029.59	0.38	40.92	0.30	32.31	1322.13	0.30	32.31	0.20	21.54	695.86
5	0.80	86.15	0.32	34.46	2968.99	0.40	43.08	0.40	43.08	1855.62	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.20	21.54	1159.76
6	0.80	86.15	0.35	37.69	3247.34	0.40	43.08	0.40	43.08	1855.62	0.40	43.08	0.30	32.31	1391.72	0.60	64.62	0.32	34.46	2226.75
7	0.70	75.38	0.35	37.69	2841.42	0.50	53.85	0.25	26.92	1449.70	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.20	21.54	1043.79
8	0.90	96.92	0.35	37.69	3653.25	0.55	59.23	0.30	32.31	1913.61	0.35	37.69	0.25	26.92	1014.79	0.50	53.85	0.31	33.38	1797.63
9	0.70	75.38	0.30	32.31	2435.50	0.50	53.85	0.35	37.69	2029.59	0.40	43.08	0.30	32.31	1391.72	0.65	70.00	0.35	37.69	2638.46
10	0.55	59.23	0.30	32.31	1913.61	0.45	48.46	0.40	43.08	2087.57	0.35	37.69	0.28	30.15	1136.37	0.60	64.62	0.20	21.54	1391.72
11	0.65	70.00	0.30	32.31	2261.54	0.50	53.85	0.40	43.08	2319.53	0.38	40.92	0.28	30.15	1233.99	0.60	64.62	0.20	21.54	1391.72
12	0.70	75.38	0.42	45.23	3409.70	0.70	75.38	0.40	43.08	3247.34	0.35	37.69	0.25	26.92	1014.79	0.55	59.23	0.60	64.62	3827.22
13	1.00	107.69	0.32	34.46	3711.24	0.60	64.62	0.45	48.46	3131.36	0.35	37.69	0.25	26.92	1014.79	0.60	64.62	0.15	16.15	1043.79
14	0.70	75.38	0.30	32.31	2435.50	0.52	56.00	0.35	37.69	2110.77	0.35	37.69	0.22	23.69	893.02	0.50	53.85	0.60	64.62	3479.29
15	0.70	75.38	0.25	26.92	2029.59	0.40	43.08	0.40	43.08	1855.62	0.38	40.92	0.28	30.15	1233.99	0.60	64.62	0.45	48.46	3131.36
16	0.70	75.38	0.35	37.69	2841.42	0.55	59.23	0.35	37.69	2232.54	0.35	37.69	0.30	32.31	1217.75	0.52	56.00	0.28	30.15	1688.62
17	0.70	75.38	0.30	32.31	2435.50	0.40	43.08	0.40	43.08	1855.62	0.30	32.31	0.20	21.54	695.86	0.50	53.85	0.25	26.92	1449.70
18	0.75	80.77	0.30	32.31	2609.47	0.55	59.23	0.30	32.31	1913.61	0.35	37.69	0.30	32.31	1217.75	0.45	48.46	0.20	21.54	1043.79
19	0.65	70.00	0.35	37.69	2638.46	0.48	51.69	0.35	37.69	1948.40	0.30	32.31	0.25	26.92	869.82	0.40	43.08	0.40	43.08	1855.62
20	0.70	75.38	0.35	37.69	2841.42	0.60	64.62	0.40	43.08	2783.43	0.30	32.31	0.25	26.92	869.82	0.35	37.69	0.21	22.62	852.43
21	1.05	113.08	0.40	43.08	4871.01	0.70	75.38	0.40	43.08	3247.34	0.32	34.46	0.28	30.15	1039.15	0.60	64.62	0.10	10.77	695.86
22	0.80	86.15	0.30	32.31	2783.43	0.45	48.46	0.35	37.69	1826.63	0.32	34.46	0.25	26.92	927.81	0.50	53.85	0.15	16.15	869.82
23	0.90	96.92	0.40	43.08	4175.15	0.50	53.85	0.40	43.08	2319.53	0.30	32.31	0.25	26.92	869.82	0.50	53.85	0.10	10.77	579.88
24	0.90	96.92	0.38	40.92	3966.39	0.52	56.00	0.35	37.69	2110.77	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.10	10.77	579.88
25	1.10	118.46	0.45	48.46	5740.83	0.65	70.00	0.42	45.23	3166.15	0.40	43.08	0.40	43.08	1855.62	0.65	70.00	0.25	26.92	1884.62
Suma	2067.69		935.85	78231.82		1412.92		998.31	56596.44	8.84	952.00	6.87	739.85	28446.67		1418.31		702.15	40059.38	
Promedio	82.71		37.43	3129.27		56.52		39.93	2263.96	0.35	38.08	0.27	29.59	1157.87		56.73		28.09	1602.38	
D.E. (σ)	14.90		5.31	892.38		11.23		4.99	590.48	0.04	4.11	0.04	4.11	258.48		9.60		14.51	886.17	

Promedio del área de las células del haz: 3129.27 micras cuadradas 319.56 células/mm cuadrados
 Promedio del área de las células del envés: 2263.96 micras cuadradas 441.72 células/mm cuadrados
 El promedio de las células del haz es 1.38 veces el promedio de las células del envés.
 El promedio de las células guardia es 1.29 veces el promedio del ancho.
 El promedio de las células subsidiarias es 2.02 veces el promedio del ancho.

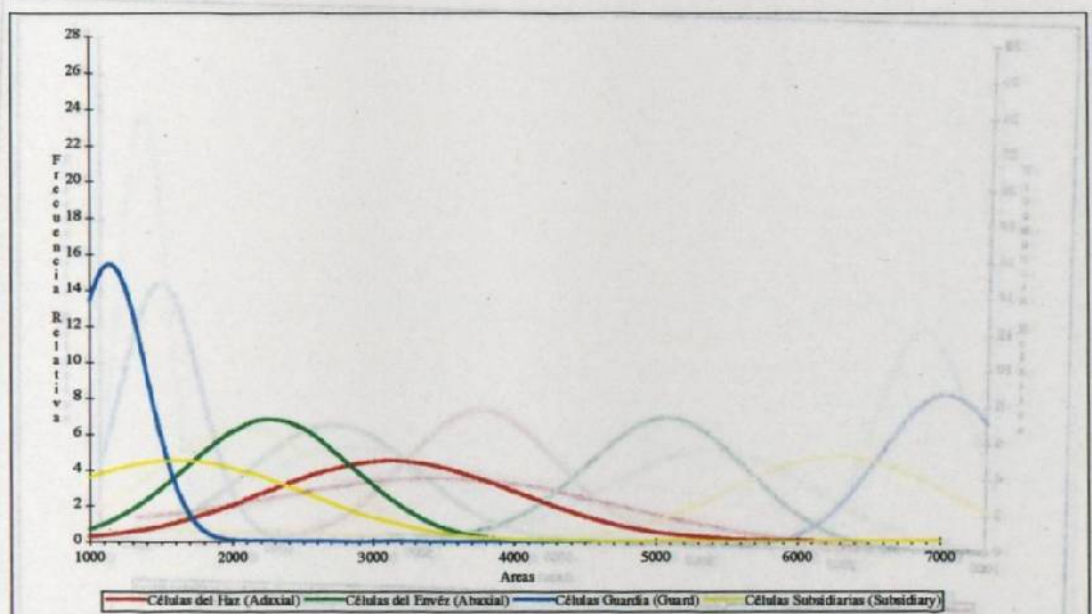


Fig. 15. Curvas normales estándar del ejemplar C15 *S. nigroviolacea*.

