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Overview

Pot-Ponics: Cocoponic 3 Plant Kit -

Thank you for purchasing the Pot-Ponics: Cocoponic 3 Plant Kit. You can now look forward to enjoying the benefits of a very effective and 100% organic hydroponic growing system.

Kit Information

Instructions

Growing indoors using Pot Ponics is a simple and incredibly effective method of gardening. You just put your plants in the pots (placing saucers underneath), fill these full of growing media then water them regularly with nutrient solution. It's very much like growing plants with earth, but turbo-charged!

Use of artificial lights means your plants will grow faster, give you bigger blooms and yield more. A grow light allows you to create your own private garden for yearround enjoyment. No longer will you be dependent on the seasons when growing your favourite plants.

Now you can even harvest in the darkest, coldest depths of winter... imagine that! Having precise control over your

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Kit Contents

- 250 Watt Budget Lighting System
 - Budget Reflector
 - 250 Watt Hobby Control Gear Ballast
 - 250 Watt Son T-Plus Lamp
- Fzi Rollers (Pair) 1x
- 7.5 Litre Hydro Pot 3x
- 3x **Brown Saucer**
- 1x Canna Coco Nutrient - 2 Litres (A & B)
- 4x Total Blackout Sheeting (metre)
- pH Down 250mls 1x
- pH Test Kit 1x
- 7x Jiffy Plugs
- 50 Litre bag Canna Coco Coir

growing environment is fun, easy and rewarding - even someone who possesses limited gardening skills can expect to get excellent results with a little patienceand effort.

Where Can You Garden?

Your Cocoponic 3 Plant Kit is suitable for gardening in any indoor environment – be it a greenhouse, conservatory, garage, or in the corner of a room or school classroom. Even lofts and wardrobes can be turned into growing areas!

When choosing an area try to give yourself as much headroom as possible to avoid excessive heat build-up at plant level. The minimum floor area recommended for this kit is about 45cm by 90cm. It's similarly important to think about airflow. For example, you may want to consider having a gap or vent in the top and bottom of the growing chamber for air to flow through. This will have the effect of allowing heat to escape from the top of the growing chamber while drawing fresh air from the bottom. The larger the vent holes, the better your results. You can also use an extractor fan to help with air exchange.

Additionally, always make sure your growing chamber is cleaned to start with, as well as after each crop.

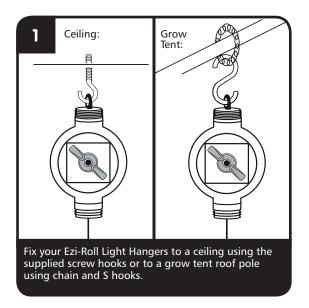
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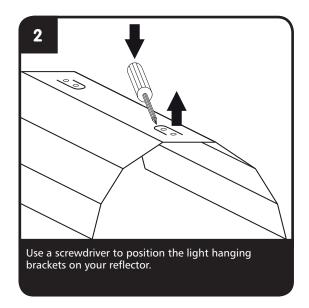


Below are instructions on how to set up your Cocoponic 3 Plant Kit in areas with no natural daylight, such as a BudBox grow tent or purpose-built grow room/growing chamber. To use your kit in a greenhouse, conservatory or in the classroom you can follow exactly the same principles. Everything will be set up in an identical manner, giving you the basis to easily achieve great results.

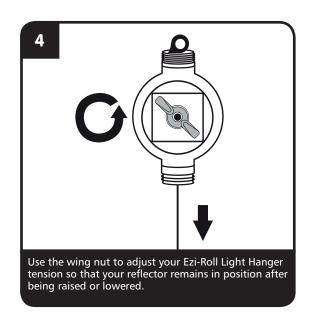
Hanging Your Reflector

Once you have chosen a suitable place for growing the first task will be to hang your reflector. The Ezi-Roll Light Hangers included in your kit save so much time and effort compared to alternatives such as chain, and make it incredibly easy to ensure that your light is always at the optimum height for your plants. Suspend your light reflector from a pair and then adjust the height simply by gently pulling it up or down. To set up your Ezi-Roll Light Hangers refer to the guide below;



