

Summary of Parameters - Plant Training Comparison Pilot Study Sept. 2019 – Jan. 2020

Summary

The Purpose of this Pilot Study was to compare the impact of training stress on plant yield. Careful consideration was taken in the design of the study in order to isolate the impact of each training technique used. To do this we controlled for every parameter possible, kept the inputs to a minimum, utilized well known products and employed common practices that can be easily reproduced. During the study we measured and recorded growth indicators (stem circumference, plant height, water consumption), inputs (nutrient ppm, PAR-Photosynthetic Active Radiation, medium quantity) and harvest data at the appropriate intervals. What follows is a breakdown of the parameters including our selection criteria/processes, rationale methodology and corresponding data. The accompanying Time Lapse Videos of the clone selection, tent, training sessions and harvest processing provide an unique and invaluable look at the entire study's process from start to finish.

Study Design/Parameters

(Selection, Rationale, Criteria, Methodology)

Clones or Seeds?

Clones were the utilized for the study rather than seeds. The reasoning for this is simple, control. Clones provide identical copies of the genetics to work with and also the characteristics/expression of the genetics are known. Seeds are like siblings and each is a little different and their characteristics are unknown for the most part.

*19 clones were taken off of 1 mother and placed in the cloner and 6 were selected to transfer from the cloner into the testing tent

Which Strain and Why?

Strain: Chemdog was selected as it is a well know strain, that roots well, is robust and tolerates all training techniques well, which was especially important for the plants receiving topping or supercropping

Which way to Clone and Why?

Cloning Technique: An aeroponic cloner (Turbo Klone) was chosen as it is considered standard practice in the industry largely due to how effective it is a quickly root cuttings. It also makes it very easy to see just how developed each cuttings roots are and to compare them for selection purposes.

How did you select your test subjects/plants?

Selection Part 1 - Day 16

Transferring Rooted Cuttings from Aero Cloner to Soilless Mix

Parameters for Selecting 6 Chem Dog Cuttings from 19

6 Rooted Cuttings selected based on their Similarity in Size & Vigor using

Observable Stem Length

Observable Stem Diameter

Observable amount of Shoot Growth

Observable amount of Root Growth

Each Cutting Given a # of 1-6

Plants watered to Saturation/Runoff

Plants will Spend Days 17-22 Hardening Off and Transitioning from

Aeroponics to Soilless (Peat + 25-30% Perlite Mix) Lucky Dog from Fox Farms

Just Prior to Transplant #2

Selection Part 2 - Day 35

4 Plants out of 6 will be selected based on Visual Inspection & Measured Parameters

Vigor - Rapid Plant Growth, Perky Upward Angled Leaf, Robust "Velvet Like" Trunk/Branches, Absence of Pests/Disease/Deficiency

Color - Bright Green Stems/Leaf transitioning to Darker Green

Height - More about matching plant/technique so that all plants are close to the same height after training (i.e. the tallest plant was topped, and the second tallest was super cropped)

Stem Diameter - Looking for same stem circumference at 2" off Medium

Drink Rate - Rate/QTY(in grams) of Wet & Dry Cycling (#of Days/hrs between waterings) By weighing plants daily, including before and after waterings or adding of soft wire, stakes etc.

During Transplant #2

Medium – Measures were taken to ensure equal amounts of medium for each test subject.

Equal Amount of Lucky Dog Medium in each container

Each of the 4 - 2 gallon pots were prepared with 1400g of medium which included a place holding Pint that would be removed prior to transplant

Each Pot was then watered in until saturation & runoff occurred. Each Pot weighed within 10grams of each other after runoff

How did you Set Up the Grow Space for Testing?

Tent: 4x4 Gorilla Grow Tent allowed for each plant to have enough (2x2) space to grow in without any shading from the other test subjects and were placed equidistant from the center of the light fixture. A PAR meter was used throughout the study to ensure that each plant was given equal amounts of light at each phase of growth.

Light: 315 CMH An Industry standard with a central/single bulb made for simple set up to ensure even light distribution to each plant.

*A PAR meter was used throughout the study to ensure that each plant was given equal amounts of light at each phase of growth.

4000K Bulb used through veg and the 1st week of flower

3400K Bulb used for the weeks 2-8 of flower.

Temperature/Humidity: Controlled with a 6" exhaust fan set to low on a speed idler/rheostat. It was run continuously throughout the test and the air circulated to and from the same temp/humidity controlled room. I find this to be the simplest way to maintain stable conditions in grow tents which are very prone to temp/humidity spikes

What Method of Grow?

We selected a very simple/common method of Hydroponics know as Run To Waste that has been used in Cannabis Cultivation for decades. This involves the use of a soilless medium where the nutrients are delivered into the top of the medium until approximately 20% of it runs out the bottom of the pot. This keeps the medium from becoming too built up with salts (to avoid nutrient lockout) by always flushing out a bit each time you water/feed.

Which Nutrient Line?

I chose to run Dominion Organics as it is complete Nutrient line that I have used for years that works very well with Run To Waste Hydro Set Ups. Almost any nutrient line up would work well with this system. I also added a bit of Hydro Guard & Recharge Microbial Inoculant to minimize bad bacteria and maximize the good bacteria and fungi. Reverse Osmosis Water was used throughout.

What was the Feeding Schedule Used & Why?

We approached the feeding using the common practice of starting out at a low ppm (TDS) <500ppm and slowly increased to 1000ppm by the end of Veg with one Flush of <300ppm to prevent nutrient/salt build up in the medium. During Flower we gradually increased ppm from 1000 up to 1300 over 5 weeks and then began to taper back down over the final weeks finishing with a week of 0ppm prior to harvest. We used a slightly more aggressive feeding regimen in order to push the plants to the higher end of ppm spectrum to observe if there were indicators of overfeeding that could be linked to their training technique. A minimum of 20% Run Off was maintained every feeding/watering throughout the entire cycle.

Why & How did you use Water Data Collection?

Beginning on Day 29

Through experience we have observed how plants kept in the same environment with consistent environmental controls, develop a rhythm of water consumption that increases in pace as the plant grows and the roots colonize the growing medium. For many years we have used this rhythm to time out when our roots have reached the capacity of their container and are ready for transplanting. Normally we do not weigh our plants daily (or at all) but in order to apply this in a controlled manner that could collect data we devised a method to measure & track how much each plant subject is "drinking" each day.

The purpose of the water data collection was to monitor the establishment and growth rate of the root zone. Our purpose was 2 fold. First was to see which 4 of the 6 subjects had the most equally developed root system so we could choose the most evenly matched 4 plants to keep variability to a

minimum. Second was to track the plants as they developed during vegetative growth and training to see if there were any correlations between the training technique used and an increase or decrease in water consumption.

The process is simple:

Each Plant/Subject was weighed Prior to Watering and immediately after runoff ceased as well as each day in between watering.

The differentials in weight from day to day indicate the amount “drank” or how much water they “held” after watering. By conducting daily weighing of each subject over time we were able to collect data that revealed consistent patterns of wet & dry cycles that informed our selection process through comparing their weights differentials. Also the addition of any weight to the plant in the form of stake, spring, soft tie etc was measured before and after.

