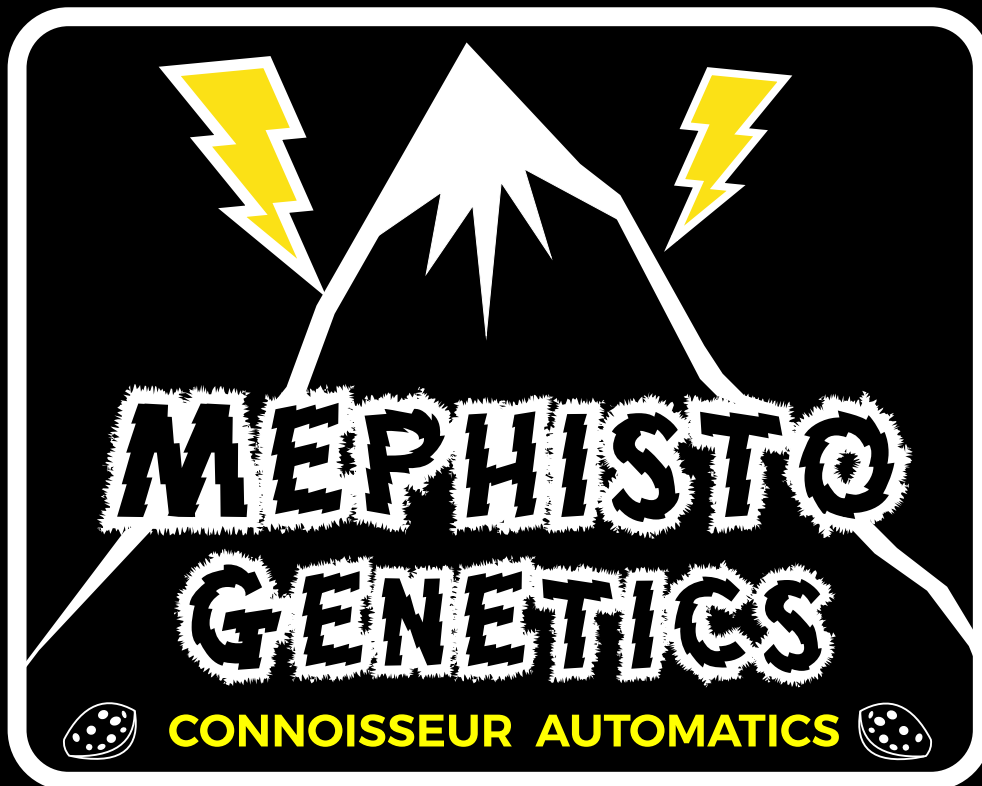


# Mephisto 2017 Grow Guide

Basic info to show the Mephisto way of growing.



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# Mephisto Grow Guide Intro



**Hey guys, welcome to the Mephisto 2017 Basic Grow Guide.**

**In this document you can find the basic methods we use ourselves in order to get nice results from our gear.**

**We frequently get many repeat questions about the correct way to do things, and just being a couple of dudes busy with our hands in plants all day long, it's not too easy these-days to answer everything as detailed as we'd like to on a case to case basis.**

**Please treat anything here as a guide only - not gospel. Everyone eventually finds their own methods and what works best for them, but this could be a good starting point for the less experienced growers in general, or those just new to Auto-flowers.**

**Any information contained in this document is strictly provided for educational purposes, unless you're in a legal state/country and permitted to grow.**

**Stay safe, have fun and most importantly have a great time with our gear and your plants.**

**The Mephisto Genetics Team.**

## Growing the Mephisto way

After years of working with Autos, this guide is basically to give a quick insight into how we grow our own strains, to cover some of the fundamentals related to growing autos and some tips that can help you out towards a successful grow.

This is not a fully comprehensive guide pertaining to every way possible to grow, there are of course many more ways than one to skin the proverbial cat. We will over time be adding to and refining this guide, but all good things take time.

For the best auto resource available today anywhere, we highly recommend checking out the autoflower network - A very helpful community [HERE](#) and some really knowledgeable folks that are always willing to assist and may help you figure out the finer details unique to you that are not covered here.

### About Us

We have well over a decade of experience growing autos (mostly indoors), during that time we've trialed and experimented with many things, and as you'd expect have learnt a great deal along the way. Therefore this guide will primarily focus on indoor.

As a company now specialising in developing and producing autoflowers only, we're a very small team that has to manage more than our fair share of plants. To make this do-able the key for us is to work smarter not harder, which dictates a lot of the methods we use.

