

**NDSU Research Extension Centers
Langdon, Carrington, Dickinson**

Hemp Variety Trials - 2019

Variety	LREC	CREC	DREC	Avg.	LREC	CREC	DREC	Avg	LREC	CREC	DREC	Avg	LREC	CREC	Avg
	Stand plants/ft ²				Pure live seed emergence %				Seedling Mortality %				Plant Height in.		
CRS-1	9.6	8.3	7.2	8.4	60	52	45	52	40	48	55	48	59	69	64
CFX-1	8.6	8.1	4.9	7.2	54	50	31	45	46	50	69	55	48	68	58
CFX-2	9.7	9.7	3.7	7.7	61	61	23	48	40	39	77	52	53	58	56
Grandi	13.0	8.3	4.3	8.5	82	52	27	54	19	48	73	47	45	60	52
Katani	9.7	8.2	5.0	7.6	61	51	31	48	39	49	69	52	41	56	48
Picolo	10.5	9.4	6.0	8.6	66	58	38	54	34	42	62	46	40	60	50
Canda	9.8	9.7	4.6	8.1	61	61	29	50	39	39	71	50	62	74	68
Joey	10.5	9.8	4.6	8.3	66	61	29	52	34	39	71	48	56	66	61
X-59	9.9	7.7	2.7	6.8	62	48	17	42	39	52	83	58	52	64	58
Cyclone V-1 ³	7.2	5.3	2.7	5.1	45	33	17	32	55	67	83	68	72	64	68
Cyclone V-1 TRT ¹	5.7	6.5	5.5	5.9	36	41	35	37	64	59	65	63	74	66	70
Anka ²	--	7.8	5.2	--	--	42	28	--	--	58	72	--	--	72	--
Anka TRT	--	8.1	4.6	--	--	43	25	--	--	57	75	--	--	78	--
Altair	12.5	9.8	6.4	9.6	73	56	37	55	28	44	63	45	68	70	69
Altair TRT	11.6	11.0	4.5	9.0	67	63	26	52	33	37	74	48	65	71	68
Rigel	9.0	7.6	4.1	6.9	69	57	31	52	32	43	69	48	68	74	71
Rigel TRT	9.4	7.2	4.1	6.9	71	54	31	52	29	46	69	48	69	74	72
Trial Mean	10.0	8.8	4.8	--	63.5	54.6	30	--	37	47.9	70	--	59	67.7	--
C.V. %	16.2	15.1	42.2	--	16.2	15.0	42.4	--	28.0	15.0	18.1	--	6.8	14.0	--
LSD 5%	2.3	1.9	2.9	--	14.7	11.6	18	--	14.6	11.6	18	--	5.8	13.5	--
LSD 10%	1.9	1.6	2.4	--	12.2	9.7	15	--	12.2	9.7	15	--	4.8	11.2	--

Planting Dates: LREC-May 28, CREC-May 28, DREC-May 29

Harvest Dates: LREC-Sept. 18, CREC-Sept. 16, DREC-Oct 8 - Cyclone, others Sept. 4

Previous Crop: LREC-Barley, CREC-Soybeans, DREC-Wheat

Target seeding rate was 16 Pure Live Seed(PLS)/ft² which includes 25% seed mortality. Anka, Altair and Rigel seeding rate was 19,17,and 13

PLS/ft² which includes 25% seed mortality due to late seed arrive and KWT and germination not completed until after seeding of the trials.

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Variety	LREC	CREC	DREC	Avg	LREC	CREC	DREC	Avg	LREC	DREC	AVG	LREC	CREC	DREC	Avg
	Test Weight lbs/bu				KWT g/1000				Oil %			Grain Yield lbs/a			
CRS-1	40.7	36.8	40.8	39.4	16.7	14.2	16.5	15.8	32.7	31.8	32.3	1400	966	744	1036
CFX-1	41.2	38.0	40.9	40.0	16.3	15.7	16.2	16.1	33.0	32.5	32.8	1282	820	684	929
CFX-2	40.8	37.8	41.0	39.9	16.2	13.3	15.9	15.1	32.5	31.7	32.1	1361	877	722	986
Grandi	40.7	37.1	40.8	39.5	15.0	13.6	15.2	14.6	32.1	31.7	31.9	1256	843	653	917
Katani	41.2	36.8	40.9	39.6	14.1	15.4	14.4	14.6	32.6	31.1	31.9	1151	764	671	862
Picolo	41.0	36.4	40.9	39.4	14.3	14.6	14.5	14.5	32.3	31.1	31.7	1138	662	604	801
Canda	40.0	37.2	40.3	39.2	19.0	15.6	19.0	17.9	30.5	30.5	30.5	1361	904	897	1054
Joey	40.7	35.3	41.3	39.1	17.6	14.8	16.9	16.4	30.5	30.9	30.7	1190	855	785	944
X-59	40.6	37.3	40.8	39.6	16.0	14.1	16.4	15.5	30.0	29.1	29.5	1544	1051	891	1162
Cyclone V-1 ³	--	--	41.8	--	--	--	6.7	--	--	31.9	--	--	--	293	--
Cyclone V-1 TRT ¹	--	--	41.6	--	--	--	6.9	--	--	32.6	--	--	--	320	--
Anka ²	--	35.6	39.0	37.3	--	16.2	14.9	15.5	--	29.9	29.9	--	941	729	835
Anka TRT	--	34.6	39.6	37.1	--	11.3	15.4	13.3	--	29.9	29.9	--	930	736	833
Altair	38.1	34.9	39.8	37.6	15.5	13.1	15.6	14.7	30.4	30.6	30.5	1177	880	860	972
Altair TRT	38.5	35.5	39.8	37.9	16.2	13.5	15.9	15.2	31.1	30.4	30.7	1400	855	770	1008
Rigel	38.9	35.3	39.8	38.0	16.7	12.9	16.8	15.5	30.5	30.5	30.5	1256	820	804	960
Rigel TRT	39.0	34.4	39.5	37.6	16.7	13.8	16.8	15.8	31.1	31.0	31.0	1295	695	839	943
Trial Mean	40.1	36.2	40.1	--	16.2	14.2	13.9	--	31.5	31.0	--	1293	860	697	--
C.V. %	1.5	4.6	1.1	--	3.2	19.7	3.7	--	1.7	1.5	--	11.8	17.8	13.8	--
LSD 5%	0.9	2.4	0.6	--	0.7	4.0	0.8	--	0.8	0.7	--	218	218	136	--
LSD 10%	0.7	2.0	0.5	--	0.6	3.3	0.7	--	0.6	0.6	--	182	182	114	--

¹Varieties with a 'TRT' tag were treated with Metalaxyl + Ipconazole (3oz/100 lb seed) as a seed treatment. Other varieties received none.

²Anka was not tested at Langdon

³Cyclone did not reach maturity before a killing frost at Langdon and Carrington

Seed Sources: Legacy Hemp: X-59

Hemp Genetics International (HGI): CRS-1, CFX-1, CFX-2, Grandi, Katani, Picolo

Parkland Industrial Hemp Growers (PIHG): Canda, Joey

Horizon Hemp Seeds: Altair, Anka, Cyclone, Rigel