# **BIO 520 STUDY**

Report: July 14, 2019 Grow conducted in Michigan early 2019

## THE SET UP

The grow room had 72 pants and 21 lights. 9 rows of plants. 5 Strains of plants, GG#4, Bobby Johnson (BJ), Sour Diesel, Sherbet, Cherry Pie.

At the end of each row, we had a plant that did not receive any Bio520 for the round. So this means 4 of the 5 stains had 2 plants that did not receive the Bio520. GG#4 was the only strain that only had one plant not to receive the Bio. The end row plants all had nice direct light, and further we choose some more healthy plants to not receive the bio, just to give them a better fighting chance.

We also used a triple trellis netting structure to allow us to fan out the plants and control them as needed.

The amount of Bio520 was just 1mil per gallon for every feeding. We used general ProMix for our medium. We also used a full nutrient line of GH.

The plants started receiving the Bio after they were transferred from their solo cups to 7-gallon fabric pots.

While we did not keep regular records of our previous grows, we consistently yielded around 36lb per crop.

Our exact setup is immaterial. What is important is that this is the setup we used for the previous 4 grow rounds, with Bio being the 5<sup>th</sup>.

We vegged about the same time as we normally do. We probably could have flowered earlier but what would be the point? Veg lasted approximately 6 weeks, keeping in mind we had plants that were already 18 inches in height as we transplanted.

Around the second week of flower, it became overly obvious that the front row plants were not growing as large as the rest of the plants. This was across the board.

We also came across a nasty spider mite infestation in the last 3 weeks of flower. We used Bio520 as a foyer to no avail, however only at 1mil a gallon when I learned later that 1mil is for nutrient mix, and for foyer for pests it should have easily been 5mil a gallon.

While we were unhappy with the mites, the irony is this helped for Bio520. We cannot say for sure, but the plants did not stress out much over the mites. The pests were limited to about 1/3 of the room and we did the laborious and only marginal effective work of continuing to de-web and scrap or pull leaves to slow them down. Three people were working the room against the pests twice a day.

## **RESULTS**

We yielded approximately 48lb. So, this is well above the 36 we normally yield. 33.33333333333333% to be precise. However, considering that 9 plants did not receive any bio the 33.3% is actually low. However, the exact math is making my head hurt. This was especially surprising because of the pests. The ultimate product was well within tolerances (some dank fire).

The 9 plants with no BIO520 yielded approximately 0.45lb per plant and the Bio'd plants yielded approximately 0.7lb per plant.

Pulling the end row plants apart from the other plans was challenging but manageable, and we were committed to that so we could know the difference between the plants. We trimmed non-Bio plants separately. The rest of the plants were separated into strains. Otherwise, they were all cut down together branches at a time getting them all mixed together.

We did a hybrid trim where we hand trimmed some of the nicest buds, but mostly we machine trimmed using a Centurion. So, yields could have been even higher if we hand trimmed, however for this experiment that was immaterial as this trimming process was the same as the several rounds before.

Suffice to say we will be using BIO520 again.

## K TEST RESULTS Cherry Pie

#### Flower Cherry Pie

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Potency Profile

Total THC = THCa \* 0.877 + d9-THC Total CBD = CBDa \* 0.877 + CBD LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory.