Cuadro 16. Datos estadísticos de C16.S. insignis.

C16.S. insignis (Bril) PI#290496-8 Brasil (I), Colombia, Ecuador, Las Guyanas, Perú, Venezuela

#	Células del Haz (Adaxial Cella)					Células del Envés (Abaxial Cella)					Células Guardia (Guard Cells)					Células Subsidiarias (Subsidiary Cella)				
	Largo (Lh)		Ancho (Ah)		Área (µm²)	Largo (Le)		Ancho (Ae)		Área (µm²)	Largo (Lg)		Ancho (Ag)		Área (µm²)	Largo (Ls)		Ancho (As)		Área (µm²)
	Indice	µm	Indice	µm		Indice	µm	Indice	µm		Indice	µm	Indice	µm		Indice	µm	Indice	µm	
1	0.80	86.15	0.45	48.46	4175.15	0.48	51.69	0.50	53.85	2783.43	0.40	43.08	0.20	21.54	927.81	0.45	48.46	0.45	48.46	2348.52
2	0.72	77.54	0.60	64.62	5010.18	0.70	75.38	0.52	56.00	4221.54	0.40	43.08	0.15	16.15	695.86	0.45	48.46	0.30	32.31	1565.68
3	1.00	107.69	0.80	86.15	9278.11	0.60	64.62	0.60	64.62	4175.15	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.35	37.69	1623.67
4	0.70	75.38	0.50	53.85	4059.17	0.60	64.62	0.45	48.46	3131.36	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.50	53.85	2319.53
5	0.70	75.38	0.50	53.85	4059.17	0.68	73.23	0.40	43.08	3154.56	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.20	21.54	1043.79
6	0.82	88.31	0.48	51.69	4564.83	0.60	64.62	0.50	53.85	3479.29	0.40	43.08	0.20	21.54	927.81	0.40	43.08	0.50	53.85	2319.53
7	0.65	70.00	0.48	51.69	3618.46	0.62	66.77	0.40	43.08	2876.21	0.45	48.46	0.40	43.08	2087.57	0.45	48.46	0.50	53.85	2609.47
8	0.70	75.38	0.50	53.85	4059.17	0.85	91.54	0.40	43.08	3943.19	0.40	43.08	0.40	43.08	1855.62	0.45	48.46	0.50	53.85	2609.47
9	0.60	64.62	0.50	53.85	3479.29	0.55	59.23	0.50	53.85	3189.35	0.40	43.08	0.35	37.69	1623.67	0.45	48.46	0.65	70.00	3392.31
10	0.85	91.54	0.55	59.23	5421.89	0.55	59.23	0.50	53.85	3189.35	0.45	48.46	0.32	34.46	1670.06	0.35	37.69	0.45	48.46	1826.63
11	0.75	80.77	0.50	53.85	4349.11	0.60	64.62	0.45	48.46	3131.36	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.35	37.69	1826.63
12	0.92	99.08	0.45	48.46	4801.42	0.75	80.77	0.52	56.00	4523.08	0.45	48.46	0.28	30.15	1461.30	0.45	48.46	0.20	21.54	1043.79
13	0.70	75.38	0.50	53.85	4059.17	0.70	75.38	0.40	43.08	3247.34	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.40	43.08	2319.53
14	0.65	70.00	0.50	53.85	3769.23	0.58	62.46	0.40	43.08	2690.65	0.30	32.31	0.20	21.54	695.86	0.40	43.08	0.45	48.46	2087.57
15	0.70	75.38	0.50	53.85	4059.17	0.45	48.46	0.50	53.85	2609.47	0.30	32.31	0.20	21.54	695.86	0.42	45.23	0.40	43.08	1948.40
16	0.68	73.23	0.55	59.23	4337.51	0.55	59.23	0.45	48.46	2870.41	0.40	43.08	0.30	32.31	1391.72	0.70	75.38	0.50	53.85	4059.17
17	1.00	107.69	0.58	62.46	6726.63	0.68	73.23	0.40	43.08	3154.56	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.20	21.54	1159.76
18	0.80	86.15	0.55	59.23	5102.96	0.62	66.77	0.60	64.62	4314.32	0.35	37.69	0.25	26.92	1014.79	0.45	48.46	0.25	26.92	1304.73
19	0.58	62.46	0.60	64.62	4085.98	0.52	56.00	0.52	56.00	3136.00	0.35	37.69	0.30	32.31	1217.75	0.55	59.23	0.45	48.46	2870.41
20	0.92	99.08	0.58	62.46	6188.50	0.45	48.46	0.45	48.46	2348.52	0.45	48.46	0.30	32.31	1565.68	0.45	48.46	0.40	43.08	2087.57
21	0.70	75.38	0.62	66.77	5033.37	0.50	53.85	0.55	59.23	3189.35	0.50	53.85	0.40	43.08	2319.53	0.40	43.08	0.45	48.46	2087.57
22	0.82	88.31	0.52	56.00	4945.23	0.62	66.77	0.42	45.23	3020.02	0.45	48.46	0.30	32.31	1565.68	0.50	53.85	0.45	48.46	2609.47
23	0.90	96.92	0.45	48.46	4697.04	0.70	75.38	0.42	45.23	3409.70	0.35	37.69	0.25	26.92	1014.79	0.40	43.08	0.20	21.54	927.81
24	0.70	75.38	0.55	59.23	4465.09	0.50	53.85	0.45	48.46	2609.47	0.30	32.31	0.15	16.15	521.89	0.40	43.08	0.20	21.54	927.81
25	0.75	80.77	0.60	64.62	5218.93	0.50	53.85	0.50	53.85	2899.41	0.25	26.92	0.20	21.54	579.88	0.45	48.46	0.30	32.31	1565.68
Suma	2058.00		1444.15		119514.75	1610.00		1270.77		81297.08	9.75	1050.00	6.95	748.46	32183.43	1213.69		1033.85		50484.49
Promedio	82.32		57.77		4780.36	64.40		50.83		3254.68	0.39	42.00	0.28	29.94	1287.36	48.55		41.35		2019.38
D. E. (σ)	12.43		8.01		1207.17	10.60		6.57		570.29	0.06	6.22	0.07	7.65	460.87	7.24		13.35		774.35

Promedio del área de las células del haz: 4780.59 micras cuadradas
 Promedio del área de las células del envés: 3251.88 micras cuadradas
 El promedio de las células del haz es 1.47 veces el promedio de las células del envés.
 El promedio de las células guardia es 1.40 veces el promedio del ancho.
 El promedio de las células subsidiarias es 1.17 veces el promedio del ancho.

