



2024 AUTOPOT GROW GUIDE

Everything you need to know to
get growing with your AutoPot
Watering System



AUTOPOT GROWERS

DEVON CHILLI MAN

Devon Chilli Man cultivates capsicums for UK restaurants, proprietary sauces, and the supply of other sauce producers. They grow using the AutoPot XL System which offers great capacity and adjustability - invaluable features in the Devon microclimate. In Devon the season is longer than elsewhere in the UK but can be subject to variations typical to temperate climes. Plants may require more or less space to develop depending on the prevailing conditions - space the XL amply provides. As irrigation in an AutoPot is plant controlled there is no need for human intervention when conditions vary - vastly reducing the labor involved in plant management.



Crop Type: Chillies (various)
Average Number of Plants per Crop: 550
AutoPot Systems Used: easy2Propagate, 1Pot XL
Crops per year: 1 **Growing Media:** Coco Mix
Nutrients used: Synthetic with Organic Compounds
Yield: 1.5lb/sq ft **Follow:** Insta @devonchilliman

MEDWYN WILLIAMS

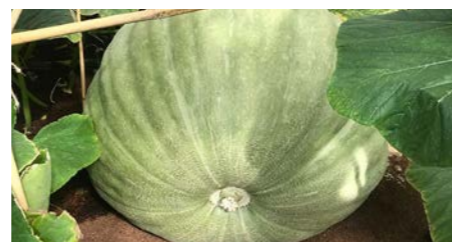
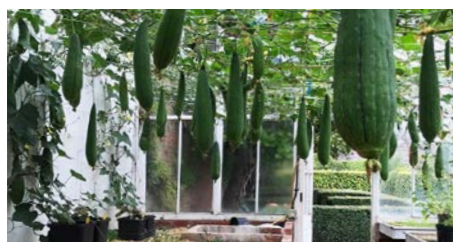
A 13-time RHS Chelsea Gold Medalist, Medwyn Williams is famed for cornucopias of immaculately grown, specimen vegetables. For him the chief prospects of using AutoPot were savings in time and costs, without ever compromising on plant health or veg quality. Medwyn was also intrigued by the potential of AutoPot to act as a leveler where competition growing is concerned. Two years of using the systems have brought about his latest Gold Medal, and confirmed his suspicion; that AutoPot brings the growing of large, exhibition-quality veg onto a level playing field. He predicts that, in future, far more entries on show benches will be AutoPot grown.



Crop Type: Leeks, Onions, Potatoes (with AutoPot)
Greenhouse Size: 2000 sq ft
AutoPot Systems Used: 1Pot XL, 1Pot, easy2grow, easy2propagate **Growing Media:** 100% Coco Coir
Crops Per Year: Multiple **Nutrients Used:** Mineral
Follow: Insta @medwynsofangle

DALE TOTEN

As Resident Gardener at Ston Easton Hall Dale's exacting remit is to grow a plentiful and varied supply of fruit, veg, herbs, and spices for the kitchens. He is also required maintain the beautifully sculpted grounds and demonstrate his horticultural skill in the tradition of the stately home gardener by producing giant and exhibition veg in the glasshouses. The responsiveness and low-maintenance of AutoPot Watering Systems have allowed Dale to rise to these challenges and sweep to victory in veg competitions. Dale has claimed numerous national and world records for giant fruit and veg. Of note are his AQUAbox Spyder-grown 662lb Giant Squash, 213lb Watermelon, and 15oz Chilli, along with a 28lb easy2G0/PlantSkirt-raised cantaloupe.



Crop Type: Giant Squash, Peppers, Loofahs, Aubergines, Tomatoes, Melons, Chillies (with AutoPot)
Records: Giant Squash WR, Chilli WR, Watermelon NR
AutoPot Systems Used: 1Pot XL, AQUAbox Spyder
Growing Media: Light Mix/Coco/Soil
Nutrients Used: Mineral/Organic

