







#### COCOPRO PLUGS



COCOPRO PLANT IN BAGS



#### COCOPRO CUBES

Images depict hemp

# COCOPRO **PLUGS | CUBES | BAGS**

# HIGH-QUALITY GROW MEDIA FOR HIGH-QUANTITY GROWING

CocoPro Plugs, Cubes and Plant-in-Bags were developed with the high-performance grower in mind. These are designed to cut down on the hassle and mess of filling bags or pots, and worrying about washing, or transplanting crops. CocoPro's premium quality coir comes compressed and specially packed, ready to grow. Once CocoPro is hydrated, it's ready to use.

## THE BOTANICARE DIFFERENCE

Developed by the Botanicare team of horticulturists, CocoPro is crafted with careful attention to every step of the process. Our team works hard to achieve a specific ratio between inputs of coir pith, fiber, and husks to target the exact physical properties for each container size. Each batch is buffered and washed to ensure excellent performance from the start.

Plus, strict quality control standards and analytical procedures are specified to help ensure consistent mixtures throughout the processing and manufacturing process. We've designed CocoPro with drainage properties that allow for frequent waterings or fertilizations, which are essential for automated irrigation/fertigation systems, while posing a lower risk of overwatering. This product is processed to have low EC and ideal pH to provide more control over the nutritional management of your crops. Additionally, the air-pruning fabric covers promote natural pruning and branching to help encourage vigorous root growth.

# BENEFITS:

- All-in-one planting system provides for significant time and cost savings by eliminating the need to fill pots, transplant, or shift up into larger pots later in the crop cycle.
- Can help keep growing areas clean by minimizing handling and filling of containers.
- CocoPro coir pith exhibits low EC/salt levels, excellent and inherent cation exchange capacity (CEC, meaning it holds on to nutrients and releases slowly over time), ideal pH for plant growth.
- The high-porosity mix provides fantastic air/gas exchange, and wicks and distributes water easily throughout the media.
- Breathabable mesh fabric helps promote root pruning and strong root growth.

### PRODUCT APPLICATIONS

Botanicare CocoPro is designed for high intensity growing environments such as greenhouse or indoor growing facilities. CocoPro is not recommended for outdoor growing applications. CocoPro is designed to provide high aeration and drainage with moderate water holding capacity. This makes CocoPro an excellent option for fast growing crops that can handle frequent irrigation events.





IDEAL pH

range.

pH naturally

in acceptable

HIGH AERATION More air gets into the plant roots which promotes growth.



NUTRITIONAL VALUE No nutrient charge to allow for a high degree of fertilization control.



coir chunks

Coco Coir pith, coir fiber and

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# **IRRIGATION STRATEGY**

Botanicare CocoPro delivers excellent performance with a variety of different irrigation strategies. Regardless of the specific irrigation strategy, it is important to monitor the moisture content to best determine when best to irrigate. This can be done with a moisture sensor, or by a simple 'touch-and-feel' method of lifting the cube or plant-in bags. Irrigation frequency will increase as the plant grows in size and the roots expand throughout the media regardless of specific strategy. Growers who wish to track their salt levels should utilize the Pour Through Method of extracting growing media solution from the root zone and not simply collect leachate from an irrigation, as the method will vary.

# GENERAL TIPS AND TRICKS

#### High Frequency (Pulse) Irrigation

- The goal is to provide several small irrigation 'doses' or 'events' per day when irrigating.
- A professionally designed drip irrigation system is preferred to help ensure consistent and uniform delivery of water and nutrients.
- By irrigating with small doses, the nutrient solution has time to move throughout the media. This results in a very even saturation of the media.
- Irrigate between 1-2 hours after lights turn on (or sunrise) for optimal results.
- Low and slow is the key. During the day it is best to keep plants near container capacity. Stop irrigating before lights out to allow sufficient time for a dryback overnight.
- It is best to irrigate with sufficient volume to allow runoff daily, ideally between 5-20% of volume per day that you give to the plants should drain out of the block or bag. This ensures full saturation within the container and prevents salt accumulation within the media.
- With pulse irrigation, it is normal for growers not to see any runoff until mid-day or later as the media can take several small irrigation events to approach container capacity.

#### Low Frequency (Episodic) Irrigation

- This irrigation method can be done using a drip irrigation system or by hand watering with a hose or wand and yields excellent results with CocoPro.
- Depending on the cube or bag size, one large irrigation event per day may be adequate. As roots proliferate within the container, watering frequency may need to be increased to several times per day depending on the plant size and container size.
- Irrigate to runoff, ideally between 5-20% of container capacity per irrigation event. This ensures full saturation within the pot and prevents salt accumulation within the media.

# HANDLING INSTRUCTIONS

- 1. Choose the appropriate, ready-to-use product and size for your crop (Plug / Cube / Bag).
- 2. Fully hydrate CocoPro with a pH balanced nutrient solution (5.8-6.2) at the feed rate that the crop will be receiving once planted into the CocoPro product. Allow enough time for the coir to fully expand. *For an in-depth discussion on irrigation design and best practices, reach out to our sales team.*
- 3. Expansion time will vary based on product size, irrigation method, and rate of water addition.
  - a. CocoPro plant-in bags expand fast when top watered using a low flow watering wand. This process can take up to 8-10 minutes.
  - b. CocoPro cubes can be expanded by top or bottom watering (eg. by flooding a table with water that has cubes on it). This process can take up to 8-10 minutes.
  - c. Drip irrigation can also be used for expanding cubes or plant-in bags. The process is slower, but will provide uniform expansion. Be sure that drip stakes are placed in a way that they will drip directly onto the coco coir medium. Once the medium is partially expanded, the stakes can be inserted into the medium for final expansion. The timing of this process will depend entirely on the flow rate of the drip emitters used.
- 4. Transplant seedlings, rooted cuttings, or mature plants into CocoPro.
- 5. Water CocoPro again, with an appropriate nutrient solution, until a 10-15% runoff is achieved.
- 6. CocoPro is designed for high-intensity hydroponic applications, meaning it has very little or no nutritional charge to allow the grower to steer the crop with their nutritional program. It is important to fertilize at an appropriate rate to reduce nutrient deficiencies in the crop.
- 7. Do not allow CocoPro to become excessively dry in between irrigation events. This may increase the difficulty of rewetting.