How was the training decided on/deployed?

We decided to employ the most frequently used and well known training techniques for cannabis (Low Stress Training, Topping & Super Cropping) to compare the OG Spring method to. We also wanted to keep the number of test subjects to 4 so that each of them would receive the exact same environmental factors and space in a 4x4 tent and especially the same exposure to the light source. It also worked out well that there were 2 High Stress Training and 2 Low Stress Training techniques in the study to represent the two main types of training approaches used by growers.

In order to grow the plant’s canopy to size for flower there is often more training required after the first training session. We decided that we would only employ a single topping & super cropping event and that all other follow up training for all plants would be LST tie downs and Bending. That way we could isolate the single training event as the single variable for the study. After all this study is all about investigating and comparing the impacts of training stress on plant yield and if we were to do multiple toppings or super cropping to control canopy we felt that the results would be skewed more and more in favor of the LST techniques. We also decided to go for 9 tops

so that each plant's resources were divided up and distributed to the same number of branches and also to keep canopy heights between subjects similar.

Selection & Assigning Training Techniques

Plant # / Training Technique

- 1 - Low Stress Training
- 2 - Topping
- 5 - Super Cropping
- 6 - OG Spring

Although the selected plants were all very close in size and vigor at the point of selection, each plant was given final consideration as to which would be the best candidate for a particular training technique. Through observation of each plants overall structure, including it's: Height, Branching, Internode Length, Flexibility, we were able to make good match ups so that each training technique had its best case scenario.

Day 38

Training Day

All Plants were trained according to their assigned training technique: Low Stress Training, Topping, Super Cropping & OG Spring

All plants were watered prior to training

All plants were trained to have 9 Tops going into flower

All plants were trained to be approximately the same height after training

All plants were checked for PAR light levels at the center of their upper canopy level prior to and after training to make sure each plant was receiving equal amounts of light as the 3 others in the tent.

Day 44

Training Day #2

Each Plant was follow up Trained with LST Techniques using Tie Downs.

Each Plant had select branches pulled out and down toward the rim of the pot where a ¼" hole had been drilled for tying down to. (5 holes were drilled in the pot rim, spaced evenly around the circumference, are available for anchoring to. This opens up the plant while at the same time shaping &

working on evening out the height of the tops. This is a gradual process whereby dominant tops are brought down to the height of less dominant tops over time. Each plant's canopy was brought to approximately 8-1/2" to 9" off the medium.

When placed back in the Tent, Plants were spaced a bit further apart than they had been to allow for all the new growth and so that they would not shade or compete with one another. Plants were rotated 180 Degrees from their previous positioning so that both sides of each plant receive equal lighting which helps to balance/fill out plants better.

Day 49

Training Day #3 &

#1 Major Defoliation/shoot thinning of all plants and top selection

Each Plant was Trained with LST Techniques using Tie Downs.

Each Plant had select branches pulled out and down toward the rim of the pot where a 1/4" hole had been drilled for tying down to. Each plant's canopy was brought to approximately 10-1/2" to 12" off the medium

After selecting the number of tops on each plant that will be grown out, each Plant was thinned out removing lower fan leaves and shoots from all main branches.

Day 51

Training Day

Plants 1, 2 & 3 were all trained using LST Tie Downs & "Bows" (description below) to maintain canopy height and balance as well as to increase the number of tops(i.e. on plant #2/topped)

The LST Plant & Spring plant both already have 9 tops with all branches feeding off the main trunk. The Super Cropped & Topped Plant both have 7 main tops feeding off the main trunk. 2 more tops will be added to each of their canopies using LST Bows. (using a 5" piece of soft wire with a hook formed on each end used to bend over a top without injury- like a super crop without snapping).

The plant's canopies are all being maintained to end up at the same height with the same number of tops just before going into flower.

Day 60

The Day Before Flower Begins

FINAL CLEAN UP

Each Plant was cleaned up til there were no lateral shoots on any of the main branches so that only the top node cluster is left going into Flower.

Day 70

Day 9 of Flower

Install Trellis

How was Harvest Executed and Why?

Harvesting the plants involved cutting the base of the trunk and immediately weighing them to get a baseline measurement during the drying process. Following weigh in each whole plant was hung upside down in a dark room with temperature and humidity control and good air flow not blowing directly on the flowers. Each plant was weighed daily during the drying period and after 8 days the plants were weighed, then large leaf without or with very little resin was removed and the tops were separated their plant frame (trunk & branches) and everything was weighed and then the tops were placed in a brown paper bag overnight to continue drying. The following day the plants trunks and tops were weighed and recorded prior to the final measuring, bucking-up, trimming and weighing.

Harvest Yield Data (Hung Dried + Trimmed)

| TECHNIQUE | WEIGHT | PERCENTAGES/DIFFERENTIAL | | RANK |
|----------------|--------|--------------------------|----------|------|
| OG Spring | 54.91g | 100% | (-0.00%) | #1 |
| LST | 50.01g | 90% | (-10%) | #2 |
| Super Cropping | 48.96g | 88% | (-12%) | #3 |
| Topping | 47.36g | 84% | (-16%) | #4 |

Time Line - Plant Training Comparison Pilot Study

Start Date: September 27, 2019

End Date: January 27, 2020

Total # of Days: 122

Cloning

Day 1- 16 September 27 – October 12

Qty. of Cuttings 19

Strain: Chemdog

Clone Technique: 24 site Aero Cloner from Turbo Klone

Water Source Reverse Osmosis >20 ppm

Nutrients/Additives: Clonex/Clear Rez

PH: 5.6-6

Ppm: 250

Lighting: T5 24w 6500k

Lighting Schedule: 24hr

Light in PAR 100

Begin Hardening Off Transition

Day 16 Test Subject Selection and Transplant #1 October 12 – October 17

Qty. of Cuttings: 6

Medium: Lucky Dog by Fox Farms

Pot Size: 1 Pint

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B- ½ tsp. per gal.

Benefox -1 tsp. per gal.

B29 -½ tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor -½ tsp. per gal.

Cal-Mag -½ tsp. per gal

Recharge -½ tsp. per gal.

Micro Chip -½ ml per gal.

Hydroguard -2 ml per gal

PH – 6.0

PPM (TDS) – 450

Lighting: T5 72w 6500k

Lighting Schedule: 24hr
Light in PAR 120
Temp/Humidity 70 F/ 50-65% RH

Day 23

Tent Time Lapse Begins

Transfer to 4x4 Tent Gorilla Grow Tent

Plants receive 2nd Watering to Saturation/Runoff

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B- ½ tsp. per gal.

Benefox -1 tsp. per gal.

B29 -½ tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor -½ tsp. per gal.

Cal-Mag -½ tsp. per gal

Recharge -½ tsp. per gal.

Micro Chip -½ ml per gal.

PH – 6

PPM (TDS) – 500ppm

Lighting: 315w CMH Philips Master Color Bulb in Dpapillon fixture

Lighting Schedule: 18/6

Light PAR 168 (+or- 8) (Range of Readings from directly above Shoot Apical Meristem on each plant)

Temp/Humidity 70-80F/ 45-60% RH

Day 26

Plants receive 3rd Watering to Saturation/Runoff

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B- ½ tsp. per gal.

