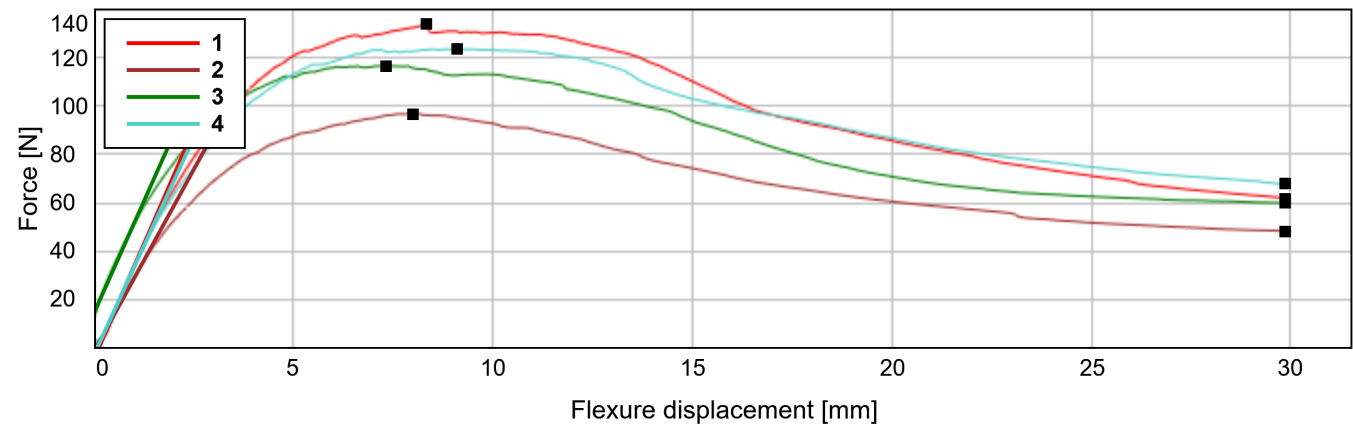


Testing material property influence on stalk flexural stiffness

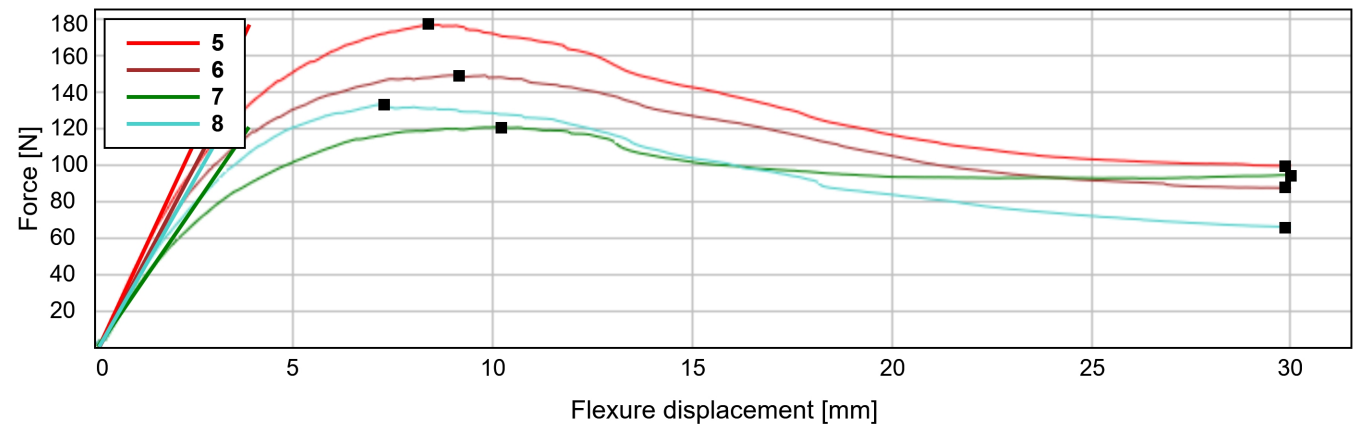
3-Point Bend Testing Protocol for Maize Stalks  
Erin Sparks Lab  
University of Delaware