AQUAvalve™

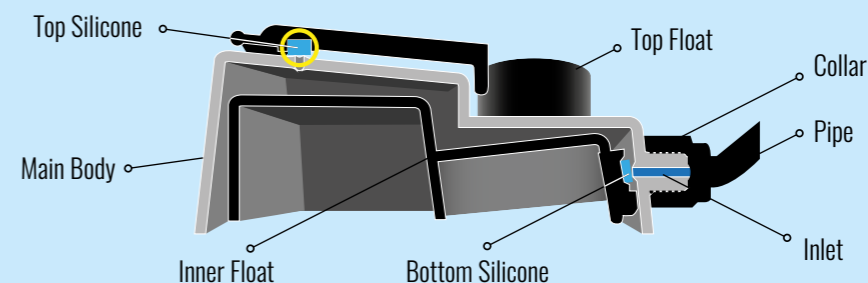


NOW FEATURING 1/4" INLET - 66% BIGGER THAN BEFORE

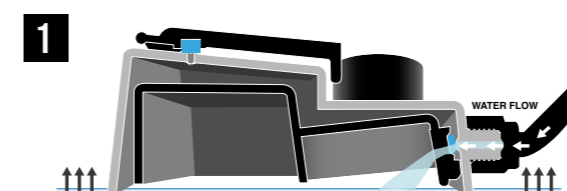
FASTER FLOW, QUICKER FILL & REDUCED RISK OF BLOCKAGES

SUPPLIED AS STANDARD WITH ALL AUTOPOT WATERING SYSTEMS & MODULES

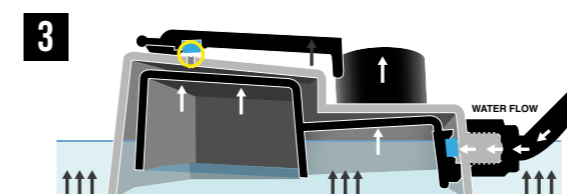
ANATOMY



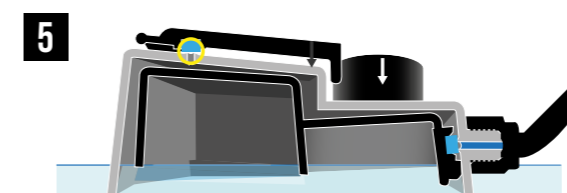
OPERATION



Once the AQUAvalve is positioned in a tray and connected to the water supply and the tap turned on, water will begin to flow into the tray through the AQUAvalve nozzle. The Inner Float will rise a little but the Top Float will remain in position, keeping the hole sealed on the Main Body and preventing the Inner Float from rising further.

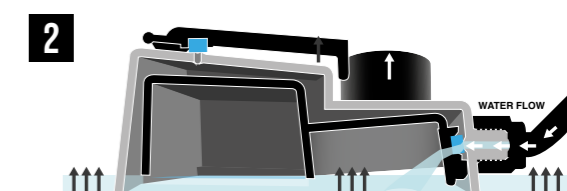


Once the water reaches 1" (half way on the AQUAvalve collar) the Upper Float will lift allowing the trapped air inside the Main Body to escape and simultaneously the Inner Float will rise and cut off the incoming water.

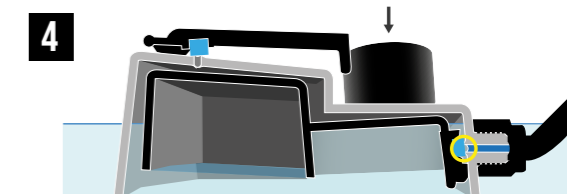


The sealing of the Main Body ensures that there is an air tight seal which in turn creates a vacuum inside the Main Body, this prevents the Inner Float from dropping and preventing any further nutrient solution from entering.

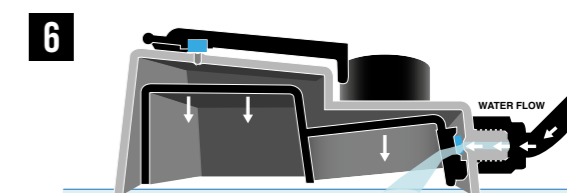
FOR AQUAVALVE CARE AND ADVICE SEE PAGE 13



Trapped air inside the Main Body is unable to escape as the silicone in the Upper Float is creating a seal on the Main Body, water continues to enter into the tray as the Inner Float is unable to shut off due to the trapped air.



As the plants consume the nutrient solution the Top Float begins to drop back down re-sealing the hole on the Main Body creating an air tight seal.



Once the nutrient solution drops below the Main Body of the AQUAvalve the surface tension of the water around the AQUAvalve Main Body will break, this can take up to an hour. The vacuum in the Main Body is then released and the Inner Float drops to a position where the inlet can reopen and the filling process begins again.

STEP 1: ROOT CONTROL

All AutoPot Watering Systems and Modules are supplied with root control. Depending on the system or module, root control may include some combination of PotSock and Root Control Disc (RCD). These are used in the following configurations:

- 1POT:** RCD in tray (gold face up) **GEOPOT / XXL:** PotSock on base of pot (gold face up)
- EASY2GROW:** RCD in pot & PotSock Square on base of pot (both gold face up) **1POT XL:** RCD in pot (gold face down)
- NB:** If growing aggressive plants we suggest using a RCD in the pot (gold face down) & PotSock on the base of the pot (gold face up)



STEP 2: SUBSTRATE CHOICE

A vast range of substrate options are viable with AutoPot. The following represent good examples of substrates that provide the requisite air retention and capillary action. Use quality substrates from reputable brands and ensure the mix is absorbent, light and fluffy. Ensure Clay Pebbles are pH stable or that they have been fully stabilised for at least 48hrs prior to use.



STEP 3: ADDING SUBSTRATE

For good drainage we recommend an AirBase or a 1" / 2.5cm layer of pH stable clay pebbles, pea gravel, Growstones or Perlite No.3 in the base of each pot.

FIRST ADD A BASE FOR DRAINAGE



If using AirDomes place the AirDome on the Root Control Disc inside the pot and carefully pour in Clay Pebbles, GrowStones, or Perlite to the height of the AirDome.

ADD SUBSTRATE UNTIL 1-2" / 2.5-5CM FROM TOP OF THE POT



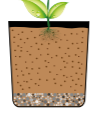
Place your choice of substrates into the pot. Fill until substrate is 1-2" / 2.5-5cm below the top.

STEP 4: PLANT CHOICE

Always ensure an established plant is used when potting up.

Don't place small seedlings directly into the pots. As a general rule:
easy2grow 2.2gal/8.5l - Min. plant height 6"/15cm
1Pot 3.9gal/15l - Min. plant height 9"/22.5cm
XL/GeoPot 6.6gal/25l / 5 gal GeoPot - Min. plant height 12"

ONLY POT UP ESTABLISHED PLANTS



Pot up and with the pot outside the tray, water each pot through. When you see water draining from the bottom of the pot, stop. Allow the pot to drain for 15 mins.

HAND WATER POTS

Before putting pots into trays clean the bottom and sides of each pot to help ensure the valve remains clean and free of substrate.