Benefox -1 tsp. per gal.

B29 -½ tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor -½ tsp. per gal.

Cal-Mag – $\frac{1}{2}$ tsp. per gal
Micro Chip – $\frac{1}{2}$ ml per gal.
PH – 6
PPM (TDS) – 500ppm
Lighting: 315w CMH Philips Master Color Bulb in D-Papillon Fixture
Lighting Schedule: 18/6
Light in PAR: 172 (+or- 8)
Temp/Humidity 70-80F/ 45-60% RH

Day 29

Plants receive 4th Watering to Saturation/Runoff
Water Source Reverse Osmosis >20 ppm
Nutrients: Dominion Organics
A/B- $\frac{1}{2}$ tsp. per gal.
Benefox -1 tsp. per gal.
B29 - $\frac{1}{2}$ tsp. per gal.
Root Rocket -2 ml per gal.
Carburetor – $\frac{1}{2}$ tsp. per gal.
Cal-Mag – $\frac{1}{2}$ tsp. per gal
Micro Chip – $\frac{1}{2}$ ml per gal.
PH – 6
PPM (TDS) – 650ppm
Lighting: 315w CMH Philips Master Color Bulb in D-Papillon Fixture
Lighting Schedule: 18/6
Light in PAR: 172 (+or- 8)
Temp/Humidity 70-80F/ 45-60% RH

Day 31

Plants receive 5th Watering to Saturation/Runoff
Water Source Reverse Osmosis >20 ppm
Nutrients: Dominion Organics
A/B- $\frac{1}{2}$ tsp. per gal.
Benefox -1 tsp. per gal.
B29 - $\frac{1}{2}$ tsp. per gal.
Root Rocket -2 ml per gal.
Carburetor – $\frac{1}{2}$ tsp. per gal.

Cal-Mag $-\frac{1}{2}$ tsp. per gal
Micro Chip $-\frac{1}{2}$ ml per gal.
PH – 6
PPM (TDS) – 650ppm
Lighting: 315w CMH Philips Master Color Bulb in D-Papillon Fixture
Lighting Schedule: 18/6
Light in PAR: 172 (+or- 8)
Temp/Humidity 70-80F/ 45-60% RH

Day 33

Plants receive 6th Watering to Saturation/Runoff
Water Source Reverse Osmosis >20 ppm
Nutrients: Dominion Organics
A/B- $\frac{3}{4}$ tsp. per gal.
Benefox -1 tsp. per gal.
B29 $\frac{3}{4}$ tsp. per gal.
Root Rocket -2 ml per gal.
Carburetor $\frac{3}{4}$ tsp. per gal.
Cal-Mag $\frac{3}{4}$ tsp. per gal
Micro Chip 1 ml per gal.
PH – 6
PPM (TDS) – 750ppm
Lighting: 315w CMH Philips Master Color Bulb in D-Papillon Fixture
Lighting Schedule: 18/6
Light in PAR: 197 (+or- 9)
Temp/Humidity 65-77F/ 45-60% RH

Transplant #2 (Pint to 2 Gallon)

Day 35

Medium: Lucky Dog
Final 4 Test Subjects

Water Source Reverse Osmosis >20 ppm
Nutrients: Dominion Organics
A/B-1 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1 tsp. per gal.

Cal-Mag 1 tsp. per gal

Recharge -1/2 tsp. per gal.

Micro Chip -1/2 ml per gal.

PH - 6

PPM (TDS) - 800

Lighting: 315w CMH Philips Master Color Bulb in D Papillon fixture

Lighting Schedule: 20/4 Light Schedule was extended to keep temps up

Light in PAR: 245 (+or- 7)

Temp/Humidity 68-77F / 45-60%RH

Day 38/39

Training Day

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B-1 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1 tsp. per gal.

Cal-Mag 1 tsp. per gal

Recharge -1/2 tsp. per gal.

Micro Chip -1/2 ml per gal.

PH - 6

PPM (TDS) - 800

Lighting: 315w CMH Philips Master Color Bulb in D Papillon fixture

Lighting Schedule: 20/4 Light Schedule was extended to keep temps up

Light in PAR: 280 (+or- 5)

Temp/Humidity 68-77F / 45-60%RH

Day 41

Each Plant was Watered approximately 250ml of Low PPM Nutrient Solution

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

Benefox -1 tsp. per gal.

B29 1 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1 tsp. per gal.

SLF 100 1 tsp. per gal

PH – 6

PPM (TDS) – 300

Lighting: 315w CMH Philips Master Color Bulb in D Papillon fixture

Lighting Schedule: 20/4 Light Schedule was extended to keep temps up

Light in PAR: 283 (+or- 4)

Temp/Humidity 68-78F / 45-60%RH

DAY 43

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B-1 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1 tsp. per gal.

Cal-Mag 1 tsp. per gal

Recharge -1/2 tsp. per gal.

Micro Chip -1/2 ml per gal.

SLF 100 – 1 tsp. per gal

PH – 6

PPM (TDS) – 800

Lighting: 315w CMH Philips Master Color Bulb in D Papillon fixture

Lighting Schedule: 20/4 Light Schedule was extended to keep temps up

Light in PAR: 280 (+or- 5)

Temp/Humidity 68-77F / 45-60%RH

Day 44

Training Day #2

Day 47

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B-1 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1 tsp. per gal.

Cal-Mag 1 tsp. per gal

Recharge -1/2 tsp. per gal.

Micro Chip -1/2 ml per gal.

SLF 100 - 1 tsp. per gal

PH - 6

PPM (TDS) - 800

Lighting: 315w CMH Philips Master Color Bulb in D Papillon fixture

Lighting Schedule: 20/4 Light Schedule was extended to keep temps up

Light in PAR: 290 (+or- 10)

Temp/Humidity 68-77F / 45-60%RH

Day 49

Training Day #3 &

#1 Major Defoliation/shoot thinning of all plants and top selection

Day 50

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B-1 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1 tsp. per gal.

Cal-Mag 1 tsp. per gal

Micro Chip -1/2 ml per gal.

SLF 100 - 1 tsp. per gal

PH - 6

PPM (TDS) - 800

Lighting: 315w CMH Philips Master Color Bulb in D Papillon fixture

Lighting Schedule: 20/4 Light Schedule was extended to keep temps up
Light in PAR: 290 (+or- 10)
Temp/Humidity 68-77F / 45-60%RH

Notes:

Plants were watered to runoff/saturation

Day 51

Training Day #4

Day 54

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B-1.5 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1.5 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1.5 tsp. per gal.

Cal-Mag 1.5 tsp. per gal

Recharge -1/2 tsp. per gal.

Micro Chip -1/2 ml per gal.

SLF 100 - 1 tsp. per gal

PH - 6

PPM (TDS) - 900

Lighting: 315w CMH Philips Master Color Bulb in D Papillon fixture

Lighting Schedule: 20/4 Light Schedule was extended to keep temps up

Light in PAR: 290 (+or- 10)

Temp/Humidity 68-77F / 45-60%RH

Day 57

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B-1.5 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1.5 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1.5 tsp. per gal.