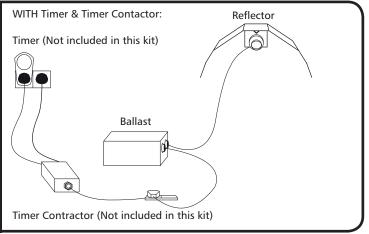






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Your 250 Watt Budget Lighting System is manufacturered to the highest standards and is specifically designed with indoor growing in mind. For the intensive cultivation of light loving plants, your 250 Watt light will cover an area of about 90cm x 90cm (3' x 3'), with preferably as much head room (grow room height) as possible. It's OK to grow in an area as small as this although it is more demanding on you and your plants - a small extractor to remove the hot air might prove beneficial in such circumstances. Your 250 Watt light will also cover a larger area than 90cm x 90cm (3' x 3') for medium light gardens or even larger for propagation rooms. Use the Total Blackout sheeting supplied to section off the corner of a room or to line any dark surfaces with. The white surface will reflect light back onto your plants for maximum yield.

With your reflector suspended in place, carefully screw the Son T-Plus lamp into the lampholder making sure of a firm fit. Next plug the lead coming from your reflector into your ballast. If you are not using a timer then plug the power lead coming from the ballast into the mains. However, if you are using a timer (advisable), plug the power lead coming from the ballast into the output socket of a lighting contactor. Then locate the 'input' lead coming from the contactor and plug it into the mains. Next identify the 'Timer' lead coming from the contactor and plug it into a timer. Finally, select when you want the timer to switch on and off by adjusting its settings and afterwards plug this into the mains. You are now in a position to safely switch on the mains.

Lamp Heights

During propagation and transplanting the 250 Watt light should be 1.2m (4') above your plants, being adjusted when necessary to maintain preferred temperatures. Gradually the light can be moved down, a couple of inches each week. If the plants are growing well after a week or two (maybe a few inches high), then move the light to about 90cm (3') away from the plant tops. The plants need to be strong and healthy – at least 45cm (18") tall - before the light is closer than 60cm (2') away. You probably shouldn't get any closer than this at any stage of growth.

This is a rough guide. Ideal lamp heights will vary depending on the room you are growing in and whether an extraction air exchange system is used. The main concern is preventing excessive heat generated by the lamps from damaging the plants (too hot: look for leaves curling upward at tips and margins, over transpiration and general leaf damage).

If your area is getting too warm or humid you may need an extractor fan.

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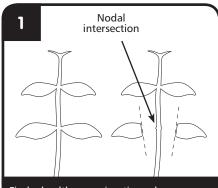
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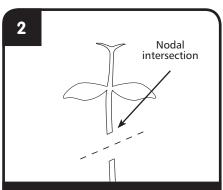
instructions is solely at the customers discretion and risk.

The Growing from Cuttings/Cloning Method

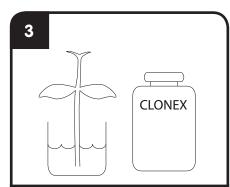
Growing from cuttings allows you to duplicate a particular plant that has already been successful. To do so:



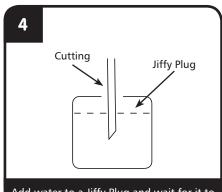
Find a healthy growing tip and remove the new shoots and leaves about 10cm (4") from the back of the tip.



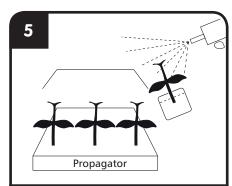
At the base of this nodal intersection make a clean diagonal cut removing the cutting from the mother plant using a disposable cloning scalpel.



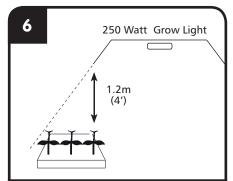
Immediately place the cutting in a good rooting gel, such as Clonex, and leave for a minute or two.



