





**RO/SOFT**

**TAP/HARD**



**DIRTY**

**SHINE**
**VEG+BLOOM FEED SCHEDULE**

	VEG WEEK 1	VEG WEEK 2	FLOWER WEEK 1	FLOWER WEEK 2	FLOWER WEEK 3	FLOWER WEEK 4	FLOWER WEEK 5	FLOWER WEEK 6	FLOWER WEEK 7	FLOWER WEEK 8	FLOWER FINISH 1-5 DAYS
	1.75g/l	1.75g/l	1.75g/l	1.75g/l	1.75g/l	1.5g/l	1.5g/l	1.5g/l	.75g/l	.25-.5g/l	—
	1.75g/l	1.75g/l	1.75g/l	1.75g/l	1.75g/l	1.5g/l	1.5g/l	1.5g/l	.75g/l	.25-.5g/l	—
	0	0	0	0	0	0.25-0.5g/l	0.25-0.5g/l	0.25-0.5g/l	0.5g/l	0.5g/l	—
<b>TARGET EC</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>1.5</b>	<b>0.9-1.2</b>	—

\*Flush 3-5 days in Coco or 1-3 days in Rockwool

**VEG+BLOOM DIRTY FEED SCHEDULE**

	VEG (UP TO 20 DAYS AFTER TRANSPLANT)	VEG WEEK 3	FLOWER WEEK 1	FLOWER WEEK 2	FLOWER WEEK 3	FLOWER WEEK 4	FLOWER WEEK 5	FLOWER WEEK 6	FLOWER WEEK 7	FLOWER WEEK 8	FLOWER FINISH 1-5 DAYS
	0	1.75g/l	1.75g/l	1.75g/l	1.75g/l	1.5g/l	1.5g/l	1.5g/l	.75g/l	.25-.5g/l	—
	0	0	0	0	0	0.25-0.5g/l	0.25-0.5g/l	0.25-0.5g/l	0.5g/l	0.5g/l	—
<b>TARGET EC</b>	<b>0</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>1.5</b>	<b>0.9-1.2</b>	—

\*\*Amended soil can provide up to 20 days of nutrition and doesn't require added nutrients

**IMPORTANT NOTES**

- Chart based on 0.0 starting EC
- Optimal pH Ranges: 5.8-6.3 Coco — 5.5-6.0 Rockwool
- For additional weeks of Veg repeat week 2 - For additional weeks of Flower repeat week 6
- If using soil, use an inert mix







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**VEG+BLOOM FEED SCHEDULE**

	VEG WEEK 1	VEG WEEK 2	FLOWER WEEK 1	FLOWER WEEK 2	FLOWER WEEK 3	FLOWER WEEK 4	FLOWER WEEK 5	FLOWER WEEK 6	FLOWER WEEK 7	FLOWER WEEK 8	FLOWER FINISH 1-5 DAYS
	1.75g/l	1.75g/l	1.75g/l	1.75g/l	1.75g/l	1.5g/l	1.5g/l	1.5g/l	.75g/l	.25-.5g/l	—
	1.75g/l	1.75g/l	1.75g/l	1.75g/l	1.75g/l	1.5g/l	1.5g/l	1.5g/l	.75g/l	.25-.5g/l	—
	0	0	0	0	0	0.25-0.5g/l	0.25-0.5g/l	0.25-0.5g/l	0.5g/l	0.5g/l	—
<b>TARGET EC</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>1.5</b>	<b>0.9-1.2</b>	—

\*Flush 3-5 days in Coco or 1-3 days in Rockwool

**VEG+BLOOM DIRTY FEED SCHEDULE**

	VEG (UP TO 20 DAYS AFTER TRANSPLANT)	VEG WEEK 3	FLOWER WEEK 1	FLOWER WEEK 2	FLOWER WEEK 3	FLOWER WEEK 4	FLOWER WEEK 5	FLOWER WEEK 6	FLOWER WEEK 7	FLOWER WEEK 8	FLOWER FINISH 1-5 DAYS
	0	1.75g/l	1.75g/l	1.75g/l	1.75g/l	1.5g/l	1.5g/l	1.5g/l	.75g/l	.25-.5g/l	—
	0	0	0	0	0	0.25-0.5g/l	0.25-0.5g/l	0.25-0.5g/l	0.5g/l	0.5g/l	—
<b>TARGET EC</b>	<b>0</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>1.5</b>	<b>0.9-1.2</b>	—

