

**Table S1.** Combined treatments mean for a KBG perennial ground cover system separated by year and hybrid. Normalized Emergence was calculated by aligning data to start on the same first emergence date for both planting depths.

Year	Hy7016CNVid	Size	Planting depths	Emergence	Normalized Emergence	Yield (Mg/ha)
			(cm)	Days after planting (DAP)	Days after planting (DAP)	
2019	7016CNV <sup>1</sup>	Bag <sup>2</sup>	3.18	18.81 a	18.81 a	10.51
			6.35	21.91 b	17.91 b	9.87
		Re-sized	3.18	19.08 a	19.08 a	11.12
			6.35	22.29 b	18.29 ab	10.33
		LSD (0.05)		0.8	0.8	2.66
2019	1197	Bag	3.18	19.72 b	19.72	10.61
			6.35	22.96 a	18.96	12.81
		Re-sized	3.18	19.41 b	19.41	12.63
			6.35	23.01 a	19.01	11.82
		LSD (0.05)		0.87	0.87	3.14
2020	7016CNV	Bag	3.18	16.35	16.35 ab	3.82
			6.35	16.97	15.97 ab	2.81
		Re-sized	3.18	17.42	17.42 a	3.56
			6.35	16.19	15.19 b	4.68
		LSD (0.05)		1.81	1.81	1.29
2020	1197	Bag	3.18	17.19 ab	17.19	4.80
			6.35	18.08 a	17.08	6.30
		Re-sized	3.18	16.52 b	16.52	6.45
			6.35	16.86 ab	15.86	6.54
		LSD (0.05)		1.5	1.5	3.29
2019 and 2020	Both	Combined	3.18	18.08 a	18.08 a	8.08
		Combined	6.35	19.78 b	17.28 b	8.29
		LSD (0.05)		1.2	0.78	1.88

<sup>1</sup>Same seed lot used in 2019 and 2020

<sup>2</sup>Seed that was received in the bag

Different letters indicate a significant difference among treatments

**Table S2.** Combined treatments means for a bare soil system separated by year and hybrid. Normalized Emergence was calculated by aligning data to start on the same first emergence date for both planting depths.

Year	Hybrid	Size	Planting depths	Emergence	Normalized Emergence	Yield (Mg/ha)
			(cm)	Days after planting (DAP)	Days after planting (DAP)	
2019	7016CNV <sup>1</sup>	Bag <sup>2</sup>	3.18	19.31 b	19.31 a	14.96 a
			6.35	22.19 a	18.19 b	14.84 a
		Re-sized	3.18	19.33 b	19.33 a	13.41 b
			6.35	22.52 a	18.52 b	14.08 ab
		LSD (0.05)		0.44	0.44	1.25
2019	1197	Bag	3.18	20.31 b	20.31 a	17.19
			6.35	23.22 a	19.22 b	17.04
		Re-sized	3.18	20.38 b	20.38 a	17.47
			6.35	23.58 a	19.58 b	16.87
		LSD (0.05)		0.71	0.71	2.81
2020	7016CNV	Bag	3.18	13.35 b	13.35	9.46

			6.35	13.84 ab	12.84	10.46
		Re-sized	3.18	13.15 b	13.15	10.98
			6.35	14.36 a	13.36	11.21
	LSD (0.05)			0.79	0.79	3.17
2020	1197	Bag	3.18	13.08 ab	13.08	12.24
			6.35	13.81 a	12.81	12.00
		Re-sized	3.18	12.70 b	12.70	12.58
			6.35	13.88 a	12.88	12.12
	LSD (0.05)			0.8	0.8	1.58
2019 and 2020	Both	Combined	3.18	16.45	16.45	13.54
	Both	Combined	6.35	18.42	15.92	13.58
	LSD (0.05)			2.08	1.68	1.49

<sup>1</sup>Same seed lot used in  
2019 and 2020

<sup>2</sup>Seed that was  
received in the bag

Different letters indicate a significant  
difference among treatments

**Table S3.** Means for combined planting depths in a KBG perennial ground cover system separated by year and hybrid. Normalized Emergence was calculated by aligning data to start on the same first emergence date for both planting depths.

Year	Hybrid	Size	Emergence Days after planting (DAP)	Normalized Emergence Days after planting (DAP)	Yield (Mg/ha)
2019	7016CNV	Bag	20.36	18.36 b	10.37
	1197		21.34	19.34 a	11.71
	7016CNV	Re-sized	20.69	18.69 ab	10.73
	1197		21.21	19.21 a	12.23
	LSD (0.05)		1.98	0.66	1.86
2020	7016CNV	Bag	16.66	16.16	3.70 c
	1197		17.64	17.14	5.55 ab
	7016CNV	Re-sized	16.72	16.15	4.20 bc
	1197		16.69	16.19	6.49 a
	LSD (0.05)		1.06	1.17	1.66
2019 and 2020	Both	Bag	19.00	17.75	7.83
	Both	Re-sized	18.89	17.60	8.55
	LSD (0.05)		1.29	0.81	1.86

Different letters indicate a significant difference among treatments

**Table S4.** Means for combined planting depths in a bare soil system separated by year and hybrid. Normalized Emergence was calculated by aligning data to start on the same first emergence date for both planting depths.

Year	Hybrid	Size	Emergence Days after planting (DAP)	Normalized Emergence Days after planting (DAP)	Yield (Mg/ha)
2019	7016CNV	Bag	20.75	18.75 b	14.90 b
	1197		21.76	19.76 a	17.12 a
	7016CNV	Re-sized	20.92	18.92 b	13.75 b
	1197		21.98	19.98 a	17.17 a
	LSD (0.05)		1.82	0.68	1.35
2020	7016CNV	Bag	13.59	13.09	9.96 b

	1197		13.45	12.95	12.12 a
	7016CNV	Re-sized	13.76	13.26	11.09 ab
	1197		13.29	12.79	12.35 a
	LSD (0.05)		0.74	0.52	1.67
2019 and 2020	Both	Bag	17.39	16.14	13.53
	Both	Re-sized	17.49	16.24	13.59
	LSD (0.05)		2.14	1.69	1.49
Different letters indicate a significant difference among treatments					