



T-ZERO

POTENCY REPORT

MEASURING POTENCY:

TWISTER T-ZERO VS HAND TRIMMING



Twister T-Zero Compared to Hand Trimming The main purpose of the lab tests was to assess THC & CBD potency when trimming with the T-ZERO compared to hand trimming. To provide variety, four different cultivars were tested at four different times to provide a better picture. The results are obtained using two independent testing labs, Caro Analytical and MB Labs Ltd.

- The T-ZERO tested between 23.30% - 17.20% THC potency
- There is only a -0.6% - 1.9% change in THC potency when harvesting with the Twister T-ZERO compared to hand trimming

Note, T-ZERO is **192x faster and cost-effective** in personnel than hand trimming.

Lab #1: MB Labs: White Widow (dry flower) // 2020

	Total THC	Potency Difference	Total CBD	Potency Difference
Hand Trim Flower	18.60%		0.038%	
T-ZERO Trim Flower	18.30%	0.3 -	0.043%	.005 +

Lab #2: MB Labs: Northern Lights x Hash (dry flower) // 2020

	Total THC	Potency Difference	Total CBD	Potency Difference
Hand Trim Flower	17.80%		0.030%	
T-ZERO Trim Flower	17.20%	0.6 -	0.037%	.007 +

Lab #3: MB Labs: (dry flower) // 2018

	Total THC	Potency Difference	Total CBD	Potency Difference
Hand Trim Flower	23.50%		0.050%	
T-ZERO Trim Flower Pass 1	19.70%	3.8 -	0.045%	0.005 -
T-ZERO Trim Flower Pass 2	21.60%	1.9 -	0.050%	0
T-ZERO Trim Flower	29.10%	5.6 +	0.064%	.014 +

Lab #4: Caro Analytical: (dry flower) // 2018

	Total THC	Potency Difference	Total CBD	Potency Difference
Hand Trim Flower	24.90%		<0.188	
T-ZERO Trim Flower	23.30%	1.6 -	<0.188	0
T-ZERO Collected Trim	24.40%	0.5 +	<0.188	0
T-ZERO Kief	40.50%	15.6 +	<0.188	0

Samples:

- 1) White Widow - Hand Trimmed
- 2) White Widow - BatchOne Trimmed
- 3) White Widow - T-ZERO Trimmed

Date: May 21, 2020
 Source: Cannabis
 Type: Flower
 No. of Samples: 6
 Arrival Temp: 19.6°C

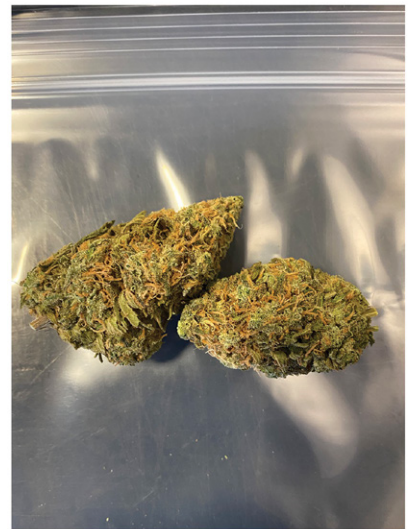
	(%)					
Cannabinoids	Sample 1	Sample 2	Sample 3	Blank	Recovery	S ₀
△ ⁹ - THC	1.56	1.56	1.55	ND	100	0.001
△ ⁹ - THC Acid	19.5	21.7	19.1	ND	99.9	0.001
Total THC*	18.6	20.6	18.3			
△ ⁸ - THC	ND	ND	ND	ND	102	0.001
△ ⁸ - THC Acid	ND	ND	ND	ND	N/A	N/A
Cannabidiol (CBD)	ND	ND	ND	ND	100.0	0.001
Cannabidiol Acid	0.043	0.045	0.049	ND	100	0.001
Total CBD **	0.038	0.040	0.043			
Cannabinol (CBN)	ND	ND	ND	ND	100	0.001
Cannabinol Acid	0.031	0.032	0.036	ND	101	0.001
Moisture	7.21	8.12	7.40			