Cal-Mag 1.5 tsp. per gal
Recharge - $\frac{1}{2}$ tsp. per gal.
Micro Chip - $\frac{1}{2}$ ml per gal.
SLF 100 - 1 tsp. per gal
PH - 6
PPM (TDS) - 900
Lighting: 315w CMH Philips Master Color Bulb in D Papillon fixture
Lighting Schedule: 20/4 Light Schedule was extended to keep temps up
Light in PAR: 300 (+or- 10)
Temp/Humidity 68-77F / 45-60%RH
Plants Watered to Saturation/Runoff

Day 60

Final Clean Up of Unwanted Shoots & Leaf

Water Source Reverse Osmosis >20 ppm
Nutrients: Dominion Organics
A/B-1.75 tsp. per gal.
Benefox -1 tsp. per gal.
B29 1.75 tsp. per gal.
Root Rocket -2 ml per gal.
Carburetor 1.75 tsp. per gal.
Cal-Mag 1.75 tsp. per gal
Recharge - $\frac{1}{4}$ tsp. per gal.
Micro Chip - $\frac{1}{2}$ ml per gal.
SLF 100 - 1 tsp. per gal
PH - 6
PPM (TDS) - 1000
Lighting: 315w CMH Philips Master Color Bulb in D Papillon fixture
Lighting Schedule: 20/4 Light Schedule was extended to keep temps up
Light in PAR: 340 (+or- 10)
Temp/Humidity 68-77F / 45-60%RH
Plants Watered to Saturation/Runoff

FLOWER BEGINS

Day 61

Lighting Schedule Changed to 11.5 hrs ON & 12.5 hrs OFF

Day 65

Day 4 of Flower

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B-2 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1.75 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1.75 tsp. per gal.

Cal-Mag 2 tsp. per gal

Recharge – ¼ tsp. per gal.

Micro Chip –½ ml per gal.

SLF 100 – 1 tsp. per gal

PH – 6

PPM (TDS) – 1100

Lighting: 315w CMH Philips Master Color Bulb in D Papillon fixture

Lighting Schedule: 11.5/12.5

Light in PAR: 340 (+or- 10)

Temp/Humidity 68-77F / 45-60%RH

Plants Watered to Saturation/Runoff

Day 69

Day 8 of Flower

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B-2 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1.75 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1.75 tsp. per gal.

Cal-Mag 2 tsp. per gal

Recharge – ¼ tsp. per gal.

Micro Chip –½ ml per gal.

SLF 100 – 1 tsp. per gal

PH – 6

PPM (TDS) – 1100

Lighting: 315w CMH Philips Master Color Bulb in D Papillon fixture

Lighting Schedule: 11.5/12.5

Light in PAR: 340 (+or- 10)

Temp/Humidity 68-77F / 45-60%RH

Plants Watered to Saturation/Runoff

Day 70

Day 9 of Flower

Install Trellis

Change out Bulb to 315w CMH Philips Green Power for Flower Spectrum

Day 72

Day 11 of Flower

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B-2 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1.75 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1.75 tsp. per gal.

Cal-Mag 2 tsp. per gal

Recharge – ¼ tsp. per gal.

Micro Chip –½ ml per gal.

Cannazym – 1 tsp. per gal

Brix Booster ¼ tsp per gal

Blossom Rocket ¼ tsp per gal

PH – 6

PPM (TDS) – 1250

Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture

Lighting Schedule: 11.5/12.5

Light in PAR: 340 (+or- 10)

Temp/Humidity 70-82F / 45-60%RH

Plants Watered to Saturation/Runoff

Day 75

Day 14 of Flower

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B-2 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1.75 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1.75 tsp. per gal.

Cal-Mag Force 1 tsp. per gal

Recharge – ¼ tsp. per gal.

Micro Chip –½ ml per gal.

SLF 100 – 1 tsp. per gal

Brix Booster ¼ tsp per gal

Blossom Rocket ¼ tsp per gal

PH – 6

PPM (TDS) – 1200

Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture

Lighting Schedule: 11.5/12.5

Light in PAR: 310 (+or- 10)

Temp/Humidity 70-82F / 45-55%RH

Plants Watered to Saturation/Runoff

Day 78

Day 17 of Flower

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A/B-2 tsp. per gal.

Benefox -1 tsp. per gal.

B29 1.75 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 1.75 tsp. per gal.

Cal-Mag Force 1 tsp. per gal

Recharge – ¼ tsp. per gal.

Micro Chip –½ ml per gal.

SLF 100 – 1 tsp. per gal

Brix Booster ¼ tsp per gal
Blossom Rocket ¼ tsp per gal
PH – 6
PPM (TDS) – 1250
Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture
Lighting Schedule: 11.5/12.5
Light in PAR: 310 (+or- 10)
Temp/Humidity 70-82F / 45-55%RH
Plants Watered to Saturation/Runoff

Day 81

Day 20

Water Source Reverse Osmosis >20 ppm
Nutrients: Dominion Organics
A/B-2 tsp. per gal.
B29 1.75 tsp. per gal.
Root Rocket -2 ml per gal.
Carburetor 1.75 tsp. per gal.
Cal-Mag Force 1 tsp. per gal
Recharge – ¼ tsp. per gal.
Micro Chip –½ ml per gal.
SLF 100 – 1 tsp. per gal
Brix Booster ¼ tsp per gal
Blossom Rocket ¼ tsp per gal
Buddwizer - 1 tsp. per gal
PH – 6
PPM (TDS) – 1300
Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture
Lighting Schedule: 11.5/12.5
Light in PAR: 310 (+or- 10)
Temp/Humidity 70-83F / 45-55%RH
Plants Watered to Saturation/Runoff

Day 83

Day 22 of Flower

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A-2 tsp. per gal.

B- 3 tsp. per gal.

B29 2 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 2 tsp. per gal.

Cal-Mag Force 1 tsp. per gal

Recharge – ¼ tsp. per gal.

Micro Chip –½ ml per gal.

SLF 100 – 1 tsp. per gal

Brix Booster ¼ tsp per gal

Blossom Rocket ¼ tsp per gal

Buddwizer – 1 tsp per gal.

PH – 6

PPM (TDS) – 1300

Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture

Lighting Schedule: 11.5/12.5

Light in PAR: 310 (+or- 10)

Temp/Humidity 70-83F / 45-55%RH

Plants Watered to Saturation/Runoff

Day 86

Day 25

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A-2 tsp. per gal.

B- 3 tsp. per gal.

B29 2 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 2 tsp. per gal.

Cal-Mag Force 1 tsp. per gal

Recharge – ¼ tsp. per gal.

Micro Chip –½ ml per gal.

SLF 100 – 1 tsp. per gal

Brix Booster ¼ tsp per gal

Blossom Rocket ¼ tsp per gal

Buddwizer – 1 tsp per gal.