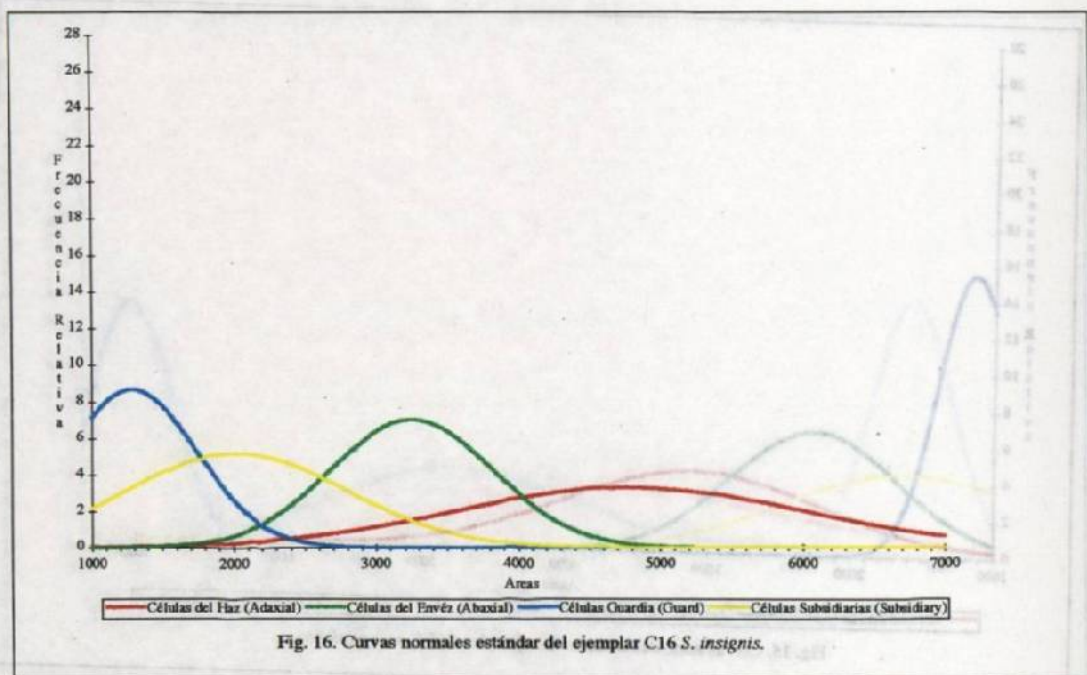


Fig. 16. Curvas normales estándar del ejemplar C16.S. insignis.

Cuadro 17. Datos estadísticos de C17*S. costaricensis*.

C17 *S. costaricensis* (CRa1) P#200696.1 Costa Rica (I)

#	Células del Haz (Adaxial Cells)					Células del Envés (Abaxial Cells)					Células Guardia (Guard Cells)					Células Subsidiarias (Subsidiary Cells)				
	Largo (Lh)		Ancho (Ah)		Área (µm²)	Largo (Le)		Ancho (Ae)		Área (µm²)	Largo (Lg)		Ancho (Ag)		Área (µm²)	Largo (Ls)		Ancho (As)		Área (µm²)
	Indice	µm	Indice	µm		Indice	µm	Indice	µm		Indice	µm	Indice	µm		Indice	µm	Indice	µm	
1	0.62	66.77	0.50	53.85	3395.27	0.50	53.85	0.50	53.85	2899.41	0.35	37.69	0.30	32.31	1217.75	0.45	48.46	0.20	21.54	1043.79
2	0.60	64.62	0.50	53.85	3479.29	0.35	37.69	0.40	43.08	1623.67	0.35	37.69	0.30	32.31	1217.75	0.40	43.08	0.20	21.54	927.81
3	0.72	77.54	0.50	53.85	4175.15	0.55	59.23	0.60	64.62	3827.22	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.50	53.85	2609.47
4	0.74	79.69	0.50	53.85	4291.12	0.55	59.23	0.45	48.46	2870.41	0.30	32.31	0.30	32.31	1043.79	0.50	53.85	0.40	43.08	2319.53
5	0.65	70.00	0.55	59.23	4146.15	0.65	70.00	0.50	53.85	3769.23	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.50	53.85	2319.53
6	0.67	72.15	0.52	56.00	4040.61	0.35	37.69	0.40	43.08	1623.67	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.35	37.69	2029.59
7	0.60	64.62	0.52	56.00	3618.46	0.40	43.08	0.50	53.85	2319.53	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.40	43.08	2087.57
8	0.66	71.08	0.50	53.85	3827.22	0.45	48.46	0.45	48.46	2348.52	0.35	37.69	0.35	37.69	1420.71	0.40	43.08	0.25	26.92	1159.76
9	0.72	77.54	0.50	53.85	4175.15	0.60	64.62	0.45	48.46	3131.36	0.35	37.69	0.35	37.69	1420.71	0.50	53.85	0.45	48.46	2609.47
10	0.69	74.31	0.50	53.85	4001.18	0.40	43.08	0.50	53.85	2319.53	0.40	43.08	0.30	32.31	1391.72	0.60	64.62	0.30	32.31	2087.57
11	0.63	67.85	0.48	51.69	3507.12	0.50	53.85	0.50	53.85	2899.41	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.36	38.34	1857.94
12	0.70	75.38	0.50	53.85	4059.17	0.50	53.85	0.45	48.46	2609.47	0.40	43.08	0.35	37.69	1623.67	0.45	48.46	0.35	37.69	1826.63
13	0.69	74.31	0.55	59.23	4401.30	0.50	53.85	0.40	43.08	2319.53	0.35	37.69	0.35	37.69	1420.71	0.40	43.08	0.50	53.85	2319.53
14	0.72	77.54	0.45	48.46	3757.63	0.70	75.38	0.40	43.08	3247.34	0.35	37.69	0.35	37.69	1420.71	0.50	53.85	0.45	48.46	2609.47
15	0.61	65.69	0.45	48.46	3183.55	0.60	64.62	0.40	43.08	2783.43	0.40	43.08	0.40	43.08	1855.62	0.60	64.62	0.50	53.85	3479.29
16	0.61	65.69	0.36	38.77	2546.84	0.40	43.08	0.40	43.08	1855.62	0.40	43.08	0.45	48.46	2087.57	0.60	64.62	0.15	16.15	1043.79
17	0.71	76.46	0.48	51.69	3952.47	0.55	59.23	0.50	53.85	3189.35	0.45	48.46	0.35	37.69	1826.63	0.60	64.62	0.30	32.31	2087.57
18	0.75	80.77	0.50	53.85	4349.11	0.60	64.62	0.40	43.08	2783.43	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.30	32.31	1391.72
19	0.64	68.92	0.55	59.23	4082.37	0.50	53.85	0.40	43.08	2319.53	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.20	21.54	927.81
20	0.55	59.23	0.43	46.31	2742.84	0.35	37.69	0.50	53.85	2029.99	0.35	37.69	0.30	32.31	1217.75	0.55	59.23	0.35	37.69	2232.54
21	0.70	75.38	0.43	46.31	3490.89	0.60	64.62	0.50	53.85	3479.29	0.35	37.69	0.30	32.31	1217.75	0.60	64.62	0.35	37.69	2435.50
22	0.72	77.54	0.41	44.15	3423.62	0.50	53.85	0.50	53.85	2899.41	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.35	37.69	2029.59
23	0.67	72.15	0.42	45.23	3263.57	0.40	43.08	0.40	43.08	1855.62	0.40	43.08	0.35	37.69	1623.67	0.55	59.23	0.35	37.69	2232.54
24	0.73	78.62	0.48	51.69	4063.81	0.50	53.85	0.50	53.85	2899.41	0.45	48.46	0.35	37.69	1826.63	0.60	64.62	0.35	37.69	2435.50
25	0.53	57.08	0.40	43.08	2458.70	0.40	43.08	0.50	53.85	2319.53	0.25	26.92	0.25	26.92	724.85	0.45	48.46	0.35	37.69	1826.63
Suma	1790.92		1290.15	92632.60		1305.38		1238.46	60222.48	9.45	1017.69	8.10	872.31	35691.71		1324.62		942.95	49990.12	
Promedio	71.64		51.61	3765.30		53.42		49.54	2648.90	0.38	40.71	0.32	34.89	1447.79		52.98		37.72	1997.20	
D. E. (σ)	6.41		5.28	543.05		10.53		5.82	610.02	0.04	4.68	0.04	4.43	277.13		8.18		10.77	626.00	