By keeping things as simple as possible and still getting nice results we've got the best of both worlds. Growing quality flowers with relative ease, and the number of products we use from seed to harvest can be counted on just one hand.

These are all store-bought items, and if anyone wants to replicate our methods it's easy! They also make a good basis to build upon should you then want to shower your plants with extra love, affection and products.

# **Correct Seed Storage**

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## **Before you get your seeds!**

**We take every care possible during the seed making process to ensure healthy seeds and to provide the highest quality product for your autoflowering experience.**

**A seed run requires a great deal of work and time. The process just to reproduce an existing strain runs right around 21 weeks start to finish.**

### **This incorporates;**

- 5 weeks growth (from sprout) to the point of pollination**
- 5 weeks for seeds to mature in plants**
- 1 week to dry post harvest**
- 1 week to dry after seeds are extracted**
- 2 days to fine sort each strain**
- 4 weeks shelf time to ensure maximum viability**
- 1 week germination test of a 100 seed sample test batch**
- 2 weeks shipping time to reach our distribution points.**

**(Seeds are only made available if germination rates exceed 90% using our germination technique)**

**Once the strain is at our own distribution points, they are kept refrigerated in a sealed container at a stable temperature.**

**(If that looks like a long process; To develop a new auto strain from scratch is usually a matter of years!)**

# **Correct Seed Storage**

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## **What to do when you receive your beans?**

**Look after your seeds!** - If you don't plan to grow them straight away or can only grow a few at a time, you may wonder where to keep them or how to store them for best longevity.

Simply put. Quality Seeds will easily survive for several years in a cool, dark, dry place.

Keep them sealed in the vial they are packaged in, and that vial inside the zip-lock packaging somewhere as just described above.

Cooler than room temperature is an ideal starting point. Use your head. Keep them out of sunlight or somewhere that might quickly get hotter than you think. Stable cool temperatures are best.

For even longer term storage keep your seeds refrigerated. The same key rules apply. No moisture, well sealed and seeds will easily keep for over 5 years.

We don't have 'old stock' - We don't produce seeds in huge quantities so strains cycle in and out of stock pretty frequently when you buy directly from Mephisto.

Stock is replenished at least yearly, often bi-annually to ensure you as a customer only receive the most viable products possible.

# Germination Method

Over the course of a year we germinate 1000's of seeds, between project runs, reproduction runs and germination testing.

This is our method which we use religiously, and we always get fantastic results.

Just as with growing a plant getting the environment spot on is key.

**Too hot** - Your seeds are going to have a bad time.

**Too cold** - Your seeds are going to have a bad time.

**Too dry** - Your seeds are going to have a bad time.

**Too wet** - You get the picture.

Usually with this method seeds are with a nice tail and able to be potted between 36 - 60 hours, however if for example it's too cold in the environment we've seen seeds taking upwards of 120 hours to germinate. Not ideal, but please don't throw seeds away if they don't look to be doing anything after 24-48 hours. Check the above points and keep trying.

if your germination environment is not on point, it will take longer. Also one strain could germinate faster than another, but just because they don't germinate at the exact same time doesn't mean it won't germinate.

Please see overleaf for our 8 step process. 8 steps? - Yes it may sound a faff around, but really it's very simple and it works!

Seeds are valuable! so unless you already have a nice technique dialled in. Please have a go.

This method works for us, as we always need our spaces full, we can't waste space on pots with seeds that may not come up or sprout at different times. So we pot up all at once, with seeds that are at the same stage of germination so we're most likely to get every sprout break ground on the same day, meaning throughout the grow plants are always at the same exact stage. Even a few days with autos makes a big difference!

# Germination Method

**Step 1** - Take a length of toilet tissue of nice quality - 4 squares together is usually enough, fold in half twice so you're left with one square of a nice thickness.

**Step 2** - Take a spray bottle, fill with tap water and mist your tissue.

**Step 3** - Add seeds, Fold over once again, and mist your tissue package of seeds until it is soaked through.

**Step 4** - Place in a DVD case and seal.

**Step 5** - Wrap in an article of clothing which will insulate the DVD case and seeds within nicely.

**Step 6** - Place this somewhere warm with stable temperatures. For example the top of a grow tent on 24/0 works very well.

**Step 7** - After 24-36 hours you may want to unwrap to check on the progress, re-wet the tissue if necessary, and flip the package over.

**Step 8** - Ready to plant!

People say not to touch seeds and their tails with your fingers...and to use tweezers.. In our experience it's really not necessary to go to that level of baby-ing. Picking up the germinated seed with the helmet is fine. Just take care.