PH – 6

PPM (TDS) – 1300

Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture

Lighting Schedule: 11.5/12.5

Light in PAR: 310 (+or- 10)

Temp/Humidity 70-83F / 45-55%RH

Plants Watered to Saturation/Runoff

Day 89

Flower Day 28

Defoliation

Removal of Light Blocking Fan Leaves (35g of leaf removed from each plant)

Checked PAR Levels

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A-2 tsp. per gal.

B- 3 tsp. per gal.

B29 2 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 2 tsp. per gal.

Cal-Mag Force 1 tsp. per gal

Recharge – ¼ tsp. per gal.

Micro Chip –½ ml per gal.

SLF 100 – 1 tsp. per gal

Brix Booster ¼ tsp per gal

Blossom Rocket ¼ tsp per gal

Buddwizer – 1 tsp per gal.

PH – 6

PPM (TDS) – 1300

Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture

Lighting Schedule: 11.5/12.5

Light in PAR: 290 (+or- 5)

Temp/Humidity 70-83F / 45-55%RH

Plants Watered to Saturation/Runoff

Day 92

Flower Day 31

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A-2 tsp. per gal.

B- 3 tsp. per gal.

B29 2 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 2 tsp. per gal.

Cal-Mag Force 1 tsp. per gal

Recharge – ¼ tsp. per gal.

Micro Chip –½ ml per gal.

SLF 100 – 1 tsp. per gal

Brix Booster ¼ tsp per gal

Blossom Rocket ¼ tsp per gal

Buddwizer – 1 tsp per gal.

PH – 6

PPM (TDS) – 1300

Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture

Lighting Schedule: 11.5/12.5

Light in PAR: 290 (+or- 5)

Temp/Humidity 70-83F / 45-55%RH

Plants Watered to Saturation/Runoff

Day 95

Flower Day 34

Water Source Reverse Osmosis >20 ppm

Nutrients: Dominion Organics

A-2 tsp. per gal.

B- 3 tsp. per gal.

B29 2 tsp. per gal.

Root Rocket -2 ml per gal.

Carburetor 2 tsp. per gal.

Cal-Mag Force 1 tsp. per gal

Recharge – ¼ tsp. per gal.

Micro Chip –½ ml per gal.

SLF 100 – 1 tsp. per gal
Brix Booster ¼ tsp per gal
Blossom Rocket ¼ tsp per gal
Buddwizer – 1 tsp per gal.
PH – 6
PPM (TDS) – 1300
Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture
Lighting Schedule: 11.5/12.5
Light in PAR: 290 (+or- 5)
Temp/Humidity 70-83F / 45-55%RH
Plants Watered to Saturation/Runoff

Day 98

Flower Day 37

Nutrients: Dominion Organics
A-2 tsp. per gal.
B- 3 tsp. per gal.
B29 2 tsp. per gal.
Carburetor 2 tsp. per gal.
Cal-Mag Force 1 tsp. per gal
Recharge – ¼ tsp. per gal.
Micro Chip –½ ml per gal.
SLF 100 – 1 tsp. per gal
Brix Booster ¼ tsp per gal
Blossom Rocket 1/2 tsp per gal
PH – 6
PPM (TDS) – 1200
Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture
Lighting Schedule: 11.5/12.5
Light in PAR: 290 (+or- 5)
Temp/Humidity 70-83F / 45-55%RH
Plants Watered to Saturation/Runoff

Day 101

Flower Day 40

Nutrients: Dominion Organics

A-1.5 tsp. per gal.
B- 2 tsp. per gal.
B29 2 tsp. per gal.
Carburetor 2 tsp. per gal.
Cal-Mag Force 1 tsp. per gal
Micro Chip –½ ml per gal.
SLF 100 – 1 tsp. per gal
Brix Booster ¼ tsp per gal
Blossom Rocket 1/2 tsp per gal
PH – 6
PPM (TDS) – 1100
Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture
Lighting Schedule: 11.5/12.5
Light in PAR: 290 (+or- 5)
Temp/Humidity 70-83F / 45-55%RH
Plants Watered to Saturation/Runoff

Day 104

Flower Day 43

A-1 tsp. per gal.
B- 1 tsp. per gal.
B29 1 tsp. per gal.
Carburetor 1 tsp. per gal.
Cal-Mag Force 1 tsp. per gal
SLF 100 – 1 tsp. per gal
Brix Booster ¼ tsp per gal
Blossom Rocket 1/2 tsp per gal
PH – 6
PPM (TDS) – 800
Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture
Lighting Schedule: 11.5/12.5
Light in PAR: 290 (+or- 5)
Temp/Humidity 70-83F / 45-55%RH
Plants Watered to Saturation/Runoff

Day 107-114

Flower Days 46-53

FLUSH

R/O WATER ONLY

PPM >20

PH 6.5

Lighting: 315w CMH Philips Green Power Bulb in D Papillon fixture

Lighting Schedule: 11.5/12.5

Light in PAR: 290 (+or- 5)

Temp/Humidity 70-83F / 45-55%RH

Plants Watered to Saturation/Runoff

Harvest - Day 114

Hang Dry - Days 114 – 121

Trim - Day 122 (January 27, 2020)

Harvest Data

Harvest Data

Day 114

Take Down

Each Trunk was Cut within 1" of Medium and Hung as a Whole Plant

Each Plant was Weighed Each Day During Hang Dry

Dry

| | | | | | | | | |
|--------------|----------|------|------|------|------|------|-----|-----|
| Temperature | 72F | / | 70F | / | 68F | | | |
| Humidity | 45 - 50% | / | 50% | / | 55% | | | |
| DAY | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 |
| 1 LST | 349g | 210g | 150g | 112g | 102g | 95g | 91g | 89g |
| 2 Topped | 361g | 230g | 169g | 119g | 105g | 96g | 91g | 89g |
| 5 Super Crop | 371g | 237g | 172g | 118g | 102g | 95g | 88g | 88g |
| 6 OG Spring | 387g | 239g | 172g | 122g | 109g | 102g | 97g | 94g |

Day 121

Buck Up

| | | | | |
|--------------|----------|------|------|-------|
| Weight | Big Leaf | Trim | Tops | Frame |
| 1 LST | 3g | 10g | 55g | 18g |
| 2 Topped | 4g | 10g | 52g | 19g |
| 5 Super Crop | 6g | 9g | 55g | 17g |
| 6 OG Spring | 2g | 10g | 60g | 19g |

Day 122

| | | |
|------------------------|------|--------|
| Pre Final Trim Weights | Tops | Frame |
| 1 LST | 54g | 17.4g |
| 2 Topped | 52g | 17.88g |
| 5 Super Crop | 55g | 15.44g |
| 6 OG Spring | 60g | 18.5g |