Rate 1	1.50 mm/s
Operator	Irene Ikiriko

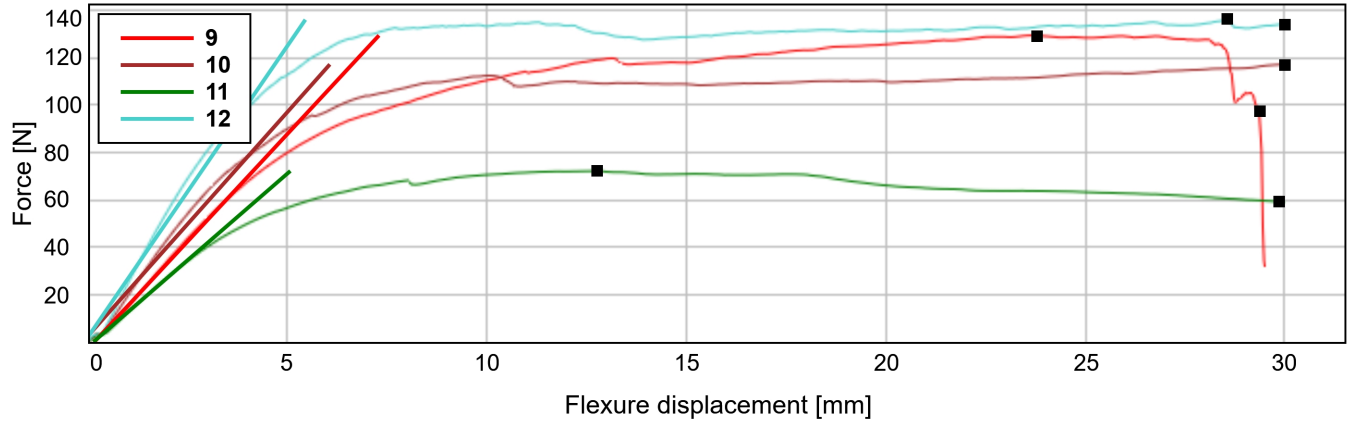
Specimen 1 to 4



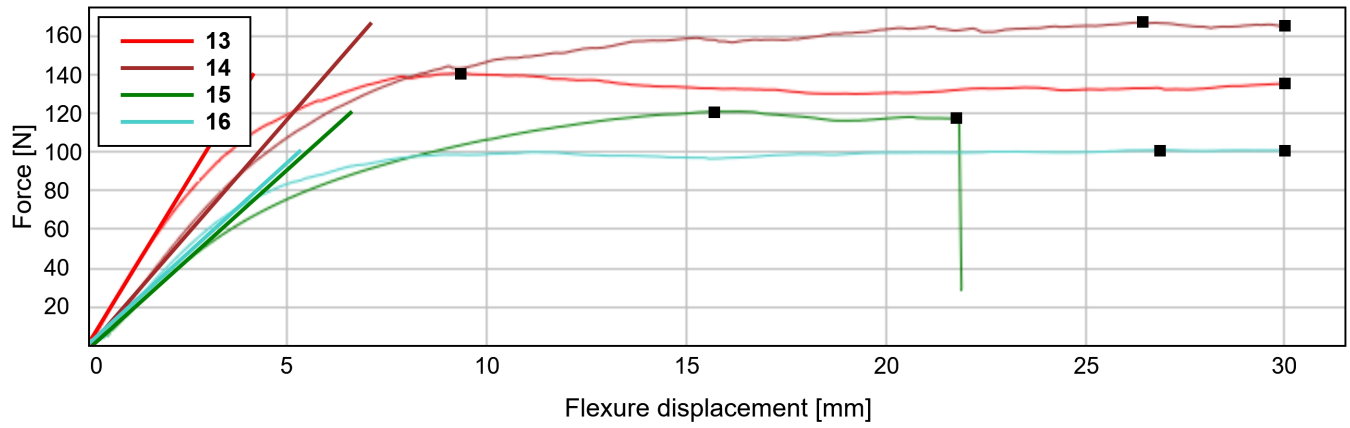
Specimen 5 to 8



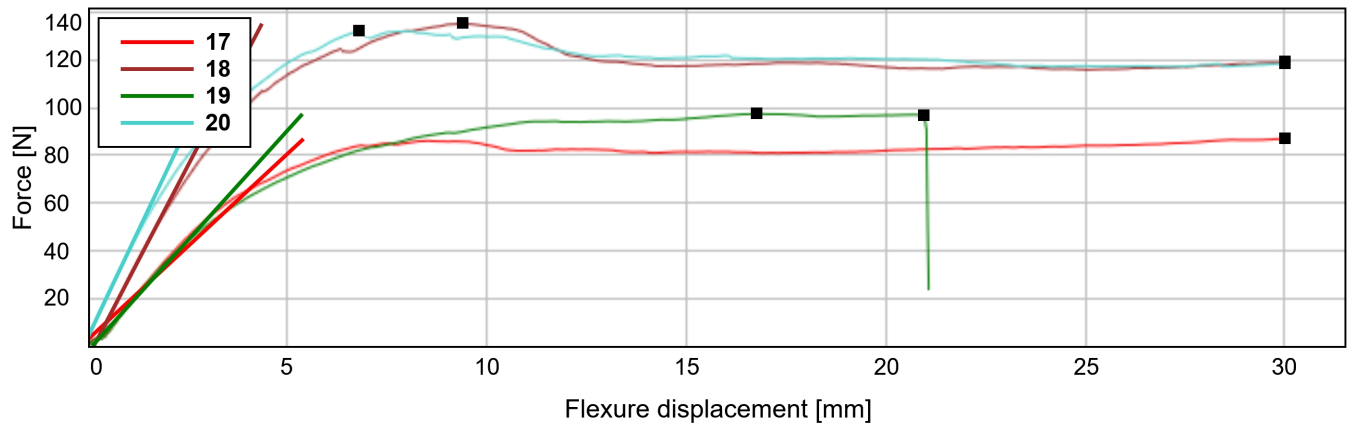
Specimen 9 to 12



Specimen 13 to 16



Specimen 17 to 20



	Genotype	Plant Number	Plot Number
1	B73	6	351
2	B73	2	351
3	B73	3	351
4	B73	10	351

	Genotype	Plant Number	Plot Number
5	B73	5	351
6	B73	7	351
7	B73	1	351
8	B73	4	351
9	CML258	1	222
10	CML258	4	222
11	CML258	7	222
12	CML258	8	222
13	CML258	9	222
14	CML258	10	222
15	CML258	4	224
16	CML258	5	224
17	CML258	7	224
18	CML258	8	224
19	CML258	9	224
20	CML258	11	224

	Whorl Number (use field-based numbering - top down)	Root Sample Number	Vertical Specimen Diameter [mm]
1			19.40
2			17.91
3			19.91
4			20.22
5			21.79
6			20.97
7			21.00
8			20.34
9			21.23
10			21.39
11			18.25
12			22.41
13			22.30
14			23.52
15			21.20
16			20.31
17			20.27
18			21.90
19			20.44
20			21.72

	Horizontal Specimen Diameter [mm]	Specimen Length [mm]	Force at Break (Standard) [N]
1	22.69	300.00	61.92
2	21.52	300.00	48.20
3	22.32	300.00	59.92
4	23.30	300.00	67.63
5	25.54	300.00	99.59
6	24.86	300.00	87.48
7	23.48	300.00	94.62
8	23.78	300.00	66.10
9	24.33	300.00	97.40
10	24.34	300.00	117.30