Add water to a Jiffy Plug and wait for it to expand. DO NOT adjust the pH. Put the Jiffy Plug on a tray, then firmly insert your cutting into it. There is no need for extra feed - the Jiffy Plug will provide enough nutrients to get your young plant going.



Lightly mist the cutting with water and place it in your propagator alongside any other cuttings. These should not be left standing in water but must not be allowed to dry out.



Place your propagator in your grow chamber with the 250 Watt light about 1.2m (4') above it (NOT directly above as this will damage the plants).

Adjust when necessary to maintain temperatures between 21°C and 26°C (24°C is ideal). Root cuttings under light for 18 to 24 hours. A good humidity level is around 70% to 80% relative humidity.

- Close the vents on the propagator for the first few hours until you see a light misting of moisture on the inside of the lid, then open the vents slightly to maintain these conditions.
- · Every other day, lift the lid, wipe any excess moisture off the inside of the lid, mist the plants with water and replace the lid. Adjust the vents as necessary.

Roots will emerge from each Jiffy Plug after 10 to 20 days. The cuttings are now rooted and ready to be transplanted. Now proceed to the section on Transplanting into 7.5 Litre Hydro Pots (page 6).

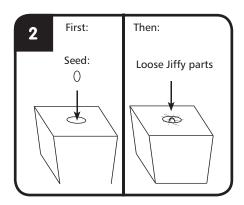
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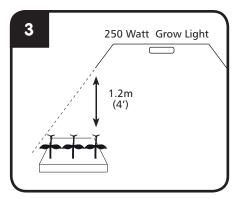


It is sometimes a good option to grow from seeds as opposed to cuttings, maybe because you don't have a mother plant or if you are new to indoor growing. To germinate seeds you can either do so on wet tissue and then manually transfer them to Jiffy Plugs or you can start them straight into Jiffy Plugs inside a propagator. Using a propagator will give you more control over temperature and humidity.

Growing Seeds WITH a Propagator

- Add water to a Jiffy Plug and wait for it to expand. DO NOT adjust the pH. Put the Jiffy Plug on a tray, then firmly insert your seed into it. There is no need for extra feed - the Jiffy Plug will provide enough nutrients to get your young plant going.
- 2. Make a hole in the top of each Jiffy Plug large enough so that a seed will sit loosely below the surface. Drag a few loose strands of the Jiffy Plug over the top surface of the seed, helping to keep it moist and sheltered. Now sit this on a tray with others and place it inside a propagator. The plants should not be left standing in water nor should they be allowed to dry out. Mist the top and sides of the Jiffy Plugs if they start to dry out a little.
- 3. Place your propagator in your grow chamber with the 250 Watt light about 1.2m (4') above it, adjusting this when necessary to maintain temperatures between 21°C and 26°C (24°C is ideal). You can further protect your propagator from light intensity by moving it out of direct light or even by covering the top with one layer of spreader mat.
- 4. Close the vents on the propagator for the first few hours until you see a light misting of moisture on the inside of the lid, then open the vents slightly to maintain these conditions.
- 5. After 2 or 3 days the cracked seed shell on each plant will start to push up and out of the mix on a thin stem. Remove the propagator lid now it is no longer needed.
- 6. Roots will emerge from each Jiffy Plug after 10 to 20 days. The plants are now rooted and ready to be transplanted. Proceed to the section on Transplanting into 7.5 Litre Hydro Pots (page 6).





Growing Seeds WITHOUT a Propagator

- 1. Wet several layers of tissue on a saucer with water from a hand sprayer or mister. Make sure there is no excess water in the bottom of the saucer.
- 2. Place the seeds on the wet tissue, leaving a small gap between them. Then place another saucer on top and move to a warm room or cupboard.
- 3. The seeds will crack easily using this method. For each plant once the seed shell has cracked open a small white tap root will emerge from the crack. At this point take the seedling and insert the tap root into the hole in a prewetted Jiffy Plug. Leave the shell sitting on the surface of the Jiffy Plug.
- 4. Put the seedlings under the light (at least 1.2m (4') away), for each plant the cracked shell will start to push up and out of the Jiffy Plug on a thin stem.
- 5. The seedlings can now be transplanted into the 7.5 Litre Hydro Pots. Proceed to the section on Transplanting (page 6).