WHITE WIDOW
 Hand trimmed



WHITE WIDOW
 BatchOne Trim



WHITE WIDOW
 T-Zero Trim

Samples:

- 4) Northern Lights x Hash - Hand Trimmed
- 5) Northern Lights x Hash - BatchOne Trimmed
- 6) Northern Lights x Hash - T-ZERO Trimmed

Date: May 21, 2020
Source: Cannabis
Type: Flower
No. of Samples: 6
Arrival Temp: 19.6°C

	(%)					
Cannabinoids	Sample 4	Sample 5	Sample 6	Blank	Recovery	S ₀
Δ ⁹ - THC	0.543	0.603	0.718	ND	100	0.001
Δ ⁹ - THC Acid	19.7	20.4	18.7	ND	99.9	0.001
Total THC*	17.8	18.5	17.2			
Δ ⁸ - THC	ND	ND	ND	ND	102	0.001
Δ ⁸ - THC Acid	ND	ND	ND	ND	N/A	N/A
Cannabidiol (CBD)	ND	ND	ND	ND	100.0	0.001
Cannabidiol Acid	0.034	0.047	0.042	ND	100	0.001
Total CBD **	0.030	0.041	0.037			
Cannabinol (CBN)	ND	ND	ND	ND	100	0.001
Cannabinol Acid	0.044	0.048	0.040	ND	101	0.001
Moisture	6.89	7.74	8.27			

Methods: Solvent extraction; measured by UPLC-UV, tandem MS, P.I. 1.14 & based on USP monography 29



NORTHERN LIGHTS x HASH
Hand trimmed



NORTHERN LIGHTS x HASH
BatchOne Trim



NORTHERN LIGHTS x HASH
T-Zero Trim

Samples:

- 1) Hand Trimmed Flower
- 2) T-ZERO Dry Trim Pass 1
- 3) T-ZERO Dry Trim Pass 2
- 4) T-ZERO Dry Trim

Date: Dec 3, 2018
 Source: Cannabis
 Type: Other
 No. of Samples: 4
 Arrival Temp: 21.0°C

(%)							
Cannabinoids	Sample 1	Sample 2	Sample 3	Sample 4	Blank	Recovery	S ₀
△ ⁹ - THC	0.245	0.190	0.214	0.470	ND	99.8	0.001
△ ⁹ - THC Acid	23.5	19.7	21.6	29.1	ND	98.1	0.001
△ ⁸ - THC	ND	ND	ND	ND	ND	95.8	0.001
△ ⁸ - THC Acid	ND	ND	ND	ND	ND	N/A	N/A
Cannabidiol (CBD)	ND	ND	ND	ND	ND	99.2	0.001
Cannabidiol Acid	0.050	0.045	0.050	0.064	ND	99.3	0.001
Cannabinol (CBN)	ND	ND	ND	ND	ND	99.1	0.001
Cannabinoil Acid	0.060	0.035	0.040	0.044	ND	99.1	0.001
Moisture	7.57	7.59	8.12	9.46			

Samples:

- 1) Lot 2 Hand Trim
- 2) Lot 2 T-ZERO Dry
- 3) Lot 2 Trim
- 4) Lot 2 Kief

Date: Dec 3, 2018
 Source: Cannabis
 Type: Other
 No. of Samples: 4
 Arrival Temp: 21.0°C

(%)							
Cannabinoids	Sample 1	Sample 2	Sample 3	Sample 4	Blank	Recovery	S ₀
△ ⁹ - THC	0.190	0.230	0.430	0.650	ND	99.8	0.001
△ ⁹ - THC Acid	19.8	19.2	26.1	48.1	ND	98.1	0.001
△ ⁸ - THC	ND	ND	ND	ND	ND	95.8	0.001
△ ⁸ - THC Acid	ND	ND	ND	ND	ND	N/A	N/A
Cannabidiol (CBD)	ND	ND	ND	ND	ND	99.2	0.001
Cannabidiol Acid	0.045	0.045	0.060	0.090	ND	99.3	0.001
Cannabinol (CBN)	ND	ND	ND	ND	ND	99.1	0.001
Cannabinoil Acid	0.030	0.030	0.040	0.070	ND	99.1	0.001
Moisture	8.28	8.11	8.85	7.94			