\*\*Amended soil can provide up to 20 days of nutrition and doesn't require added nutrients

**IMPORTANT NOTES**

- Chart based on 0.0 starting EC
- Optimal pH Ranges: 5.8-6.3 Coco — 5.5-6.0 Rockwool
- For additional weeks of Veg repeat week 2 - For additional weeks of Flower repeat week 6
- If using soil, use an inert mix



## CROP STEERING/ENVIRONMENTAL TARGETS

STAGE (WEEK)	VEG (WEEK 1-4) CLONE   VEG	EARLY FLOWER (WEEK 1-3)	MID FLOWER (WEEK 4-6/7)	LATE FLOWER (LAST 2 WEEKS)	FINISH (ROCKWOOL 1-3 DAYS / COCO 3-5 DAYS)
Target EC	~2.0EC   ~2.4EC	~2.4EC	~2.4EC	~1.5EC	~0.0EC
Substrate EC	-   ~3EC	4-8EC	3-5EC	<3EC	<1EC
Steering Strategy	Vegetative	Generative	Vegetative	Generative	Generative
Irrigation Tips Overnight Dryback %	Daily Runoff 10-15% Overnight Dryback After Established Cutting (Allow Multiple Day Dryback After Each Transplant can be >15%)	Limited to no runoff 20-30% Overnight Dryback (Monitor For Salt Toxicity And Achieve Runoff If Needed)	Daily Runoff 10-20% Overnight Dryback (>20% is acceptable as long as it doesn't cause excessive burn)	Daily Runoff 30-40% Overnight Dryback (Remove SHINE 3 Days Before Harvest)	30-40% Overnight Dryback -Harvest As Close to 0% Substrate Moisture Content As Possible
Day Temp (°C)	24.4-26.6   26.6-28.8	26.6-28.8	26.6-27.7	22.2-24.4	20-22.2
Night Temp (°C)	24.4-26.6   26.6-28.8	26.6-28.8	24.4-26.6	17.7-20	17.7-20
VPD (kPa)	~0.8-1.0	~1.0-1.1	~1.0-1.1	~1.2-1.3	~1.2-1.3
RH%-Night/Day	70-80%   70-75%	65-70%	60-65%	50-60%	45-55%
PPFD Ranges (umol/m2/s)	(100-250) (250-600) <i>Increase intensity as plants progress.</i>	(600-1100) <i>Increase intensity as flowers develop.</i>	(900-1250) <i>Highest intensity achievable without signs of stress.</i>	~850	~700
CO2 (ppm)	450-600	~1000	~1200	600	450-600

\*HPS Rooms should be run 3-5° cooler than LED recommendations. Maintain proper VPD.

### IMPORTANT NOTES

- Crop Steering is not recommended without the proper substrate monitoring equipment.
- Substrate stack point targets should be built up slowly so plants acclimate.
- Look for signs of salt toxicity and lower Feed EC strength or achieve more runoff.
- Recommended Starting 0.0 EC water
- Optimal pH Ranges: 5.8-6.3 Coco — 5.5-6.0 Rockwool
- For additional weeks of Veg repeat week 2 - For additional weeks of Flower repeat week 6
- Start Mid Flower feed day 16 if reduced stretching is desired or plants finish quickly.

## INJECTION SETTINGS — DOS SYSTEM

**DOS A:** 1% = 1.0 EC    **DOS B:** 0.8% = 1.0 EC    **SHINE:** 0.5-1.0% = 0.3-0.6 EC    **BASIK:** 0.2-0.5% (No impact on EC)  
*\*1% = 37.5ml per gallon / 10ml per liter*