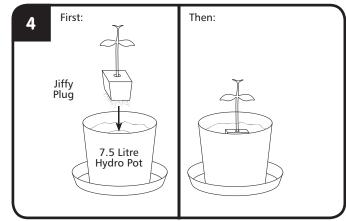
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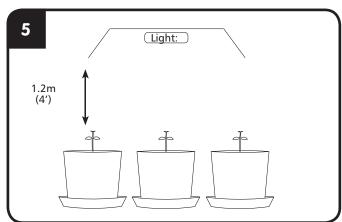


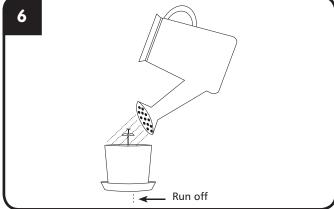
Transplanting into 7.5 Litre Hydro Pots

At this stage you should have some small newly-rooted cuttings or some young seedlings in Jiffy Plugs. Now it's time to transplant these small plantlets into 7.5 Litre Hydro Pots containing Canna Coco growing media. All growing methods are the same for seedling or cutting from this point. Simply follow the guide below.

- 1. Moisten the Canna Coco with a half strength Canna Coco A+B nutrient feed (approximately 2ml of A and 2ml of B per Litre of water). First add the feed to the water, then adjust the pH of the solution to about 6. If the pH is a little high use a few drops of the pH Down to drop the pH of the nutrient solution. The Coco should be wet but not soaking.
- 2. Fill each pot with moistened Coco stopping just short of the top every time - then place them on the saucers provided.
- 3. Push aside the Coco in each pot and gently insert a Jiffy Plug into the space made. Now fill in around the Jiffy Plug and gently firm down to secure the plants in their pots.
- 4. Put the 7.5 Litre pots back under the light. At this stage it should still be about 1.2m (4') above plant tops. If the plants stretch a little toward the light, especially with seedlings, prop them up (using folded paper for example) until the stems have hardened off a little and can support their own weight. It is better to prop up the seedlings rather than having the light too close and damaging them. When the plants are big and strong in a month or so the closest you'll probably want your light will be about 45cm to 60cm away (1'6" to 2'). Until then bring your light down over time in small increments.
- 5. You have now successfully transplanted your plants into their final pots. These will not need watering for 3-4 days. Get used to lifting your pots up to gauge how much moisture is left in them. The weight of the until you get the hang of things. When pots starts to
 - pot will give you a good indication of moisture content feel a little light in weight and look "dry-ish" on the top surface, it's time to feed again.
- 6. Always feed your nutrient solution through the top of the pot until a small amount of run off is achieved through the bottom of the pot. Never leave the pot sitting in any nutrient solution or water.
- 7. Use half strength nutrient solution (2ml of A and 2ml of B per Litre of water) at every watering for the first few weeks of plant growth, as indicated in the instructions on the next page. Wait until the plant is guite big before opting for stronger feeds. Use plant colour as a guide.









Using Your Nutrients

Your kit is supplied with 50 Litres of Canna Coco Coir and 2 Litres of the Canna Coco nutrient (A+B). Canna Coco Coir will provide your plants with the goodness needed for growth and overall development from as soon as you transplant them into it right up until the final week before harvest. The Canna Coco nutrient is a favourite amongst organic growers, containing added Humic and Fulvic acids for improved plant performance. This should be used with Canna Coco Coir from start to finish. The chart below is a guide on how to achieve the best results possible from your plant feed. It also instructs you how and when to supply your plants with a number of other recommended Canna products which are not in the kit. You will find that experimenting with different products is necessary to discover what will work to improve the peformance of your plants (and what won't!). There's no better place to start your trials than with Canna. Try Canna Boost Accelerator for instance, and you can expect to stimulate incredible flowering activity within your plants leading to explosive growth not to mention significantly increased yields - and that's just one of many amazing products waiting to be discovered!