OUTSIDE OF TRAYS AND ALLOW TO DRAIN

STEP 5: SYSTEM ACTIVATION

At this point the system SHOULD NOT be turned on, allow the plants to establish first. As a guide allow:
5-7 days for easy2grow 2.2gal
7-12 days for 1Pot 3.9 gal
10-14 days for GeoPot/XL/XXL

DO NOT SWITCH THE WATERING SYSTEM ON INITIALLY



During the rooting phase the roots will take up the initial "through-watering" and extend to seek out further moisture. Do not water again until day 5-10 of the rooting phase.

ALLOW PLANTS TIME TO ESTABLISH IN AUTOPOT POTS



Once you're happy the plants have rooted, turn the system on. Feeling the weight of the pots will give you an idea. If heavy plenty of moisture remains to be absorbed by developing roots, if light switch on.

STEP 6: AIRDOME ACTIVATION

DO NOT SWITCH ON AIRDOMES FOR 2-3 WEEKS



If using AirDomes do not activate them straight away, allow 2-3 weeks for the plants to establish before air is blown into the root zone. Always ensure that warm air is blown into the root zone, temperatures between 64°F - 70°F are perfect. Never blow cold or hot air into the root zone.

ONLY BLOW WARM AIR - NEVER HOT OR COLD



If using air domes: place air pumps away from cold floor surfaces and, if the night temperatures in your grow space drop, use a timer to turn off the pump at night.

STEP 7: NUTRIENT CHOICES & FLUSHING

AutoPot Watering Systems can be used with organic or mineral nutrients. As with all watering systems, care must be taken when using nutrients, especially in the case of organics. For full details of nutrient use and suitability see Nutrient Guides. Do not attempt feeding without first consulting these guides.

Flushing is NOT necessary with food crops. With other crops flushing FROM ABOVE is NOT necessary, simply supply plain water from the reservoir to the modules for the last 10-14 days. DO NOT pour water through the top of the pots. Salt build up occurs in the top 1"/2.5cm of the substrate, where it has no detrimental effect on plant growth. Pouring water through the pot at the flushing stage may damage roots due to the toxicity of the salt build up at the top of the substrate.

ESSENTIALS

AutoPot Watering Systems are extremely versatile and can be used with the growing medium / substrate of your choice. In growing trials we have cultivated plants in a vast range of substrates from coral to denim and even pumice stone! Whatever substrate you decide to use make sure the mix is absorbent, light, fluffy and free draining. An ideal substrate for use with AutoPot is a 50% mix of perlite or clay pebbles with either soil or coco. The following guidelines and examples may provide a good basis for substrate success.

- For good drainage we recommend an AirBase or a 1" (maximum depth) layer of pH stable clay pebbles, pea gravel, Growstones or Perlite No.3 in the base of each pot.
 - Whether they are used at the bottom of the pot as additional drainage or as part of a mix, clay pebbles MUST be pH stable. Be aware that certain brands are NOT pH stable and will increase the pH of the water in the tray; this will negatively affect plant growth.
 - Pay close attention to manufacturers instructions where preparation of media is concerned.
 - Always use a good quality soil or coco from a reputable brand. Look for coco that has been buffered and stabilised. If unsure, pot up and pour approx 2.5 gal of pH 5.6 water and ¼ strength feed through each pot - this will instantly stabilize the coco. Allow to drain thoroughly before use.
 - Peat-based composts will compress if used alone, reducing the oxygen content in the root zone. Mix in perlite/clay pebbles/gravel to lighten the compost and improve aeration.
- Consider that, though rich, peat can compress to virtual solidity. On the other hand Perlite will never compress. Try to create a mix that balances richness with aeration.

SUBSTRATE EXAMPLES & KEY QUALITIES

COCO / CLAY PEBBLES



Coco represents a natural, free-draining substrate that can be enhanced with beneficial bacteria and fungi to strengthen the root-zone and accelerate plant growth. The porosity and texture of the pebbles aids water retention, drainage and root-zone oxygenation.

COCO / PERLITE



Irregular, porous and rough surface textures such as those found on perlite granules provide aeration, superb water retention and also excellent drainage. Combined with the natural benefits and microbial enhancements available to coco, such mixes can give great results.

COCO / GROWSTONES



Growstones are made from recycled glass and are engineered to provide high porosity, improved aeration and better drainage of the root zone, while retaining water well. Growstones are alkaline and must be pH stabilized before use. Coco adds an active element to the mix by supporting bio-activity and, it is claimed, by delivering nutrients in synch with the plants requirements.

ROCKWOOL / CLAY PEBBLES



As it is derived from rocks Rockwool is inert and doesn't withhold or repel nutrients selectively in the way that some plant-based substrates can. Therefore it will deliver your nutrient solution in its purest form. However it will require buffering or stabilizing in advance of use. Pebbles provide drainage and water retention.

SOIL / CLAY PEBBLES



Soil is an excellent medium for supporting bio-activity and soil-based substrates are available to a vast number of specifications. A complimentary medium is essential in order to provide drainage, aeration, and prevent compression in the root zone. Clay pebbles are an ideal choice.

SOIL / PERLITE



Combining any one of the huge range of soil-based grow media with perlite can produce a wonderfully diverse, active, and airy mix. Water is retained perfectly whilst still free to drain and the risk of compacting is minimized.

MINERAL NUTRIENTS

If mineral feeding is selected, the liquid or soluble mineral nutrient is simply added to the water in the reservoir in a controlled manner and fed via the pipework to the AQUAvalves in the module trays. From there the plants take up the water/nutrient solution as and when they require it. Feed according to nutrient producers' guidelines.