11	20.58	300.00	59.35
12	26.70	300.00	134.29
13	26.68	300.00	135.58
14	26.21	300.00	165.50
15	24.05	300.00	117.47
16	23.69	300.00	100.89
17	22.62	300.00	86.92
18	25.64	300.00	119.10
19	22.04	300.00	96.62
20	25.21	300.00	118.48

	Displacement at Break (Standard) [mm]	Flexure displacement at Break (Standard) [mm]	Maximum Force [N]
1	33.87	29.87	133.95
2	36.83	29.87	96.99
3	35.11	29.88	116.91
4	34.95	29.87	123.79
5	33.22	29.87	177.09
6	34.21	29.87	149.41
7	34.71	30.00	120.87
8	34.24	29.87	133.64
9	32.40	29.36	129.52
10	33.37	30.00	117.30
11	36.07	29.87	72.34
12	32.81	30.00	136.16
13	31.08	30.00	140.87
14	32.41	30.00	167.09
15	26.47	21.75	121.12

	Displacement at Break (Standard) [mm]	Flexure displacement at Break (Standard) [mm]	Maximum Force [N]
16	33.83	30.00	101.10
17	35.22	30.00	86.92
18	32.79	30.00	135.17
19	25.80	20.93	97.37
20	32.28	30.00	132.09

	Flexure displacement at Maximum Force [mm]	Maximum Slope (Automatic) [N/mm]
1	8.33	38.12
2	7.97	30.21
3	7.32	37.10
4	9.08	36.01
5	8.36	46.88
6	9.17	41.50
7	10.22	31.84
8	7.25	38.37
9	23.78	18.11
10	30.00	18.89
11	12.77	14.61
12	28.58	24.55
13	9.33	33.74
14	26.42	23.71
15	15.72	18.62
16	26.87	18.83
17	30.00	15.53
18	9.41	32.01
19	16.76	18.44
20	6.81	35.26