Final Trim

Broken Down By Top

1 LST

| | | | | |
|--------|----------|-------------------|---------------|--------------------|
| | Length / | Pre Trim Weight / | Stem Weight / | Trim Flower Weight |
| Top #1 | 180mm | 3.2g | .24g | 2.94g |
| Top #2 | 160mm | 4.2g | .30g | 3.87g |

| | | | | |
|--------|-------|------|------|--------------|
| Top #3 | 190mm | 5.2g | .42g | 4.76g |
| Top #4 | 170mm | 5.7g | .37g | 5.31g |
| Top #5 | 180mm | 5.8g | .50g | 5.27g |
| Top #6 | 195mm | 6.2g | .46g | 5.72g |
| Top #7 | 205mm | 6.6g | .49g | 6.09g |
| Top #8 | 220mm | 9.1g | .82g | 8.26g |
| Top #9 | 210mm | 8.3g | .60g | 7.66g |
| | | | | Total 49.88g |

2 Topped

| | Length / | Pre Trim Weight / | Stem Weight / | Trim Flower Weight |
|--------|----------|-------------------|---------------|--------------------|
| Top #1 | 145mm | 3.2g | .20g | 2.91g |
| Top #2 | 170mm | 3.5g | .24g | 3.22g |
| Top #3 | 165mm | 4.8g | .38g | 4.34g |
| Top #4 | 155mm | 5.7g | .37g | 5.28g |
| Top #5 | 205mm | 7.3g | .64g | 6.59g |
| Top #6 | 230mm | 6.7g | .60g | 6.03g |
| Top #7 | 195mm | 6.6g | .50g | 6.01g |
| Top #8 | 235mm | 7.7g | .80g | 6.82g |
| Top #9 | 205mm | 6.7g | .50g | 6.06g |
| | | | | Total 47.26g |

5 Super Crop

| | Length / | Pre Trim Weight / | Stem Weight / | Trim Flower Weight |
|--------|----------|-------------------|---------------|--------------------|
| Top #1 | 145mm | 3.6g | .23g | 3.35g |
| Top #2 | 180mm | 4.1g | .35g | 3.72g |
| Top #3 | 215mm | 4.4g | .43g | 3.93g |
| Top #4 | 175mm | 5.8g | .45g | 5.31g |
| Top #5 | 190mm | 5.6g | .56g | 5.01g |
| Top #6 | 210mm | 8.4g | .73g | 7.40g |
| Top #7 | 200mm | 5.7g | .45g | 5.19g |
| Top #8 | 205mm | 8.6g | .72g | 7.80g |
| Top #9 | 200mm | 7.9g | .69g | 7.19g |
| | | | | Total 48.90g |

OG Spring

| | Length / | Pre Trim Weight / | Stem Weight / | Trim Flower Weight |
|--------|----------|-------------------|---------------|--------------------|
| Top #1 | 150mm | 4.3g | .28g | 3.99g |
| Top #2 | 180mm | 5.9g | .47g | 5.39g |

| | | | | |
|--------|-------|-------|------|--------------|
| Top #3 | 195mm | 6.5g | .60g | 5.86g |
| Top #4 | 195mm | 7.0g | .54g | 6.42g |
| Top #5 | 155mm | 4.9g | .32g | 4.52g |
| Top #6 | 200mm | 6.9g | .65g | 6.22g |
| Top #7 | 195mm | 7.9g | .49g | 7.37g |
| Top #8 | 180mm | 5.9g | .46g | 5.40g |
| Top #9 | 215mm | 10.6g | .87g | 9.67g |
| | | | | Total 54.84g |

Harvest Yield Data (Dried + Trimmed)

| TECHNIQUE | WEIGHT | PERCENTAGES/DIFFERENTIAL | | RANK |
|----------------|--------|--------------------------|----------|------|
| OG Spring | 54.91g | 100% | (-0.00%) | #1 |
| LST | 50.01g | 90% | (-10%) | #2 |
| Super Cropping | 48.96g | 88% | (-12%) | #3 |
| Topping | 47.36g | 84% | (-16%) | #4 |

Height Data

Height Data

Height Day 35 Inches – From Medium to Apical Meristem Top Cluster

| | |
|---|-------|
| 1 | 8" |
| 2 | 9.25" |
| 3 | 8.5" |
| 4 | 8.25" |
| 5 | 8.25" |
| 6 | 9" |

Height Day 44 Inches – From Medium to Upper Canopy

| | |
|---|------|
| 1 | 8.5" |
| 2 | 9" |
| 5 | 8.5" |
| 6 | 9" |

Height Day 62 Inches – From Medium to Upper Canopy

| | |
|---|-------|
| 1 | 16" |
| 2 | 14.5" |
| 5 | 14.5" |
| 6 | 16.5" |

Height Day 114 Inches Medium to Top of Tallest & Shortest Flowers

| | |
|---|-------------------|
| 1 | 28-30" LST |
| 2 | 28-29" Topped |
| 5 | 27-28" Super Crop |
| 6 | 29-30" OG Spring |

Watering Data

Watering Data

Day 29 WEIGHT (in grams)

Watering to Runoff/Saturation 150ml

*To Start, Each plant received 150ml of Water/Nutrients (enough to saturate all medium & produce runoff)

| Subject | Before Watering | Immediately After Watering | Differential |
|---------|-----------------|----------------------------|--------------|
| 1 | 124g | 260g | +136g |
| 2 | 116g | 266g | +150g |
| 3 | 134g | 288g | +154g |
| 4 | 131g | 272g | +141g |
| 5 | 117g | 269g | +152g |
| 6 | 120g | 266g | +146g |

| Day 30 | 1 Day After Watering | Differential 24hrs |
|--------|----------------------|--------------------|
| 1 | 202g | -58g |
| 2 | 207g | -59g |
| 3 | 223g | -65g |
| 4 | 221g | -51g |
| 5 | 204g | -65g |
| 6 | 206g | -60g |

| Day 31 | 2 Days After Watering | Differential 24hrs |
|--------|-----------------------|--------------------|
| 1 | 135g | -67g |
| 2 | 139g | -68g |
| 3 | 152g | -71g |
| 4 | 156g | -65g |
| 5 | 135g | -69g |
| 6 | 139g | -67g |

Day 31 Continued

Watering To Saturation/Runoff 150ml of 650 ppm 6.0 pH

| | Immediately After Watering | Differential |
|---|----------------------------|--------------|
| 1 | 266g | +131g |

| | | |
|---|------|-------|
| 2 | 267g | +128g |
| 3 | 285g | +133g |
| 4 | 275g | +119g |
| 5 | 268g | +133g |
| 6 | 270g | +131g |

| | | |
|--------|----------------------|--------------------|
| Day 32 | 1 Day After Watering | Differential 24hrs |
| 1 | 200g | -66g |
| 2 | 201g | -66g |
| 3 | 217g | -68g |
| 4 | 213g | -62g |
| 5 | 201g | -67g |
| 6 | 206g | -64g |

| | | |
|--------|-----------------------|--------------------|
| Day 33 | 2 Days After Watering | Differential 24hrs |
| 1 | 132g | -68g |
| 2 | 135g | -66g |
| 3 | 145g | -72g |
| 4 | 146g | -67g |
| 5 | 131g | -70g |
| 6 | 139g | -67g |

| | | |
|------------------|----------------------------|--------------|
| Day 33 Continued | Immediately After Watering | Differential |
| 1 | 274g | +142g |
| 2 | 274g | +139g |
| 3 | 289g | +144g |
| 4 | 282g | +136g |
| 5 | 270g | +139g |
| 6 | 273g | +134g |

| | | |
|--------|----------------------|--------------------|
| Day 34 | 1 Day After Watering | Differential 24hrs |
| 1 | 181g | -93g |
| 2 | 182g | -92g |
| 3 | 196g | -95g |
| 4 | 193g | -89g |
| 5 | 180g | -90g |

| | | |
|---|------|------|
| 6 | 184g | -89g |
|---|------|------|

| Day 35 | 2 Days After Watering | Differential 24hrs |
|--------|-----------------------|--------------------|
| 1 | 111g | -70g |
| 2 | 109g | -73g |
| 3 | 121g | -75g |
| 4 | 117g | -76g |
| 5 | 109g | -71g |
| 6 | 114g | -70g |