ORGANIC NUTRIENTS

We recommend the following techniques when using organics with AutoPot Watering Systems - see below for Reservoir Feeding and opposite for Pot Feeding. The arrival of AQUAvalve5 has revolutionized the way in which organics can be fed through AutoPot Watering Systems. For the first time, we can recommend almost constant feeding of liquid organic nutrients, additives, and boosters in solution via the reservoir and pipework. It should be noted that this applies only to systems equipped with AQUAvalve5 and 3/8" pipe and fittings. Earlier model AQUAvalves with 1/4" pipe and fittings cannot feed liquid organics in solution via the reservoir and pipework on a constant basis. The wider apertures of fittings and pipework on AQUAvalve5 equipped systems produce vastly increased flow rates that practically eliminate potential blockages.

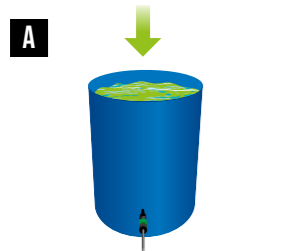
ORGANICS - RESERVOIR FEEDING

Supply of liquid organic feeds from the reservoir via pipework. **Only applicable to AQUAvalve5 equipped systems with 3/8" pipework and fittings.**

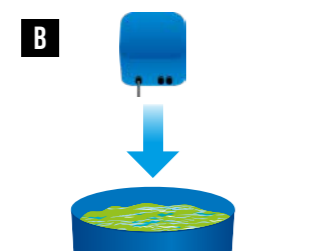
Uses: Employed by organic growers who wish to simplify and automate to the greatest possible degree. Ideal for confined spaces, large numbers of modules and max. automation.

Requirements: Watering system fitted with flush taps at ends of pipework runs. Reservoir to supply liquid organic feed in solution for the duration of the grow. Liquid organic feed.

Step 1. Setting Up

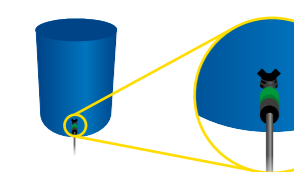


A Fill reservoir with water and liquid organic nutrient. Follow nutrient producer's directions when adding feed.

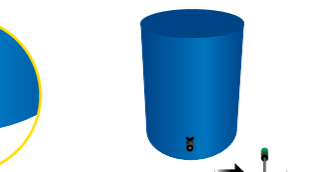


B A water pump should be used in the reservoir to keep the solution moving. It should not be necessary to run the pump constantly. 15mins every 2hrs is ideal.

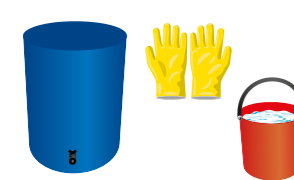
Step 2. Once the reservoir has emptied




A Switch the reservoir off.



B Disconnect the reservoir.

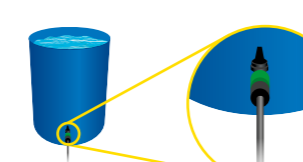


C Clean the reservoir inside. Clean the water pump and inline filter. Reconnect.




D Refill with plain water only.

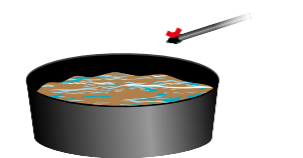
Step 3. Flush the pipework




A Switch the reservoir on.



B Place the flush taps at the ends of pipework runs into a container / safe drainage.

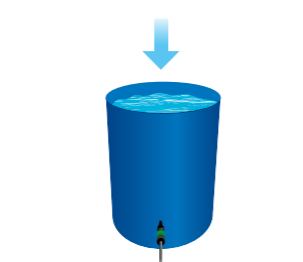


C Open flush taps for 30-60 secs. Allow plain water to flow out until it runs clear.

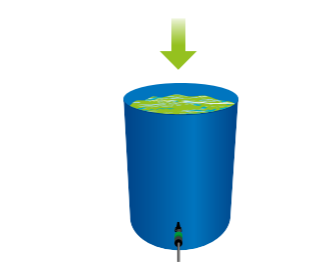


D Close flush taps. Feed plants on plain water from reservoir for 24 hours.

Step 4. 24hrs after flushing



A Top up the reservoir with water as necessary.



B Add liquid organic feed again to correct dosage. Repeat.

Those wishing to grow organically with soil-based nutrients can also do so with AutoPot Watering Systems by Pot Feeding

ORGANICS - POT FEEDING

Use organic time release tabs, organic soils and/or bacteria in the pots. Use the reservoir and pipework to supply water only during the useful lifespan of the soil-based nutrients. Then, if required, for latter stages of growth hand feed organic feeds/teas directly into the trays or employ Reservoir Feeding (see Reservoir Feeding opposite) via the reservoir and pipework.

Organic soils, bacteria and/or soil-based time-release tabs may become depleted after 5-7 weeks. The lifespan of soil or soil-based nutrients will depend on the type of plants being grown and the size of the pot being used. Regardless, an organic liquid supplement may become necessary during the latter stages of growth.

Uses: Employed by those wishing to maximize control, customization and/or use a variety of feed types including organic time release tabs/organic soils and/or bacteria in the pots with teas or organic feeds in latter stages.

Requirements: Watering system and reservoir. Reservoir supplies only plain water for the duration of the grow unless switching to Reservoir Feeding for latter growth stages.

Organic time release tabs/organic soils and/or bacteria in the pots.

Organic teas/boosters/feeds if Hand Feeding latter growth stages.

If Reservoir Feeding in latter growth stages see **Reservoir Feeding Requirements** (opposite).