## DRIPPER SPECIFICATIONS

### 0.5 GPH DRIPPER

Volume Per Minute  
 1x drip - **32ml/min**  
 2x drip - **63ml/min**

### 1.0 GPH DRIPPER

Volume Per Minute  
 1x drip - **63ml/min**  
 2x drip - **125ml/min**

## QUICK REFERENCE

2x 0.5 GPH = **~1ml/second**    2x 1.0 GPH = **~2ml/second**

## ROCKWOOL TIMER SETTINGS

SUBSTRATE	VOLUME/SIZE	1% SHOT	# DRIPPERS/BLOCK	RUNTIME .5GPH	RUNTIME 1.0GPH
4x4x2 (GR6.5)	.65l	6.5ml	1	13sec	6sec
4x4x4 (GR10)	1.0l	10ml	1	20sec	10sec
HUGO (6x6x6)	3.38l	34ml	2	32sec	16sec
Uni-Block (4x8x8)	4.0l	40ml	2	38sec	19sec
Uni-Slab	4.8l	48ml	3	30sec	15sec
Gro-Slab (6")	10.13l	101ml	3	64sec	32sec

## COCO/SOIL TIMER SETTINGS

SUBSTRATE	VOLUME @ 60% WHC	1% SHOT	# DRIPPERS/BLOCK	RUNTIME .5GPH	RUNTIME 1.0GPH
1 Gal	2271 ml	23ml	2	22sec	11sec
1.5 Gal	3400 ml	34ml	2	32sec	16sec
2 Gal	4542 ml	45ml	2	43sec	21sec
3 Gal	6813 ml	68ml	2	65sec	32sec

## COCO BLOCK CONVERSION

1 Gal of Coco Fiber = 3785ml  
 60% (Moisture Holding Capacity) of 3785ml (Coco Fiber) = 2271ml  
*\*Moisture holding capacity changes depending on blend and manufacturer*





**MORE CHEMISTRY  
PER FEED.**



**BRIGHTEN UP YOUR  
FLOWERING PHASE.**

## VBX FEED SCHEDULE

	VEG WEEK 1	VEG WEEK 2	FLOWER WEEK 1	FLOWER WEEK 2	FLOWER WEEK 3	FLOWER WEEK 4	FLOWER WEEK 5	FLOWER WEEK 6	FLOWER WEEK 7	FLOWER WEEK 8	FLOWER FINISH 1-5 DAYS
	1.75-2.25g/L	1.75-2.25g/L	1.75-2.25g/L	1.75-2.25g/L	1.75-2.25g/L	1.5-1.75g/L	1.5-1.75g/L	1.5-1.75g/L	.75-1.0g/L	.25-.5g/L	—
	0	0	0	0	0	0.25-0.5g/L	0.25-0.5g/L	0.25-0.5g/L	0.5g/L	0.5g/L	—
<b>TARGET EC</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>2.1-2.4</b>	<b>1.2-1.5</b>	<b>0.9-1.2</b>	—

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## ENVIRONMENTAL TARGETS

	VEG WEEK 1-2	FLOWER WEEK 1	FLOWER WEEK 2	FLOWER WEEK 3	FLOWER WEEK 4-5	FLOWER WEEK 6-7	FLOWER WEEK 8	FINISH
<b>Day Temp (°C)</b>	24.4-26.6   26.6-28.8	26.6-28.8	26.6-28.8	26.6-27.7	22.2-24.4	22.2-24.4	20-22.2	20-22.2
<b>Night Temp (°C)</b>	24.4-26.6   26.6-28.8	26.6-28.8	26.6-28.8	24.4-26.6	17.7-20	17.7-20	17.7-20	17.7-20
<b>VPD (kPa)</b>	~0.8-1.0	~1.0-1.1	~1.0-1.1	~1.0-1.1	~1.2-1.3	~1.2-1.3	~1.2-1.3	~1.2-1.3
<b>RH%</b>	70-80%   70-75%	65-70%	65-70%	60-65%	50-60%	50-55%	45-55%	40-50%
<b>Light Intensity</b> (Scale 1-5) PPFD	[1-2] 100-250 PPFD <i>Increase as plants progress.</i>	[2-3] 250-600 PPFD <i>Increase as plants progress.</i>	[2-3] 250-600 PPFD <i>Increase as plants progress.</i>	[3-4] 600-900 PPFD <i>Increase as flowers develop.</i>	[5-MAX] 750-1200 PPFD <i>Highest without stress.</i>	[4-5] 750-1200 PPFD	[3-4] 600-800 PPFD	[3] 600 PPFD

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- For additional weeks of Veg repeat week 2 - For additional weeks of Flower repeat week 6
- Flush 3-5 days in Coco or 1-3 days in Rockwool
- If using soil, use an inert mix