Sometimes seeds even germinate too quickly with this method and can catch you off guard advancing too much, they can shed their shell within the tissue, this is also okay, Just be gentle when planting and handling them.



# The Auto Learning curve

There's a definite misconception doing the rounds that autos are easy to grow and for beginners. This for sure isn't true, in fact because autos decide when they want to flower you have less control, and if there are environmental problems early on there's little to no window to correct issues, and that can and will dictate the end result.

The key weeks in our minds are the first three from sprout to seedling, to sexing, you nail those and see the plant is established well, and it's really relative plain sailing after that to ride the grow out and get to enjoy the fruits of your labour. To get through this first crucial stage you need to have the following key elements dialled in. So your weedlings have a good time.

**Don't over or underwater.** - Keep the medium a little moist at all times but not sodden.

**Don't over feed or under-feed.** - In organic soil they don't want for much during these first two weeks. We just plain water.

**Temperatures must be kept in range. Not too hot, not too cold.** Too hot you risk drying out the medium too quickly. Too cold will stunt and slow plants at any point in the grow. Imagine they are put into stasis.

With those in place you'll be well on the road to success. Like anything new, it will take several grows to learn both your environment and autos..., The bonus is they are QUICK! it's basically magic to watch the development everyday in comparison to photoperiods.

The following info is directly what we do with our methods! Your initial medium should be a high quality seedling mix, light in nutrients and light in composition, the root system of autos develops very rapidly indeed. Soil should drain at an adequate rate, not too fast, not too slowly, this is to not inhibit your root development, and don't let them dry out too much either. If you hurt your plant during this stage stunting will be inevitable and this will drastically halt the potential in the genetics.

## The Auto Learning curve

We use biobizz lightmix as a starter soil, and have done for over 10 years. If it's not broken, don't fix it. Other similar soils are plagron lightmix. It's cheap enough, we can do 30 1.5 liter pots from a 50 liter bag which is 10 euros approx.

For a stateside alternative (if the above options aren't available) roots organic is a chosen medium recommended.

We start our plants in 1.5 liter square pots, with lightmix, and until we see the first signs of sex at around 2-2.5 weeks from sprout, plants receive only plain water. We start in small pots like this so we can have nice numbers of plants for selection either from fems or regulars, however this may not suit the average grower.

If you're wanting to start in your final pot size and negate the transplant element, consider doing a raised/tiered transplant or having a split medium. Put the lighter soil in the top half of your container, and a more nutrient rich soil in the bottom half, so once plants are established they can start to draw nutrients from the reserves in the bottom, at which point with organics they will be way more resilient to stunting or being overfed.

For the bottom half of your container medium, or a soil to transplant into we would recommend biobizz allmix. Or you could build a custom soil with just a few ingredients that will last for the entirety of the grow and would be able to be recycled for future use (cheaper and more discreet if you're working with larger numbers)

The point we will keep stressing here is simplicity, getting your ingredients right, environment right and methods right is half the battle already won.

We never PH in organics, ever. Not before feeding, nor after feeding. The medium is the buffer, so that's why it's key to start with a suitable one.

We would however recommend initially checking your water source.

# Light cycles for Autos

Light cycles to us, are basically personal preference. Autos will grow under a variety of cycles and options, however we would recommend no less than 18 hours on for indoor growing to obtain optimum results, and of course all the way up to 24 hours.

Some people want to save electricity costs, or 'give their plants a break' which is fine thinking, however we typically run 24/0 more often than not, we find it gives no reduction in quality, plants always seem happy, and in our experience development is quicker and shaves some days off the overall cycle time. However, please draw your own conclusions and see what works best for you.

Lighting cycles are also where the flexibility of autos can allow you to play with the light cycles in order to alter your environment for the better.

Typically in the cooler seasons/months, we'll run 24/0 to keep temperatures stable where otherwise the grow environment may be subject to big temperature swings during the on and off cycles. Then in summer, if you wish to be indoors all year round, you can put lights out during the hottest part of the day, and those 6 hours of downtime can be a nice bit of respite for your ladies.

**12/12?** - it is possible, however personally we wouldn't initiate it out of choice, the end result will suffer. If there's no other option, then waiting until you enter week 4 would be the lesser of two evils. 12/12 from seed is not a good solution, as you're limiting potential growth in those key first weeks as mentioned on the previous page.

**Indoor/outdoor?** - This is also a possibility for people who have a nice summer season, you can take your plants out (where safe to do so) and have a mixture of natural sunlight with supplemental light during the evenings, and save on electricity costs. Of course this requires effort and won't suit everyone, please be aware too that you could bring in unwanted nasties from outdoor. But this is purely to state that it is a viable option.