ORGANICS - POT FEEDING TECHNIQUE

Step 1. Potting Up and Setting Up

- When potting up use organic soils and/or add bacteria and/or organic time release tabs of your choice to the substrate. Reservoir supplies your plants with water only.

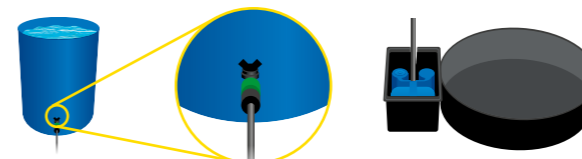


Step 2. If useful lifespan of soil-based nutrients has elapsed

- Either Reservoir Feed. See Reservoir Feeding section (overleaf) for details.
- Or Hand Feed (see below) directly into module trays

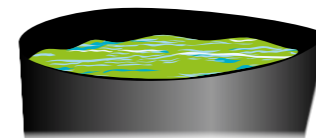
Step 3. Hand Feed organics directly into the trays - Once every 5-7 days

- Switch Reservoir off and allow module trays to run dry - approx 12hrs



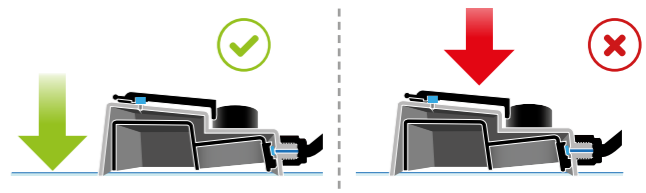
Step 4. 12hrs after switching off Reservoir

- Prepare the organic solution of your choice

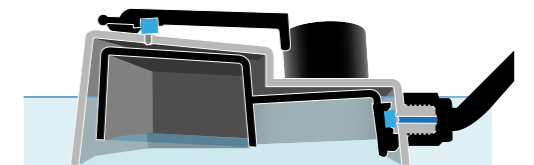


Step 5.

- Using a small watering can or jug, pour the solution in a controlled manner next to the AQUAvalve, NOT ON THE AQUAvalve



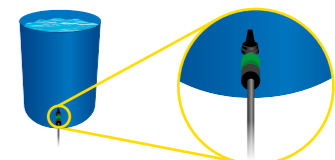
- Fill the tray to the point where the pipe enters the tray and stop
- DO NOT pour the solution into the top of the pot as you will potentially risk flooding the tray and growing area



- Leave the solution to be consumed by the plants in each tray and then repeat the process after 30 minutes

Step 6. 24hrs after feeding/once trays have run dry

- Switch Reservoir on to restore supply of water.
- Repeat process every 4-5 days as required



PREPARATION

CocoMats are an excellent means of irrigating and feeding young plants during propagation. Made of coco fibre and natural latex, the CocoMat controls watering by holding and gradually wicking the water to the plants via capillary action. CocoMats can be cut to fit any size of garden tray. Prepare your CocoMat, place into your tray, followed by a root control sheet and sit small pots, seed trays, plugs, cubes, or root balls on top.

To prepare your CocoMat place it in pH 4.5 water and keep fully submerged to soak for 24-48hrs. During this 24-48hrs the pH of the water may fluctuate as the CocoMat stabilizes. There is no need to compensate for fluctuation in the pH levels. Rinse before use. A root control sheet will be required on top of the CocoMat. To prepare, submerge the root control sheet in water for 30mins. This is merely in order to wet the sheet. It is not necessary to check the water pH during this soak.

SET UP - USING EASY2PROPAGATE WITHOUT AQUAVALVE

Growers can use CocoMat in easy2Propagate with or without AQUAvalve. If not using AQUAvalve simply place the prepared CocoMat in the easy2Propagate tray. Place the prepared root control sheet on top of the CocoMat – gold face up.

Place small pots or seed trays on the surface of the root control sheet. Ensure pots/seed trays are flat based and that they allow the growing media to make contact with the surface of the root control sheet. If using plugs, cubes or root balls ensure that they are in full contact with the root control sheet.

Water through each pot, seed cell, cube, plug, or root ball once from the top. This helps ensure capillary action starts between the surface of the root control sheet and the growing media on the root control sheet. Pour water into the tray until the CocoMat is 2/3 submerged. Quarter strength nutrient solution may be added if required.

To ensure that your plants receive full levels of light remove protective film from easy2Propagate Lid. Place easy2Propagate Lid onto tray ensuring all corners are fitted snugly.

SET UP - USING EASY2PROPAGATE WITH AQUAVALVE

Cut a section out of one corner of the CocoMat using heavy duty scissors, this is to allow a space for the AQUAvalve and AQUAvalve cover to sit on the garden tray. Allow sufficient space for both to fit comfortably - 8" x 5" is ideal. Cutting is easier after the CocoMat has been soaked. Cut an identically sized, identically placed section out of the root control sheet to allow placement of the AQUAvalve and AQUAvalve cover. Place the CocoMat in the easy2Propagate tray. Place the root control sheet on top of the CocoMat gold face up.

Now place small pots or seed trays on the surface of the root control sheet. ensure that pots / seed trays are flat based and that they allow the growing media to make contact with the surface of the root control sheet. Similarly, always ensure that plugs, cubes or root balls are in full contact with the root control sheet.

Water through each pot, seed cell, cube, plug, or root ball once from the top. This will help ensure that capillary action starts between the surface of the root control sheet and the growing media in contact with the root control sheet.

SET UP - THE AQUAVALVE

1 Remove threaded collar from AQUAvalve.

Push one end of the ready-assembled 3/8" Elbow Bar through the collar and attach to AQUAvalve nozzle.