Promedio del área de las células del haz: 3705.30 micras cuadradas 269.88 células/mm cuadrados
 Promedio del área de las células del envés: 2648.90 micras cuadradas 377.52 células/mm cuadrados
 El promedio de las células del haz es 1.40 veces el promedio de las células del envés.
 El promedio de las células guardia es 1.17 veces el promedio del ancho.
 El promedio de las células subsidiarias es 1.40 veces el promedio del ancho.

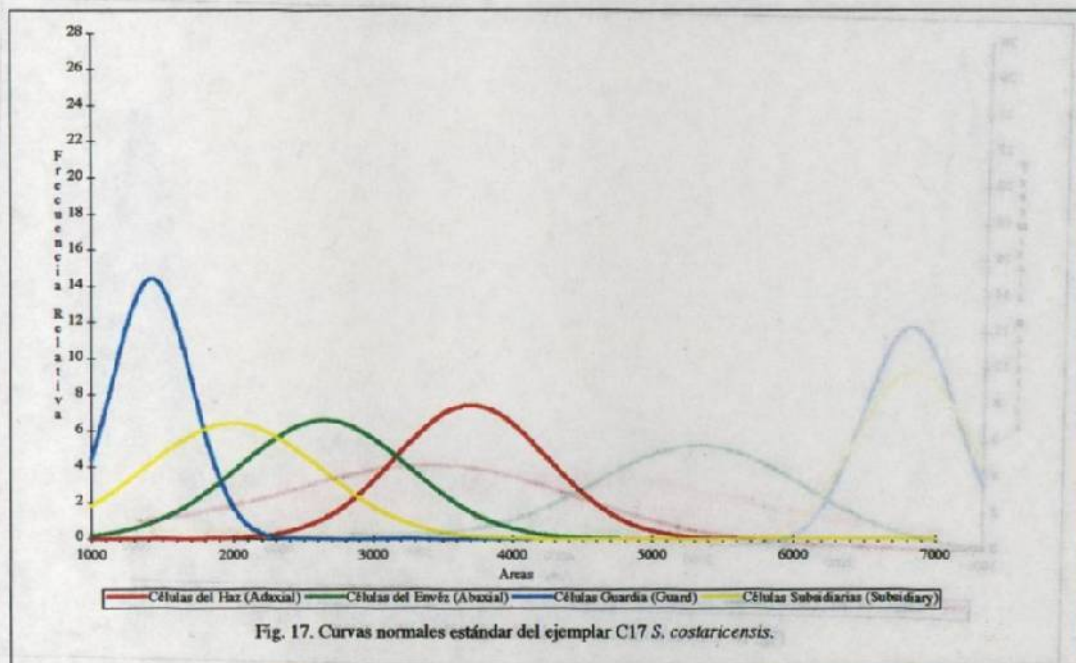


Fig. 17. Curvas normales estándar del ejemplar C17 *S. costaricensis*.

Cuadro 18. Datos estadísticos de C18 S. pozoi.