This feed chart is based on a 9 week flowering cycle that is typical of most varieties of chilli, tomato, sweet peppers and squash. For plants requiring a longer flowering cycle, insert extra weeks between weeks 5 & 6 following the week 5 guidelines.

Weeks	-6	-5	-4	-3	-2	-1	1	2	3	4	5	6	7	8	Final Week
Periods	Cuttings & Seedlings		Vegetative Growth				Fruiting/Flowering Growth								
Canna Coco A			15ml	15ml	20ml	20ml	20ml	20ml	20- 30ml	20- 30ml	20- 30ml	20- 30ml	20- 30ml	20ml	
Canna Coco B			15ml	15ml	20ml	20ml	20ml	20ml	20- 30ml	20- 30ml	20- 30ml	20- 30ml	20- 30ml	20ml	
Canna Vega Start	20- 30ml	30- 40ml													
Rhizotonic	40ml	40ml	40ml												
Trichoderma Powder	1 gram per Litre	1 gram per Litre			1 gram per Litre	1 gram per Litre			1 gram per Litre						
Cannazym			25ml	25ml	25ml	25ml	25ml	25ml	25ml	25ml	25ml	25ml	25ml	25ml	
Canna PK13/14											5 - 15ml	5 - 15ml	5 - 15ml		
Canna Boost Accelerator									20- 40ml	20- 40ml	20- 40ml	20- 40ml	20- 40ml	20- 40ml	
Canna Flush*															40ml*

All applications are based on dilution in 10 Litres of water unless otherwise stated

*Only use Canna Flush for the first half of your final week. For the last few days before harvest, use plain water.

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£18.99

£4.99

£8.49

£5 99

£9.95

£3.75

£59.00

£23.99

Recommended Extras

Cannazym 250mls

Clonex 50mls

Canna PK 13/14 250mls

Canna Rhizotonic 250mls

Canna Boost Accelerator 250mls

10g Trichoderma Powder Tri 003

Bluelab (NZH) Nutrient Truncheon (cF)

Heavy Duty Hydor Nutrient Heater 50 Watt

Tips

• Ensure grow room/chamber temperatures do not get too warm during the lights-on cycle.

Top Tips and Recommendations

- Do not use oscillating fans on young plants or if you do keep them on a low setting to avoid wind burn and leaf damage.
- Temperature Most plant species achieve optimum growth in the temperature range of 21°C to 28°C

(71°F to 82°F). Maintaining these temperatures during lights-on is not a problem as your light also provides heat. However it is important to maintain good lights-off temperature as the fall in temperature can diminish yield and plant performance. You may wish to have your lights-on time at night when the ambient temperature is lower and your lights-off time in the day when the ambient temperature is higher. It's often hard to keep temperature down when lights are on. As long as the plants look healthy and are growing every day, don't worry if your growing area seems warm - in summer it's hard to avoid.

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- Always measure air temperature in the shade, away from the light.
- · Humidity The ideal for most plant species is around 50% although your plants should perform and stay healthy as long as you stay between 40% and 80% relative humidity.
- Feed strength will vary from environment to environment and from plant to plant therefore the aboveinformation should be used as a general guide. Signs of under- and over-feeding are outlined below. If you see these symptoms you should increase or decrease the feed strength accordingly.
- · Overfeeding (symptoms) The first signs are the leaves going from a shiny green to a dull dark green with possible leaf tip burn. The main indication will be the leaf tips hooked or curled downward. Nutrientdeficiencies and leaf damage will follow. Remedy - reduce feed strength.
- Underfeeding (symptoms) The plant will generally lighten in colour all over. Many of the big shade leaves lose their colour. There is no leaf curl with this condition. Remedy- increase feed strength slightly. Hopefully the information in these instructions has been of use to you. If you are unsure about something and have a question that needs answering please give the GroWell technical team a call on 0845 345 5176 - it's free and friendly!

Happy gardening!

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