Then replace the AQUAvalve collar.

2 Place the AQUAvalve cover over the AQUAvalve.

The AQUAvalve and cover should be placed directly onto the tray.

Ensure the circular spirit level indicates the tray is level, adjust if required.

3 Cut 3/8" pipe to appropriate length if required. Connect to 3/8" Elbow Bar.

4 Position the 3/8" Elbow Bar so that it routes out of the piping port in the easy2Propagate lid.

Ensure:

- The pipe does not trap
- The lid fits snugly
- AQUAvalve and Cover still sit flat on the tray.

5 Connect to your system using 1/2" or 3/8" fittings.

6 To connect the FlexiTank push 1/2-3/8" Click Fit Adapter and Filter onto the 3/8" pipe.

Then push the Click-Fit Adapter and Filter onto the FlexiTank tap.

OPERATION

There are four vents in the easy2Propagate lid. Initially these should be kept shut to maintain warmth and humidity levels. Later the vents can gradually be opened as small seedlings/cuttings establish a root system and need "hardening off". See illustration below for further details.

Close vents to generate temperature and humidity

If your area is not sufficiently warm use heat pads under the tray or propagation lights above it to warm the water and create humidity.

When to begin opening the vents

Once the seedlings or cuttings have rooted you can begin to gradually open the vents.

Hardening off

Once the vents are fully opened leave for several days prior to removing the lid.

ADVICE

Nutrients - Suitable mineral fertilizers, whether liquid or powdered, can be used if required. Do not attempt to use organic fertilizers when using CocoMats. The CocoMats are designed to deliver nutrients at exactly the gradual rate required by plants at this stage of development. This gradual rate of nutrient uptake is far slower than the rate at which organic nutrients decompose. Organic nutrients will simply fall apart before they reach the plants.

Remember that young plants need less food than established ones. Do not connect your easy2Propagate to an AutoPot growing system that is also feeding established plants.

Water - All water supplied to the propagator, whether enriched with nutrients or not, should have a pH of 5.5-5.6. This pH level best compliments the composition of the CocoMat. The desirable Ec/ppm of the water being supplied will be dependent on the stage of the young plants growth and the substrate used.

Substrates & Pots - Plants or seedlings in pots, seed trays, plugs or cubes can be propagated on CocoMats in an easy2Propagate. If pots or seed trays are chosen they may contain a wide range of substrates or blends - rockwool, soil, coco, perlite, and vermiculite represent just a few examples. If a potted substrate or blend is selected it must contain some ingredient that supports capillary action.

If using raised terracotta or bonsai pots, a small length of capillary matting (not included) can be cut and pushed inside the hole at the bottom of the raised pot. The capillary matting will act as a wick.

Orchids will thrive when using the easy2Propagate but will need to be in net pots or similar, please note that suitable water, such as rain water will need to be used if irrigating Orchids along with a suitable liquid mineral feed.

Temperature - During germination/rooting of cuttings we recommend a target temperature of 70-80°F / 25-30°C with minimum 80% humidity. Once rooted reduce temperature and humidity by 10/15%.

A suitable heat mat can be used under the easy2Propagate tray to help maintain warmth to delicate young plants, if required.

Connection - Multiple easy2Propagate units can be simultaneously fed from a single reservoir. Each propagator can be added as an extension from the main feeding line in a matter of minutes. easy2Propagate incorporates AutoPot AQUAvalve technology so each propagator functions entirely independently of the others, there is no recirculation of water or nutrients, no plumbing is required for waste as the units utilize every drop. Growth in each propagator can commence or cease without impacting other propagators in the system.

Such propagation systems are often created with the use of Danish trolleys and a header reservoir/tank. The Danish trolleys can be used to incorporate lights and/or heat mats and will help maximize growing space. If Danish trolleys are not an option then multiple propagators may still function in a system. Whatever the arrangement, ensure the reservoir is positioned above the highest propagator.

After plants have been potted up and have grown larger the easy2Propagate can continue to be utilized without the dome in order to provide ultra-low maintenance feeding.

TYPES OF RESERVOIR

- AutoPot Watering Systems are supplied with reservoirs specifically selected on the basis of their capacity to serve the number of pots in that system.
- Should you wish to use an alternative reservoir it is simple to do so thanks to our range of click-fit adapters and filters but it is important to ensure you have sufficient capacity.
- AutoPot offer three types of reservoir: Rigid Plastic Reservoirs, FlexiTanks and FlexiTank Pro. Rigid Plastic Reservoirs are supplied with smaller systems. FlexiTanks come as standard with any system of six pots or more (1Pot XL/XL GeoPot) and with any system of eight pots or more (1Pot/easy2grow). FlexiTank Pro is an optional upgrade / separate.
- The guidance below applies to all three types of AutoPot reservoirs. It also applies as a general guide to use of non-AutoPot reservoirs where combined with AutoPot Watering Systems, although we cannot take responsibility for any issues arising from the use of non-AutoPot reservoirs or the use of guidance below in relation to non-AutoPot reservoirs.

SET UP

- Get your reservoir correctly positioned before filling. Never attempt to drag or otherwise reposition a reservoir when in use, regardless of the fill level.
- Gravity pressure is necessary in order for the system to function therefore always raise your reservoir to a minimum of 6" above the highest AQUAvalve5.
- Always use a filter with your reservoir, check filters once a week and clean if necessary - especially if using organics / if in a poor water area.
- Do not place an air stone in the reservoir as this can raise pH levels of the nutrient solution. A water pump may be used to agitate the solution but is not necessary.