C18 S. pozoi (Col) P#200696-2 Colombia (I), Perú

#	Células del Haz (Adaxial Cells)				Células del Envés (Abaxial Cells)				Células Guardia (Guard Cells)				Células Subsidiarias (Subsidiary Cells)							
	Largo (Lh)		Ancho (Ah)		Largo (Le)		Ancho (Ae)		Largo (Lg)		Ancho (Ag)		Largo (Ls)		Ancho (As)					
	Indice	µm	Indice	µm	Indice	µm	Indice	µm	Indice	µm	Indice	µm	Indice	µm	Indice	µm				
1	0.78	84.00	0.66	71.08	5970.46	0.58	62.46	0.60	64.62	4053.98	0.50	53.85	0.35	37.69	2029.59	0.42	45.23	0.30	32.31	1461.30
2	1.00	107.69	0.60	64.62	6958.58	0.50	53.85	0.45	48.46	2609.47	0.45	48.46	0.28	30.15	1461.30	0.48	51.69	0.24	25.85	1336.05
3	0.92	99.08	0.58	62.46	6188.50	0.50	53.85	0.50	53.85	2899.41	0.50	53.85	0.35	37.69	2029.59	0.40	43.08	0.30	32.31	1391.72
4	0.72	77.54	0.52	56.00	4342.15	0.55	59.23	0.60	64.62	3827.22	0.48	51.69	0.28	30.15	1558.72	0.46	49.54	0.25	26.92	1333.73
5	0.68	73.23	0.45	48.46	3548.88	0.45	48.46	0.68	73.23	3548.88	0.35	37.69	0.25	26.92	1014.79	0.44	47.38	0.30	32.31	1530.89
6	0.80	86.15	0.45	48.46	4175.15	0.60	64.62	0.40	43.08	2783.43	0.45	48.46	0.30	32.31	1565.68	0.40	43.08	0.28	30.15	1298.93
7	0.85	91.54	0.60	64.62	5914.79	0.55	59.23	0.38	40.92	2423.90	0.50	53.85	0.35	37.69	2029.59	0.46	49.54	0.42	45.23	2240.66
8	0.60	64.62	0.60	64.62	4175.15	0.40	43.08	0.40	43.08	1855.62	0.45	48.46	0.30	32.31	1565.68	0.40	43.08	0.20	21.54	927.81
9	0.60	64.62	0.60	64.62	4175.15	0.45	48.46	0.40	43.08	2087.57	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.28	30.15	1298.93
10	0.65	70.00	0.65	70.00	4900.00	0.45	48.46	0.45	48.46	2348.52	0.40	43.08	0.30	32.31	1391.72	0.46	49.54	0.24	25.85	1280.38
11	0.60	64.62	0.70	75.38	4871.01	0.78	84.00	0.30	32.31	2713.85	0.50	53.85	0.30	32.31	1739.64	0.40	43.08	0.22	23.69	1020.59
12	0.60	64.62	0.70	75.38	4871.01	0.55	59.23	0.45	48.46	2870.41	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.25	26.92	1304.73
13	0.65	70.00	0.60	64.62	4523.08	0.50	53.85	0.50	53.85	2899.41	0.40	43.08	0.30	32.31	1391.72	0.43	46.31	0.29	31.23	1446.22
14	0.60	64.62	0.60	64.62	4175.15	0.50	53.85	0.60	64.62	3479.29	0.40	43.08	0.25	26.92	1159.76	0.45	48.46	0.20	21.54	1043.79
15	0.85	91.54	0.75	80.77	7393.49	0.68	73.23	0.50	53.85	3943.19	0.40	43.08	0.25	26.92	1159.76	0.50	53.85	0.31	33.38	1797.63
16	0.60	64.62	0.60	64.62	4175.15	0.40	43.08	0.45	48.46	2087.57	0.40	43.08	0.28	30.15	1298.93	0.51	54.92	0.36	38.77	2129.33
17	0.80	86.15	0.65	70.00	6090.77	0.35	37.69	0.45	48.46	1826.63	0.42	45.23	0.30	32.31	1461.30	0.50	53.85	0.19	20.46	1101.77
18	0.62	66.77	0.60	64.62	4314.32	0.80	86.15	0.50	53.85	4039.05	0.45	48.46	0.30	32.31	1565.68	0.45	48.46	0.38	40.92	1983.19
19	0.75	80.77	0.60	64.62	5218.93	0.75	80.77	0.40	43.08	3479.29	0.55	59.23	0.30	32.31	1913.61	0.50	53.85	0.20	21.54	1159.76
20	0.70	75.38	0.55	59.23	4465.09	0.75	80.77	0.30	32.31	2609.47	0.50	53.85	0.40	43.08	2319.53	0.52	56.00	0.39	42.00	2352.00
21	0.55	59.23	0.55	59.23	3508.28	0.80	86.15	0.30	32.31	2783.43	0.40	43.08	0.25	26.92	1159.76	0.42	45.23	0.28	30.15	1363.88
22	0.70	75.38	0.58	62.46	4708.64	0.50	53.85	0.45	48.46	2609.47	0.40	43.08	0.25	26.92	1159.76	0.60	64.62	0.20	21.54	1391.72
23	0.70	75.38	0.62	66.77	5033.37	0.55	59.23	0.50	53.85	3189.35	0.42	45.23	0.30	32.31	1461.30	0.52	56.00	0.18	19.38	1083.54
24	0.70	75.38	0.60	64.62	4871.01	0.70	75.38	0.50	53.85	4059.17	0.40	43.08	0.30	32.31	1391.72	0.48	51.69	0.36	38.77	2004.07
25	0.65	70.00	0.50	53.85	3769.23	0.55	59.23	0.50	53.85	3189.35	0.40	43.08	0.30	32.31	1391.72	0.58	62.46	0.30	32.31	2017.99
Suma	1502.92		1605.69	122277.31		1528.15		1244.92	74798.92	10.92	1176.00	7.44	801.23	38004.28		1252.46		745.23	37302.62	
Promedio	76.12		64.23	4891.09		61.13		49.80	2991.96	0.44	47.04	0.30	32.05	1320.17		50.10		29.81	1482.10	
D.E. (σ)	12.21		7.56	1007.89		14.25		10.23	737.80	0.05	5.31	0.04	3.87	326.69		5.87		7.26	407.94	

Promedio del área de las células del haz: 4891.09 micras cuadradas 204.45 células/mm cuadrados
 Promedio del área de las células del envés: 2991.96 micras cuadradas 334.23 células/mm cuadrados
 El promedio de las células del haz es 1.63 veces el promedio de las células del envés.
 El promedio de las células guardia es 1.47 veces el promedio del ancho.
 El promedio de las células subsidiarias es 1.68 veces el promedio del ancho.