Transplant #2 (PINT to 2 Gallon)

Plants 1, 2, 5 & 6 Were Selected and 3 & 4 Were Removed

| Day 35 Cont. | Immediately After Watering | |
|--------------|----------------------------|--------|
| 1 | 2841g | +2730g |
| 2 | 2833g | +2724g |
| 5 | 2833g | +2724g |
| 6 | 2850g | +2736g |

| Day 36 | 1 Day After Watering | Differential 24hrs |
|--------|----------------------|--------------------|
| 1 | 2700g | -141g |
| 2 | 2669g | -164g |
| 5 | 2668g | -164g |
| 6 | 2715g +stake 30g | -165g |

| Day 37 | 2 Days After Watering | Differential 24hrs |
|--------------|-----------------------|--------------------|
| 1 LST | 2535g | -165g |
| 2 Top | 2493g | -176g |
| 5 Super Crop | 2489g | -179g |
| 6 OGSpring | 2536g | -179g |

| Day 38 | 3 Days After Watering | Differential 24hrs |
|--------|-----------------------|--------------------|
| 1 | 2377g | -158g |
| 2 | 2328g | -165g |

| | | |
|---|-------|-------|
| 5 | 2331g | -158g |
| 6 | 2363g | -173g |

Day 38 Cont. Immediately After Watering (Training Day) Differential

| | | |
|-----------------|---------------------------|-------|
| 1 watered 75ml | 2465g (+8g wire) | +88g |
| 2 watered 114ml | 2442g | +114g |
| 5 watered 108ml | 2439g (+8g wire) | +108g |
| 6 watered 119ml | 2507g (+spring,+wire 25g) | +144g |

Notes:

The watering amounts are slightly atypical because it was felt that a recalibration was necessary in order to keep plants synchronized in relation to the timing of waterings and so that plants not quite as ready for water were not overwatered.

| | | |
|--------|----------------------|--------------------|
| Day 39 | 1 Day After Watering | Differential 24hrs |
| 1 | 2311g | -154g |
| 2 | 2289g | -153g |
| 5 | 2292g | -147g |
| 6 | 2355g | -152g |

| | | |
|--------|-----------------------|--------------------|
| Day 40 | 2 Days After Watering | Differential 24hrs |
| 1 | 2174g | -137g |
| 2 | 2151g | -138g |
| 5 | 2158g | -134g |
| 6 | 2179g | -176g |

| | | |
|--------|-----------------------|--------------------|
| Day 41 | 3 Days After Watering | Differential 24hrs |
| 1 | 2042g | -132g |
| 2 | 2017g | -134g |
| 5 | 2036g | -122g |
| 6 | 2033g | -146g |

| | | |
|--------------|----------------------------|--------------|
| Day 41 cont. | Immediately After Watering | Differential |
| 1 | 2296g | +254g |
| 2 | 2269g | +252g |

| | | |
|---|-------|-------|
| 5 | 2294g | +258g |
| 6 | 2284g | +251g |

| | | |
|--------|----------------------|--------------------|
| Day 42 | 1 Day After Watering | Differential 24hrs |
| 1 | 2121g | -175g |
| 2 | 2102g | -167g |
| 5 | 2137g | -157g |
| 6 | 2098g | -186g |

| | | |
|--------|-----------------------|--------------------|
| Day 43 | 2 Days After Watering | Differential 24hrs |
| 1 | 1978g | -143g |
| 2 | 1963g | -139g |
| 5 | 2010g | -127g |
| 6 | 1961g | -137g |

| | | |
|--------------|----------------------------|--------------|
| Day 43 cont. | Immediately After Watering | Differential |
| 1 | 2923g | +945g |
| 2 | 2910g | +947g |
| 5 | 2955g | +945g |
| 6 | 2913g | +952g |

| | | |
|--------|----------------------|--------------------|
| Day 44 | 1 Day After Watering | Differential 24hrs |
| 1 | 2704g | -219g |
| 2 | 2697g | -213g |
| 5 | 2750g | -205g |
| 6 | 2676g | -237g |

| | | |
|-------------|---------------------------------------|------|
| Day 44 cont | After Adding Soft Wire (Training Day) | |
| 1 | 2718g | +14g |
| 2 | 2715g | +18g |
| 5 | 2761g | +11g |
| 6 | 2686g | +10g |

| | | |
|--------|-----------------------|--------------------|
| Day 45 | 2 Days After Watering | Differential 24hrs |
| 1 | 2453g | -265g |

| | | |
|---|-------|-------|
| 2 | 2473g | -242g |
| 5 | 2526g | -235g |
| 6 | 2413g | -273g |

| | | |
|--------|-----------------------|--------------------|
| Day 46 | 3 Days After Watering | Differential 24hrs |
| 1 | 2192g | -261g |
| 2 | 2219g | -254g |
| 5 | 2290g | -236g |
| 6 | 2143g | -270g |

| | | |
|--------|-----------------------|--------------------|
| Day 47 | 4 Days After Watering | Differential 24hrs |
| 1 | 1966g | -226g |
| 2 | 1989g | -230g |
| 5 | 2077g | -213g |
| 6 | 1921g | -222g |

| | | |
|-------------|----------------------------|--------------|
| Day 47 Cont | Immediately After Watering | Differential |
| 1 | 2966g | +1000g |
| 2 | 2987g | +998g |
| 5 | 3075g | +998g |
| 6 | 2922g | +1001g |

| | | |
|--------|----------------------|--------------------|
| Day 48 | 1 Day After Watering | Differential 24hrs |
| 1 | 2643g | -323g |
| 2 | 2672g | -315g |
| 5 | 2761g | -314g |
| 6 | 2596g | -326g |

| | | |
|--------|-----------------------|--------------------|
| Day 49 | 2 Days After Watering | Differential 24hrs |
| 1 | 2308g | -335g |
| 2 | 2338g | -334g |
| 5 | 2456g | -305g |
| 6 | 2254g | -342g |

| | | |
|--------------|--|--------------------|
| Day 49 cont. | Immediately After Training/Defoliation | Differential 24hrs |
| 1 | 2296g | -12g |

| | | |
|---|-------|------|
| 2 | 2326g | -12g |
| 5 | 2456g | 0g |
| 6 | 2251g | -3g |