OPERATION

- Gravity pressure is necessary in order for the system to function - therefore always raise your tank to a minimum of 6" above the highest AQUAvalve5.
- AQUAvalve5 has revolutionized the way in which organics can be fed through AutoPot Watering Systems. For the first time, we can recommend almost constant feeding of liquid organic nutrients, additives, and boosters in solution via the reservoir and pipework. It should be noted that this applies only to systems equipped with AQUAvalve5 and 3/8" pipe and fittings. Earlier model AQUAvalves with 1/4" pipe and fittings cannot feed liquid organics in solution via the reservoir and pipework on a constant basis. The wider apertures of fittings and pipework on AQUAvalve5 equipped systems produce vastly increased flow rates that practically eliminate potential blockages.
- Re-fill the reservoir when there is approximately a 1/3 of the solution left - NEVER ALLOW THE RESERVOIR TO RUN EMPTY.
- When refilling the reservoir turn the tap off. Refill then leave for 30-60 minutes. Then turn the tap back on. This procedure prevents any sediment being pulled through the pipes whilst refilling.
- Use your reservoir to flush your pots at the end of your growing season. Simply supply pH stable plain water from the reservoir to the modules for the last 10-14 days. DO NOT pour water through the top of the pots. Salt build up occurs in the top 1"2.5cm of the substrate, where it has no detrimental effect on the plants growth. Pouring water through the pot at the flushing stage may damage roots due to the toxicity of the salt build up at the top of the substrate.

WATER & TEMPERATURE

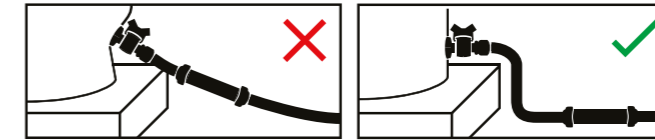
- Generally the reservoir is best positioned outside the growing area.
- Aim for a water temperatures of between 64°F and 70°F in the reservoir
- Aim for a pH of 5.8 if growing with soil or 5.5-5.6 if with coco.
- Always use a filter with your reservoir, check filters once a week and clean if necessary - especially if using organics / if in a poor water area.
- If you are in a hard water area it may be necessary to flush your pipework more than once a week. Hard water reacts more with nutrients creating sediments that can build up.
- We always recommend the use of Water Monitoring devices. Such devices allow you to monitor temperature, pH, and conductivity. They help you read the warning signs before your plants are affected by fluctuations, they can illuminate the causes of changes in growth and, ultimately, they can ensure you get the most from your plants.
- If your water temperatures exceed 21°C / 70° F oxygen content in the water starts to rapidly decrease. This may have an adverse effect on plant health.
- If using organics, additives, or boosters clean the reservoir every time it is almost empty. To do this, disconnect, empty and discard any remaining nutrient, clean the tank out, and refill with pH stable plain water. Reconnect and run with this pH stable plain water for 12/24hrs before adding feed again.

ALL AUTOPOT MODULES & WATERING SYSTEMS

- The entire AutoPot range is now supplied as standard with the improved, large-bore AQUAvalve5 and with 3/8", 3/8"-1/2", and 1/2" pipework and fittings.
- The original AQUAvalve5, the 1/4" pipework and 1/4" fittings previously supplied with AutoPot Watering Systems are still available as spares, as are 1/2"-1/4" fittings.
- Newly sold Tray Systems, AQUAbox Straight, AQUAbox Spyder, and 12.4 gal reservoirs are drilled out to accept 3/8" pipe and fittings.



- FILTERS**
- Always use a filter with your reservoir, check filters once a week and clean if necessary - especially if using organics / if in a poor water area.
 - Wash filter material in mild soap and lukewarm water or in dilute hydrogen peroxide
 - Once disassembled the filter bodies can be washed in mild soap and lukewarm water, in dilute hydrogen peroxide, or in a dishwasher
 - Depending on the condition of your filter replace every 5 yrs. Golf Filters feature a replaceable material available separately from AutoPot.



If elevating your FlexiTank on a stand, connect your inline filter so it is further down the 1/2" piping and not next to the tank. Installing the inline filter too close to the FlexiTank will pull at the material and may create leaks.

AQUAVALVE Ensuring that the AQUAvalve floods and drains correctly



- Ensure the two silicones are in place. Hold the AQUAvalve at eye level so that you can see the silicone fitted to the top float resting on the hole below it. The silicone must create a tight seal when touching the hole. If it looks like it is not sitting parallel to the hole below, simply lift the top float and apply pressure to one side of the silicone, drop the float and hold at eye level again. Repeat the procedure if necessary.
- Ensure the AQUAvalve is secured to the tray. If using AutoPot trays position the half-moon on the bottom of the AQUAvalve over the T-section in the tray, push down firmly on the main body only. If using in a garden tray place an AQUAvalve Cover over the AQUAvalve.

Cleaning

- AQUAvalve is easily disassembled. Held vertically the top float will slide all the way across. The bottom float unclips from its pivot position.
- Ensure that silicones are removed from the AQUAvalve before cleaning and are only replaced when the AQUAvalve is completely dry.
- AQUAvalves can be scrubbed using a toothbrush or even placed in the dishwasher.
- Blowing through the AQUAvalve nozzle or use of a pipe cleaner or paperclip will help remove any build up that has occurred.
- When disassembling the system dip the still-connected AQUAvalve and pipe in hot water to ease separation. Once loosened remove the pipework by pulling it directly away from the nozzle. Avoid twisting/wiggling the end of the pipe away from the nozzle.
- Do not under any circumstances use a drill to clear the AQUAvalve nozzle. This will potentially damage the AQUAvalve beyond repair.