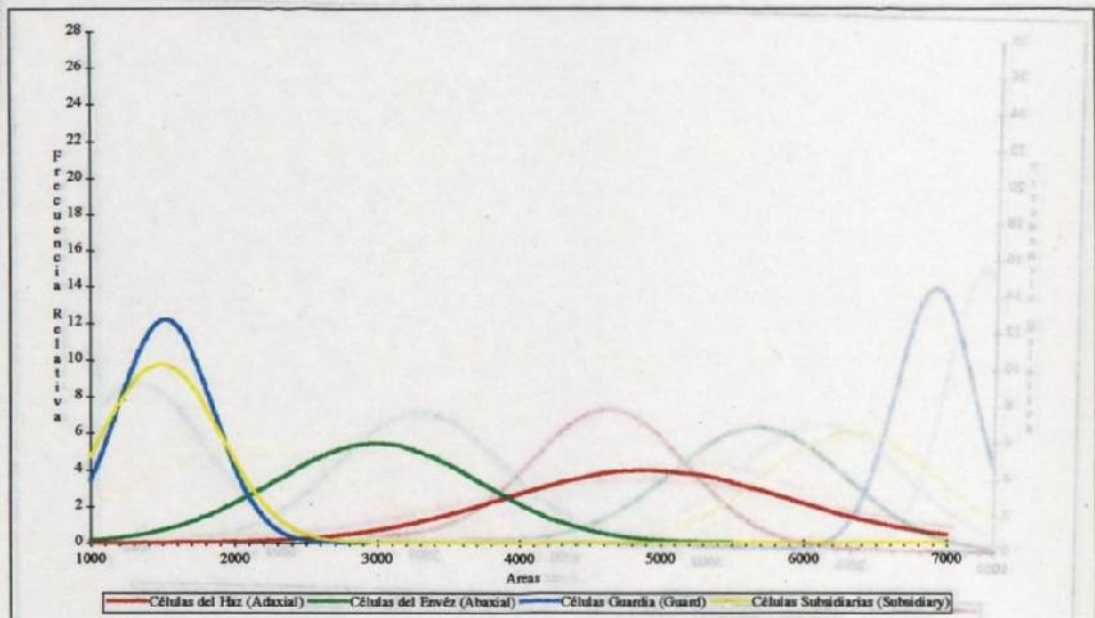


Fig. 18. Curvas normales estándar del ejemplar C18 S. pozoi.

Cuadro 19. Datos estadísticos de C19 *S. shuttleworthii*.

C19 *S. shuttleworthii* (Colf) P#200695-3 Colombia (I)

#	Células del Haz (Adaxial Cells)			Células del Envés (Abaxial Cells)			Células Guardia (Guard Cells)			Células Subsidiarias (Subsidiary Cells)										
	Largo (Lh)	Ancho (Ah)	Área	Largo (Le)	Ancho (Ae)	Área	Largo (Lg)	Ancho (Ag)	Área	Largo (La)	Ancho (Aa)	Área								
	Indice	μ_m	μ_m	Indice	μ_m	μ_m	Indice	μ_m	μ_m	Indice	μ_m	μ_m								
1	0.95	102.31	0.50	53.85	5508.87	0.55	59.23	0.40	43.08	2551.48	0.40	43.08	0.35	37.69	1623.67	0.50	53.85	0.50	53.85	2899.41
2	0.90	96.92	0.50	53.85	5218.93	0.60	64.62	0.50	53.85	3479.29	0.40	43.08	0.35	37.69	1623.67	0.50	53.85	0.30	32.31	1739.64
3	0.60	64.62	0.60	64.62	4175.15	0.55	59.23	0.50	53.85	3189.35	0.40	43.08	0.30	32.31	1391.72	0.40	43.08	0.20	21.54	927.81
4	0.75	80.77	0.50	53.85	4349.11	0.55	59.23	0.45	48.46	2870.41	0.35	37.69	0.32	34.46	1298.93	0.40	43.08	0.20	21.54	927.81
5	0.90	96.92	0.50	53.85	5218.93	0.55	59.23	0.45	48.46	2870.41	0.35	37.69	0.32	34.46	1298.93	0.45	48.46	0.50	53.85	2609.47
6	0.90	96.92	0.48	51.69	5010.18	0.70	75.38	0.60	64.62	4871.01	0.35	37.69	0.28	30.15	1136.37	0.45	48.46	0.50	53.85	2609.47
7	0.90	96.92	0.55	59.23	5740.83	0.45	48.46	0.40	43.08	2087.57	0.35	37.69	0.30	32.31	1217.75	0.50	53.85	0.25	26.92	1449.70
8	0.58	62.46	0.45	48.46	3026.98	0.55	59.23	0.50	53.85	3189.35	0.35	37.69	0.30	32.31	1217.75	0.50	53.85	0.20	21.54	1159.76
9	1.00	107.69	0.60	64.62	6958.38	0.40	43.08	0.45	48.46	2087.57	0.35	37.69	0.30	32.31	1217.75	0.45	48.46	0.30	32.31	2609.47
10	0.75	80.77	0.40	43.08	3479.29	0.40	43.08	0.42	45.23	1948.40	0.35	37.69	0.28	30.15	1136.37	0.40	43.08	0.40	43.08	1855.62
11	1.00	107.69	0.40	43.08	4639.05	0.50	53.85	0.40	43.08	2319.53	0.38	40.92	0.25	26.92	1101.77	0.50	53.85	0.30	32.31	1739.64
12	0.80	86.15	0.45	48.46	4175.15	0.60	64.62	0.50	53.85	3479.29	0.35	37.69	0.35	37.69	1420.71	0.50	53.85	0.30	32.31	1739.64
13	0.90	96.92	0.50	53.85	5218.93	0.50	53.85	0.48	51.69	2783.43	0.35	37.69	0.35	37.69	1420.71	0.45	48.46	0.55	59.23	2870.41
14	0.70	75.38	0.45	48.46	3633.25	0.65	70.00	0.60	64.62	4523.08	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.35	37.69	2029.59
15	0.80	86.15	0.40	43.08	3711.24	0.50	53.85	0.40	43.08	2319.53	0.40	43.08	0.35	37.69	1623.67	0.50	53.85	0.20	21.54	1159.76
16	0.90	96.92	0.40	43.08	4175.15	0.50	53.85	0.40	43.08	2319.53	0.35	37.69	0.30	32.31	1217.75	0.55	59.23	0.30	32.31	1913.61
17	0.80	86.15	0.40	43.08	3711.24	0.60	64.62	0.52	56.00	3618.46	0.40	43.08	0.35	37.69	1623.67	0.55	59.23	0.32	34.46	2041.18
18	0.75	80.77	0.40	43.08	3479.29	0.45	48.46	0.40	43.08	2087.57	0.40	43.08	0.30	32.31	1391.72	0.60	64.62	0.40	43.08	2783.43
19	0.70	75.38	0.60	64.62	4871.01	0.52	56.00	0.50	53.85	3015.38	0.35	37.69	0.30	32.31	1217.75	0.60	64.62	0.35	37.69	2435.50
20	0.80	86.15	0.75	80.77	6958.38	0.45	48.46	0.45	48.46	2348.52	0.35	37.69	0.35	37.69	1420.71	0.35	37.69	0.25	26.92	1014.79
21	0.65	70.00	0.40	43.08	3015.38	0.45	48.46	0.45	48.46	2348.52	0.35	37.69	0.35	37.69	1420.71	0.45	48.46	0.45	48.46	2348.52
22	0.70	75.38	0.40	43.08	3247.34	0.50	53.85	0.40	43.08	2319.53	0.38	40.92	0.25	26.92	1101.77	0.45	48.46	0.40	43.08	2087.57
23	0.70	75.38	0.35	37.69	2841.42	0.55	59.23	0.50	53.85	3189.35	0.40	43.08	0.30	32.31	1391.72	0.65	70.00	0.42	45.23	3166.15
24	0.55	59.23	0.45	48.46	2870.41	0.45	48.46	0.40	43.08	2087.57	0.40	43.08	0.28	30.15	1298.93	0.70	75.38	0.35	37.69	2841.42
25	0.80	86.15	0.45	48.46	4175.15	0.50	53.85	0.40	43.08	2319.53	0.40	43.08	0.25	26.92	1159.76	0.50	53.85	0.25	26.92	1449.70
Suma	2130.15		1279.38	109429.45		1402.15		1235.23	70223.66	9.31	1002.62	7.73	832.46	33366.39		1335.38		941.23	50409.11	
Promedio	85.21		51.18	4377.18		56.09		49.41	2839.59	0.37	40.10	0.31	33.30	1395.46		53.42		37.65	2016.36	
D.E. (σ)	13.58		9.71	1156.08		7.91		6.49	756.62	0.02	2.62	0.03	3.64	166.64		8.64		11.70	683.02	