## Footnotes for potency results

PDFs

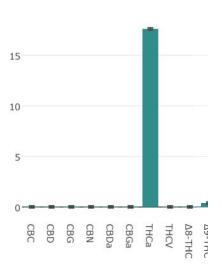
1804PSI0294.06256 - - Cherry Pie.pdf

Photos





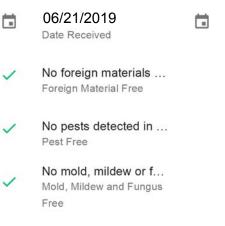
Cannabinoid     Amount     Uncertaint       CBC     0.01 %     ± 0.10       CBD     0.01 %     ± 0.10       CBG     0.01 %     ± 0.10       CBQ     0.01 %     ± 0.10       CBN     0.01 %     ± 0.10       CBDa     0.01 %     ± 0.10       CBGa     0.01 %     ± 0.10       CHCa     17.61     ± 0.10       THC4     0.01 %     ± 0.10       Δ8-THC     0.01 %     ± 0.10			
CBD     0.01 %     ± 0.10       CBG     0.01 %     ± 0.10       CBN     0.01 %     ± 0.10       CBDa     0.01 %     ± 0.10       CBGa     0.01 %     ± 0.10       CBGa     0.01 %     ± 0.10       THCa     17.61 %     ± 0.10       THCV     0.01 %     ± 0.10       Δ8-THC     0.01 %     ± 0.10	Cannabinoid	Amount	Uncertainty
CBG   0.01 % ± 0.10     CBN   0.01 % ± 0.10     CBDa   0.01 % ± 0.10     CBGa   0.01 % ± 0.10     THCa   17.61 ± 0.10     THCV   0.01 % ± 0.10     Δ8-THC   0.01 % ± 0.10	СВС	0.01 %	± 0.10
CBN   0.01 % ± 0.10     CBDa   0.01 % ± 0.10     CBGa   0.01 % ± 0.10     THCa   17.61 ± 0.10     THCV   0.01 % ± 0.10     Δ8-THC   0.01 % ± 0.10	CBD	0.01 %	± 0.10
CBDa   0.01 % ± 0.10     CBGa   0.01 % ± 0.10     THCa   17.61 ± 0.10     THCV   0.01 % ± 0.10     Δ8-THC   0.01 % ± 0.10	CBG	0.01 %	± 0.10
CBGa   0.01 % ± 0.10     THCa   17.61 % ± 0.10     THCV   0.01 % ± 0.10     Δ8-THC   0.01 % ± 0.10	CBN	0.01 %	± 0.10
THCa 17.61 % ± 0.10   THCV 0.01 % ± 0.10   Δ8-THC 0.01 % ± 0.10	CBDa	0.01 %	± 0.10
THCV 0.01 % ± 0.10   Δ8-THC 0.01 % ± 0.10	CBGa	0.01 %	± 0.10
Δ8-THC 0.01 % ± 0.10	THCa	17.61 %	± 0.10
	THCV	0.01 %	± 0.10
A9-THC 0.38 % + 0.10	∆8-THC	0.01 %	± 0.10
20-110 0.00 /0 10.10	Δ9-THC	0.38 %	± 0.10
Moisture 10.10%		10.10%	



15.83%

Total THC

<LOQ Total CBD



06/25/2019 Date Tested

HPLC/DAD Method Used

1 of 2

#### TEST RESULTS Sherbert

#### Flower Sherbert

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#### Potency Profile

Total THC = THCa \* 0.877 + d9-THC Total CBD = CBDa \* 0.877 + CBD LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory.

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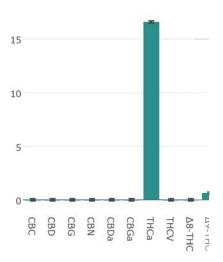
1804PSI0294.06255 -Sherbert.pdf

Photos





Cannabinoid	Amount	Uncertainty
CBC	0.01 %	± 0.10
CBD	0.01 %	± 0.10
CBG	0.01 %	± 0.10
CBN	0.01 %	± 0.10
CBDa	0.01 %	± 0.10
CBGa	0.01 %	± 0.10
THCa	16.59 %	± 0.10
THCV	0.01 %	± 0.10
Δ8-THC	0.01 %	± 0.10
Δ9-THC	0.63 %	± 0.10
Moisture Content	12.02%	



15.18%

Total THC

<LOQ Total CBD



06/21/2019 Date Received

- No foreign materials ... Foreign Material Free
- No pests detected in ... Pest Free
- No mold, mildew or f... Mold, Mildew and Fungus Free

#### 06/25/2019 Date Tested

HPLC/DAD Method Used

1 of 2