**Sample 1 - Hand Trim Flower (8120618-01) | Matrix:
Cannabis Dry Flower | Sampled: 2018-12-0113:00**

Calculated Parameters

Analyte	Result	RL Units	Analyze	Qualifier
Total CBD	0.00	% (wt/wt)	N/A	
Total THC	24.9	% (wt/wt)	N/A	

Potency

Analyte	Result	RL Units	Analyze	Qualifier
Cannabidiolic Acid (CBDA)	< 0.100	0.100 % (wt/wt)	2018-12-13	
Cannabidiol (CBD)	< 0.100	0.100 % (wt/wt)	2018-12-13	
Cannabinol (CBN)	< 0.100	0.100 % (wt/wt)	2018-12-13	
delta9-THC	0.330	0.100 % (wt/wt)	2018-12-13	
Tetrahydrocannabinolic Acid (THCA)	28.0	0.500 % (wt/wt)	2018-12-13	

**Sample 2 -T-Zero Trim Flower (8120618-0 2) | Matrix:
Cannabis Dry Flower | Sampled: 2018-12-0113:00**

Calculated Parameters

Analyte	Result	RL Units	Analyze	Qualifier
Total CBD	0.00	% (wt/wt)	N/A	
Total THC	23.3	% (wt/wt)	N/A	

Potency

Analyte	Result	RL Units	Analyze	Qualifier
Cannabidiolic Acid (CBDA)	< 0.100	0.100 % (wt/wt)	2018-12-13	
Cannabidiol (CBD)	< 0.100	0.100 % (wt/wt)	2018-12-13	
Cannabinol (CBN)	< 0.100	0.100 % (wt/wt)	2018-12-13	
delta9-THC	0.397	0.100 % (wt/wt)	2018-12-13	
Tetrahydrocannabinolic Acid (THCA)	26.1	0.500 % (wt/wt)	2018-12-13	

**Sample 3 -T -Zero Collected Trim (8120618-0 3) I Matrix:
Cannabis Dry Flower I Sampled: 2018-12-01 13:00**

Calculated Parameters

Analyte	Result	RL Units	Analyze	Qualifier
Total CBD	0.00	% (wt/wt)	N/A	
Total THC	24.4	% (wt/wt)	N/A	

Potency

Analyte	Result	RL Units	Analyze	Qualifier
Cannabidiolic Acid (CBDA)	< 0.100	0.100 % (wt/wt)	2018-12-13	
Cannabidiol (CBD)	< 0.100	0.100 % (wt/wt)	2018-12-13	
Cannabinol (CBN)	< 0.100	0.100 % (wt/wt)	2018-12-13	
delta9-THC	0.520	0.100 % (wt/wt)	2018-12-13	
Tetrahydrocannabinolic Acid (THCA)	27.2	0.500 % (wt/wt)	2018-12-13	

**Sample 4 -T -Zero Kief (8120618-04) I Matrix:
Cannabis Dry Flower I Sampled: 2018-12-01 13:00**

Calculated Parameters

Analyte	Result	RL Units	Analyze	Qualifier
Total CBD	0.00	% (wt/wt)	N/A	
Total THC	40.5	% (wt/wt)	N/A	

Potency

Analyte	Result	RL Units	Analyze	Qualifier
Cannabidiolic Acid (CBDA)	< 0.100	0.100 % (wt/wt)	2018-12-13	
Cannabidiol (CBD)	< 0.100	0.100 % (wt/wt)	2018-12-13	
Cannabinol (CBN)	< 0.100	0.100 % (wt/wt)	2018-12-13	
delta9-THC	0.733	0.100 % (wt/wt)	2018-12-13	
Tetrahydrocannabinolic Acid (THCA)	45.3	1.00 % (wt/wt)	2018-12-13	