Promedio del área de las células del haz: 4377.18 micras cuadradas = 228.46 células/mm cuadrados
 Promedio del área de las células del envés: 2808.95 micras cuadradas = 356.01 células/mm cuadrados
 El promedio de las células del haz es 1.56 veces el promedio de las células del envés.
 El promedio de las células guardia es 1.20 veces el promedio del ancho.
 El promedio de las células subsidiarias es 1.42 veces el promedio del ancho.

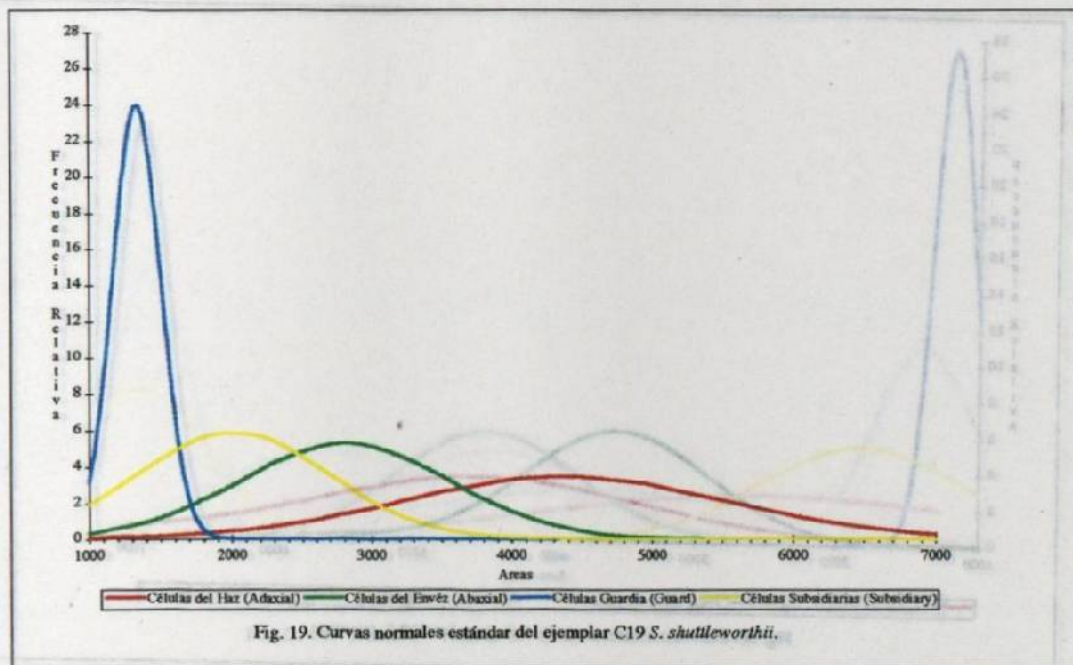


Fig. 19. Curvas normales estándar del ejemplar C19 *S. shuttleworthii*.

Cuadro 20. Datos estadísticos de C20. *S. tricornis*.