| | | |
|--------|-----------------------|--------------------|
| Day 50 | 3 Days After Watering | Differential 24hrs |
| 1 | 2028g | -268g |
| 2 | 2044g | -282g |
| 5 | 2188g | -267g |
| 6 | 2001g | -250g |

| | | |
|--------------|--------------------------------------|--------------------|
| Day 50 Cont. | Immediately After Watering to Runoff | Differential 24hrs |
| 1 | 3103g | +1075g 8% less |
| 2 | 3118g | +1074g 8% less |
| 5 | 3183g | +995g 17% less |
| 6 | 3166g | +1165g |

| | | |
|--------|----------------------|--------------------|
| Day 51 | 1 Day After Watering | Differential 24hrs |
| 1 | 2775g | -324g |
| 2 | 2781g | -335g |
| 5 | 2875g | -305g |
| 6 | 2842g | -320g |

| | | |
|-------------|----------------|--------------|
| Day 51 cont | After Training | Differential |
| 1 | 2778g (wire) | +3g |
| 2 | 2786g (wire) | +5g |
| 5 | 2875g | 0g |
| 6 | 2842g | 0g |

| | | |
|--------|-----------------------|--------------------|
| Day 52 | 2 Days After Watering | Differential 24hrs |
| 1 | 2419g | -359g |
| 2 | 2422g | -364g |
| 5 | 2539g | -336g |
| 6 | 2472g | -370g |

| | | |
|--------|-----------------------|--------------------|
| Day 53 | 3 Days After Watering | Differential 24hrs |
|--------|-----------------------|--------------------|

| | | |
|---|-------|-------|
| 1 | 2080g | -339g |
| 2 | 2071g | -351g |
| 5 | 2197g | -342g |
| 6 | 2112g | -360g |

| | | |
|--------|-----------------------|--------------------|
| Day 54 | 4 Days After Watering | Differential 24hrs |
| 1 | 1803g | -277g |
| 2 | 1790g | -281g |
| 5 | 1892g | -305g |
| 6 | 1822g | -290g |

| | | |
|--------------|----------------------------|--------------|
| Day 54 cont. | Immediately After Watering | Differential |
| 1 | 3135g | +1332g |
| 2 | 3178g | +1388g |
| 5 | 3211g | +1319g |
| 6 | 3225g | +1403g |

| | | |
|--------|----------------------|--------------------|
| Day 55 | 1 Day After Watering | Differential 24hrs |
| 1 | 2696g | -439g |
| 2 | 2740g | -438g |
| 5 | 2767g | -444g |
| 6 | 2761g | -464g |

| | | |
|--------------|----------------------------|--------------|
| Day 55 cont. | Immediately After Training | Differential |
| 1 | 2683g | -13g |
| 2 | 2757g | +17g |
| 5 | 2765g | -2g |
| 6 | 2761g | 0g |

| | | |
|--------|-----------------------|--------------------|
| Day 56 | 2 Days After Watering | Differential 24hrs |
| 1 | 2274g | -409g |
| 2 | 2355g | -402g |
| 5 | 2365g | -400g |
| 6 | 2341g | -420g |

| | | |
|--------|-----------------------|--------------------|
| Day 57 | 3 Days After Watering | Differential 24hrs |
|--------|-----------------------|--------------------|

| | | |
|---|-------|-------|
| 1 | 1856g | -418g |
| 2 | 1943g | -412g |
| 5 | 1933g | -432g |
| 6 | 1907g | -434g |

| | | |
|--------------|----------------------------|--------------|
| Day 57 cont. | Immediately After Watering | Differential |
| 1 | 3256g | +1400g |
| 2 | 3288g | +1345g |
| 5 | 3268g | +1335g |
| 6 | 3316g | +1409g |

| | | |
|--------|----------------------|--------------------|
| Day 58 | 1 Day After Watering | Differential 24hrs |
| 1 | 2824g | -432g |
| 2 | 2863g | -425g |
| 5 | 2851g | -417g |
| 6 | 2903g | -413g |

| | | |
|--------|-----------------------|--------------|
| Day 59 | 2 Days After Watering | Differential |
| 1 | 2330g | -494g |
| 2 | 2368g | -495g |
| 5 | 2348g | -503g |
| 6 | 2382g | -521g |

| | | |
|--------|-----------------------|--------------|
| Day 60 | 3 Days After Watering | Differential |
| 1 | 1874g | -456g |
| 2 | 1906g | -462g |
| 5 | 1853g | -495g |
| 6 | 1888g | -494g |

| | | |
|--------|-------------------|--------------|
| Day 60 | After Defoliation | Differential |
| 1 | 1860g | -14g |
| 2 | 1891g | -15g |
| 5 | 1837g | -16g |
| 6 | 1868g | -20g |

| | | |
|--------|----------------------------|--------------|
| Day 60 | Immediately After Watering | Differential |
|--------|----------------------------|--------------|

| | | |
|---|-------|--------|
| 1 | 3238g | +1378g |
| 2 | 3250g | +1359g |
| 5 | 3300g | +1463g |
| 6 | 3324g | +1456g |

| | | |
|---------------------|----------------------|--------------------|
| Day 61 Flower Day 1 | 1 Day After Watering | Differential 24hrs |
| 1 | 2790g | -448g |
| 2 | 2812g | -438g |
| 5 | 2829g | -471g |
| 6 | 2858g | -466g |

| | | |
|---------------------|-----------------------|--------------------|
| Day 62 Flower Day 2 | 2 Days After Watering | Differential 24hrs |
| 1 | 2336g | -454g |
| 2 | 2365g | -447g |
| 5 | 2350g | -479g |
| 6 | 2377g | -481g |

| | | |
|---------------------|-----------------------|--------------------|
| Day 63 Flower Day 3 | 3 Days After Watering | Differential 24hrs |
| 1 | g | -g |
| 2 | g | -g |
| 5 | g | -g |
| 6 | g | -g |

| | | |
|---------------------|-----------------------|--------------------|
| Day 64 Flower Day 4 | 4 Days After Watering | Differential 24hrs |
| 1 | 1730g | -g |
| 2 | 1762g | -g |
| 5 | 1684g | -g |
| 6 | 1742g | -g |

| | | |
|---------------------|----------------------------|--------------------|
| Day 64 Flower Day 4 | Immediately After Watering | Differential 24hrs |
| 1 | 3339g | +1609g |
| 2 | 3181g | +1419g |
| 5 | 3210g | +1526g |
| 6 | 3392g | +1650g |

| | | |
|---------------------|----------------------|--------------------|
| Day 65 Flower Day 5 | 1 Day After Watering | Differential 24hrs |
|---------------------|----------------------|--------------------|

| | | |
|---|-------|-------|
| 1 | 2830g | -509g |
| 2 | 2744g | -437g |
| 5 | 2740g | -470g |
| 6 | 2858g | -534g |

| Day 66 Flower Day 6 | 2 Days After Watering | Differential 24hrs |
|---------------------|-----------------------|--------------------|
| 1 | 2447g | -383g |
| 2 | 2389g | -355g |
| 5 | 2360g | -380g |
| 6 | 2463g | -395g |