FITTINGS

- Utilize the flush taps at the ends of the pipework to help keep the system clean and free of sediment. To do so open each tap into a bucket or similar for 30 secs-1 min. Do this once a week if using mineral nutrient. Ideally undertake once you have re-filled your reservoir and allowed it to settle for an hour. A full reservoir provides you with the maximum pressure to flush.
- AutoPot only supply and only recommend official AutoPot-branded fittings for use with AutoPot Watering Systems.



PIPEWORK

- Dip the end of your pipe in hot water before connecting to fittings. This will soften the pipe and allow you to connect fittings with ease.
- When disassembling the system dip the still-connected fitting and pipe in hot water to ease separation.
- If using mineral additives or organics in a larger system you may wish to use a line cleaner such as D-Block, Drip Clean or Keep It Clean. With regular plain water flushing this should not be absolutely necessary but remains an option if desired.



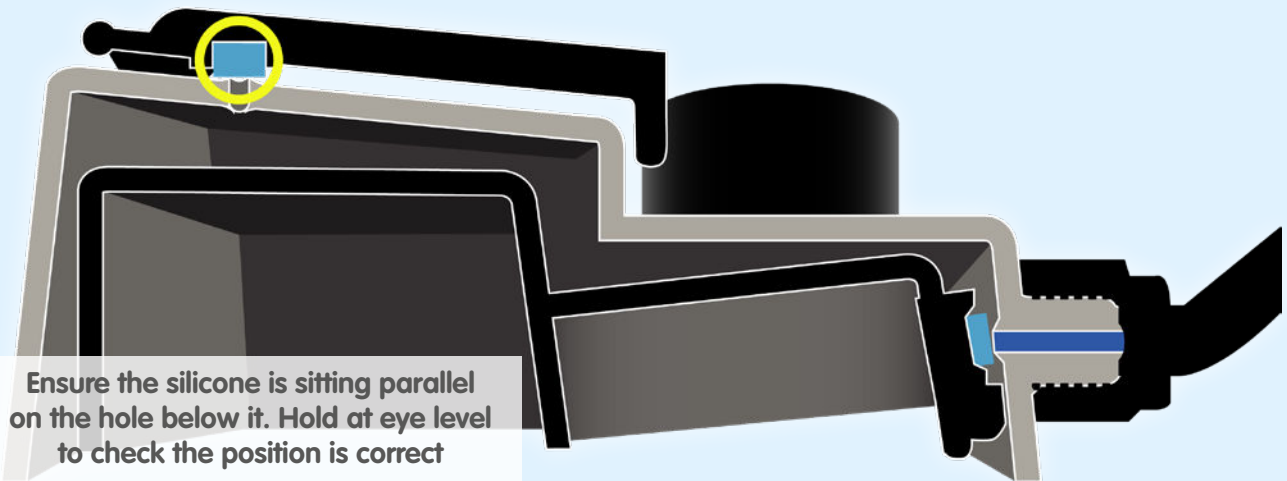
GeoPots

- Available in a 3 gallon or 5 gallon size, GeoPots are incredibly durable and can be reused repeatedly. They can also be washed if desired.
- Powdery green or white discoloration can occur on the outside of the pot but is entirely natural. It is merely salt or mineral build up.
- Empty after using and let the pot dry. After a few days remaining debris will easily brush off. At this point the pot is ready for reuse.
- If desired, growers can then also wash the bags in peroxide to sterilize - either in a washing machine or dipped in a tub.
- Allow to dry naturally. Do not put GeoPots in a tumble dryer.



PLASTIC POTS

- Always clean the side and bottom of each pot before you place in the tray, this will remove any soil particles and ensure your system is clean. In turn ensuring your AQUAvalve5 is kept clean and free of growing media - especially if growing with Perlite.
- The 3.9 gal pots used in the 1Pot module and the 2.2 gal pots used in the easy2grow module are interchangeable and can be used in either tray.
- Don't place trays on cold concrete floors, water in the tray will be chilled from below and will effect plant growth. Consider placing polystyrene, cardboard under each tray to ensure the water temperature in the tray is not affected. Always ensure trays are level.



Ensuring that the AQUAvalve5 floods and drains correctly

- 1 Making sure your AQUAvalve5 floods and drains correctly is simply achieved and only takes a few seconds.
- 2 Hold the AQUAvalve5 at eye level so that you can see the silicone fitted to the top float resting on the hole below it.
- 3 The silicone must create a tight seal when touching the hole.
- 4 If it looks like it is not sitting parallel on the hole below, simply lift the top float and apply pressure to one side of the silicone, drop the float and hold at eye level again. Repeat the procedure if necessary.

Care and maintenance

- 1 At the end of your growing season, clean the AQUAvalve5 using warm soapy water. Using an old tooth brush will help.

The AQUAvalve5 is easily disassembled. The top float will slide all the way across and the bottom float is unclipped from its pivoting position. The circular discs fitted to the top float can also be removed by using pliers to grip the raised point.

At this point it is advisable to remove the silicones to avoid them being lost.
- 2 It is also handy to have a paper clip or pipe cleaner to hand so that you can push it through the AQUAvalve5 nozzle, this will remove any lime scale build up that may have occurred during the growing season.

Blowing through the AQUAvalve5 nozzle will also help to remove any build up. Do not under any circumstances use a drill & drill bit to clear the AQUAvalve5 nozzle.

This will potentially damage the AQUAvalve5 beyond repair.