#	Células del Haz (Adaxial Cells)				Células del Envés (Abaxial Cells)				Células Guardia (Guard Cells)				Células Subsidiarias (Subsidiary Cells)						
	Largo (Lh)		Ancho (Ah)		Largo (Le)		Ancho (Ae)		Largo (Lg)		Ancho (Ag)		Largo (Ls)		Ancho (As)				
	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m	Indice	μ_m			
1	0.70	75.38	0.70	75.38	0.60	64.62	0.40	43.08	2.783.43	0.35	37.69	0.30	32.31	1217.75	0.40	43.08	0.45	48.46	2087.57
2	0.80	86.15	0.70	75.38	0.62	66.77	0.40	43.08	2876.21	0.30	32.31	0.30	32.31	1043.79	0.30	32.31	0.75	80.77	2609.47
3	0.65	70.00	0.60	64.62	0.80	86.15	0.40	43.08	3711.24	0.30	32.31	0.30	32.31	1043.79	0.55	59.23	0.55	59.23	3508.28
4	0.65	70.00	0.60	64.62	0.75	80.77	0.42	45.23	3653.25	0.30	32.31	0.30	32.31	1043.79	0.45	48.46	0.55	59.23	2870.41
5	0.75	80.77	0.65	70.00	0.74	79.69	0.42	45.23	3604.54	0.30	32.31	0.30	32.31	1043.79	0.40	43.08	0.30	32.31	1391.72
6	0.60	64.62	0.55	59.23	0.62	66.77	0.50	53.85	3595.27	0.30	32.31	0.30	32.31	1043.79	0.50	53.85	0.20	21.54	1159.76
7	0.60	64.62	0.60	64.62	0.75	80.77	0.45	48.46	3914.20	0.30	32.31	0.30	32.31	1043.79	0.50	53.85	0.25	26.92	1449.70
8	0.60	64.62	0.50	53.85	0.68	73.23	0.45	48.46	3548.88	0.30	32.31	0.30	32.31	1043.79	0.45	48.46	0.45	48.46	2348.52
9	0.55	59.23	0.55	59.23	0.72	77.54	0.49	52.77	4091.64	0.35	37.69	0.35	37.69	1420.71	0.40	43.08	0.45	48.46	2087.57
10	0.70	75.38	0.60	64.62	0.54	58.15	0.40	43.08	2505.09	0.35	37.69	0.35	37.69	1420.71	0.40	43.08	0.20	21.54	927.81
11	0.80	86.15	0.60	64.62	0.65	70.00	0.45	48.46	3392.31	0.35	37.69	0.35	37.69	1420.71	0.45	48.46	0.25	26.92	1304.73
12	0.90	96.92	0.75	80.77	0.65	70.00	0.55	59.23	4146.15	0.35	37.69	0.35	37.69	1420.71	0.65	70.00	0.40	43.08	3015.38
13	0.75	80.77	0.60	64.62	0.45	48.46	0.50	53.85	2609.47	0.35	37.69	0.35	37.69	1420.71	0.40	43.08	0.30	32.31	1391.72
14	0.55	59.23	0.55	59.23	0.98	105.54	0.45	48.46	5114.56	0.35	37.69	0.30	32.31	1217.75	0.50	53.85	0.35	37.69	2029.59
15	0.60	64.62	0.55	59.23	0.58	62.46	0.48	51.69	3228.78	0.35	37.69	0.30	32.31	1217.75	0.55	59.23	0.30	32.31	1913.61
16	0.60	64.62	0.60	64.62	0.60	64.62	0.40	43.08	2783.43	0.35	37.69	0.30	32.31	1217.75	0.60	64.62	0.40	43.08	2783.43
17	0.50	53.85	0.50	53.85	0.70	75.38	0.48	51.69	3896.80	0.35	37.69	0.30	32.31	1217.75	0.55	59.23	0.25	26.92	1594.67
18	0.70	75.38	0.60	64.62	0.65	70.00	0.42	45.23	3166.15	0.30	32.31	0.30	32.31	1043.79	0.50	53.85	0.25	26.92	1449.70
19	0.60	64.62	0.50	53.85	0.60	64.62	0.54	58.15	3757.63	0.30	32.31	0.30	32.31	1043.79	0.45	48.46	0.30	32.31	1565.68
20	0.75	80.77	0.65	70.00	0.70	75.38	0.50	53.85	4059.17	0.30	32.31	0.30	32.31	1043.79	0.30	32.31	0.35	37.69	1217.75
21	0.50	53.85	0.50	53.85	0.79	85.08	0.52	56.00	4764.31	0.30	32.31	0.30	32.31	1043.79	0.30	32.31	0.20	21.54	695.86
22	0.60	64.62	0.60	64.62	0.50	53.85	0.50	53.85	2899.41	0.35	37.69	0.30	32.31	1217.75	0.35	37.69	0.55	59.23	2232.54
23	0.65	70.00	0.65	70.00	0.70	75.38	0.45	48.46	3653.25	0.35	37.69	0.30	32.31	1217.75	0.50	53.85	0.30	32.31	1739.64
24	0.70	75.38	0.45	48.46	0.60	64.62	0.60	64.62	4175.15	0.35	37.69	0.30	32.31	1217.75	0.30	32.31	0.30	32.31	1043.79
25	0.75	80.77	0.45	48.46	0.50	53.85	0.51	54.92	2957.40	0.35	37.69	0.30	32.31	1217.75	0.40	43.08	0.20	21.54	927.81
Suma	1782.31		1572.31	113308.86		1773.69		1257.85	88887.73	8.20	883.08	7.75	834.62	29544.97		1200.77		953.08	45346.74
Promedio	71.29		62.89	4532.38		70.95		50.31	3552.31	0.33	35.32	0.31	33.38	1181.80		48.03		38.12	1813.87
D.E. (σ)	10.69		8.18	1166.20		12.13		5.83	652.70	0.03	2.73	0.02	2.20	145.28		10.30		14.90	732.12

Promedio del área de las células del haz: 4532.35 micras cuadradas

Promedio del área de las células del envés: 3555.51 micras cuadradas

El promedio de las células del haz es

1.27 veces el promedio de las células del envés.

El promedio de las células guardia es

1.06 veces el promedio del ancho.

El promedio de las células subsidiarias es

1.26 veces el promedio del ancho.

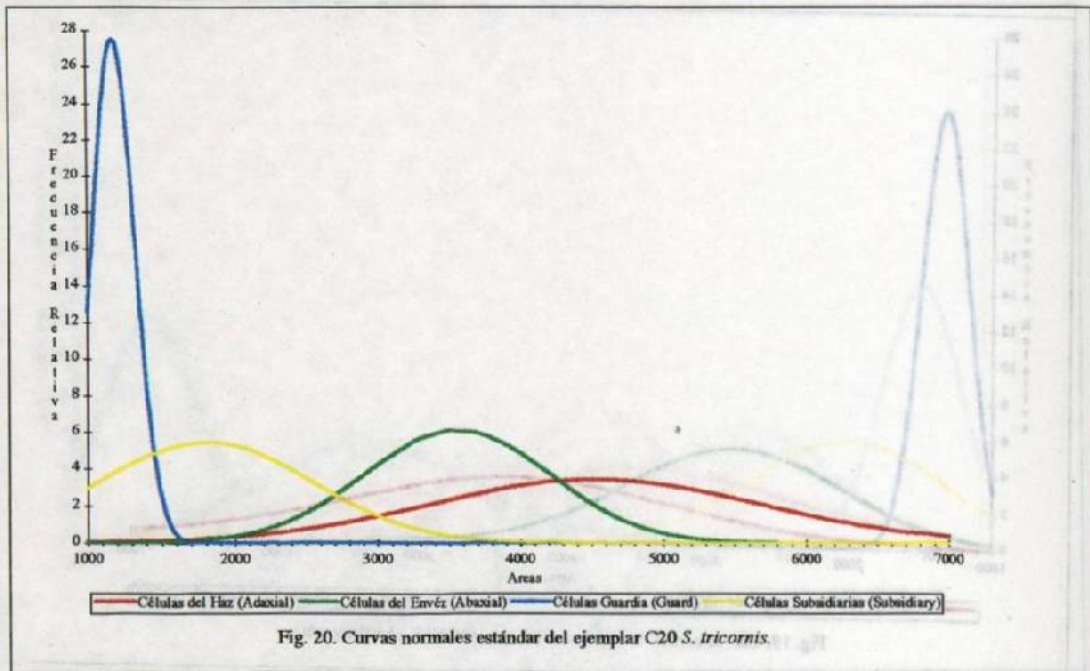


Fig. 20. Curvas normales estándar del ejemplar C20 *S. tricornis*.