

2020 CBD Hemp Planting Date at Minot

Summary: The trial was set up as a randomized complete block design with 3 replications and planted with two experimental CBD hemp strains that were propagated from feminized seed and planted as 6 inch transplants or propagated as clones from a single mother plant. Clones were 1 to 4 inches tall when planted and many of these did not survive. Planting dates were staggered approximately 10 days apart. Growing conditions were generally mild (avg 64F) and dry (6.6") from June 1 through September 30. The trial was harvested on October 15. Individual plants were weighed for yield and approximately 10 inches of the terminal bud was collected and dried at 80F for 5 days to determine moisture content. *A sub-sample of this biomass was collected and will be analyzed for THC, CBD and total cannabinoid content when funds become available.* There was a lot of phenotypic variability within the feminized seed transplants as far as plant height and shape. This variability also resulted in inconsistent yields between plants within plots, however, combined analysis showed a consistent decrease in dry plant weight with each delayed planting date. The data for transplant production would indicate significant advantages in biomass production with early planting dates vs. later planting dates. For clonal production, combined data analysis showed a trend, although not statistically significant, for biomass yields to incrementally increase with the first three planting dates followed by significant decreases on subsequent planting dates. In conclusion, it is logical, within reason, for a plant to accumulate biomass the longer it is allowed to grow and that is

Transplant Production

Planting Date	Plant Height	Total THC	Total CBD	Total Cannabinoids	Harvest Moisture	Dry Plant Weight	Dry Biomass
	inches	%	%	%	%	lbs/plant	lbs/A
May 12	66	--	--	--	59.6	4.65	8095
May 22	52	--	--	--	51.8	3.61	6281
June 2	73	--	--	--	66.0	2.99	5202
June 10	71	--	--	--	68.7	2.73	4761
June 22	68	--	--	--	66.0	1.72	3004
July 2	58	--	--	--	67.9	1.00	1749
Trial Mean	65	--	--	--	63.3	2.78	4849
C.V. %	19.0	--	--	--	14.7	34.6	34.6
LSD 0.05	15	--	--	--	11.1	1.15	1997

Clonal Production

Planting Date	Plant Height	Total THC	Total CBD	Total Cannabinoids	Harvest Moisture	Dry Plant Weight	Dry Biomass
	inches	%	%	%	%	lbs/plant	lbs/A
May 12	52	--	--	--	69.7	3.39	5910
May 22	67	--	--	--	55.3	3.92	6831
June 2	67	--	--	--	52.9	4.23	7375
June 10	53	--	--	--	64.6	1.69	2953
June 22	45	--	--	--	63.0	1.46	2542
July 2	32	--	--	--	70.3	0.49	858
Trial Mean	55	--	--	--	62.1	2.90	5048
C.V. %	14.1	--	--	--	11.6	29.7	29.7
LSD 0.05	10	--	--	--	8.9	1.06	1841

Planting Rate: 5' rows and 5' between plants (1742 plants/A)

Production System: Outdoor. No supplemental irrigation.

Weed Control: Clipping (lawn mower)