# Light cycles for Autos

**Light leaks?** - This is another benefit of autos.

Of course, having a light proof area is preferable to give you the flexibility to run photo periods without breaking a sweat either.

However, whilst running auto's we've never seen a detrimental effect to exposing them to light leaks, also at the farm we can be subject to power outages - leaving plants in darkness for extended periods of time, or then consequently timers being out of sync. Again, our autos never flinch at this treatment.

As much as you may want to control everything indoors and have the perfect environment, life has a habit of throwing us curveballs.

# Lighting Types

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We grow primarily under old school HPS lighting with adjustable digital ballasts - From day 1 above ground to week 2-2.5 at transplant we find 400w of hps is pretty adequate to cover a 4x4 area and see good levels of growth using a high number of plants. After transplant we switch up to 600w which really enables a nice amount of growth and has sufficient penetration (depending on reflector type) and coverage for all sizes of strain grown in this given area.

**MH or Not?** - In the past we used to use a Metal Halide for these first two to three weeks, Now we have many more lights to manage we don't bother swapping bulbs, the results from doing this are negligible. HPS will grow plants just fine from day 1 to harvest. Having plants packed together however HPS will give you stretchier girls with larger inter-nodal distances in comparison to using more natural daylight/blue heavier spectrums.

**CMH?** - We've been trialing 315w CMH fixtures for several runs now and have been largely very impressed by this lighting type, using approximately half of the power of a 600w the plant health, flower development and trichome production is highly impressive, however they do run cooler and don't give out the heat associated with higher wattage fixtures, which in colder months might see the plants not perform as well. But this may be the opposite case in summer.

**DE-HPS?** - Double ended HPS fixtures can again be very impressive for yield vs power consumed and have good levels of adjustment either manually switchable or they can be automatically electronically controlled with a standalone unit. We have found that one DE-HPS will light up a 4x8 well, and produce healthy plants with thick flowers.

**LED and COBS** - Many, many of our customers use these units with stunning results. Trichome production is often pretty fierce indeed, and for smaller areas these lights can be a very nice low powered solution to growing some quality plants. For us we just use some low powered units for males/cuttings where necessary.

# Lighting Types

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**Combining Lighting types** - Often lighting types come with both pros and cons, heat vs lumens, par levels and spectrum, cost.. and so on. One solution to some really happy plants can be to combine lighting types.

**General** - We have found that lighting, although of course a critical element to your grow, if your temperatures and general environment is out of whack, lighting is not going to make or break your grow. You can throw a lot of light at the problem but unless your temps and ventilation is in check, plants can stall and severely inhibit the end result, and add weeks to the cycle time.

# Container Styles

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We have trailed many options for container types and sizes over the years, we have now settled on 12 liter square plastic pots that essentially suit all strain sizes from small to large in conjunction with drippers to feed with plain water. Again this is a case of what is working best for us right now.

**Square plastic pots** - The benefits of this style container is that they can be arranged together in high numbers per the space easily, or if you have lower plant densities, spread them out in to the rows you desire. You can achieve good growth with these, they are cheap and pretty durable. Most strains when grown well will fill these with roots. Larger strains may need feeding every other day during the mid-late grow stages. (In reference to a 12 liter.) However depending on the strain anything from 7 liter up to 25 liters are viable options.

**Airpots** - Amazing growth rates can be achieved with these, through the way the roots are air-pruned. They can be expensive if you need to buy many, they can also be tricky to feed and they will dry out quickly. Also being round and having the 'spikes' around the circumference, they aren't totally space efficient and can be difficult to arrange in a tighter configuration.

**Smartpots** - Nice growth can be achieved in these, but again being round, not ideal if you're going for a tight arrangement or SOG style. The handles are handy and make it easy to carry plants around if that's a consideration. You do need to take care when both filling and watering in with these pots as soil can become uneven, or collapse in areas before they're rooted out. Also they're less compliant as a container. When temps are too hot they can dry out quickly, when temps are too cold they can remain sodden for too long as the material absorbs water.

**Home-made grow bags** - If on a really tight budget you can use plastic grow bags which are super cheap, or even cheaper still you can re-use the bag your soil came in as a pot, roll it down and put some drainage holes in the bottom, you can also fabricate some handles using sellotape.

## Pot Sizes

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Pot sizing for autos is a very important consideration, as it will dictate how your plant grows. In combination with medium type and strain choice being other key factors to this decision.

If growing in coco for example you can obtain a monster plant from just 1 gallon of medium. But this requires daily or twice daily feeding in many cases, and essentially being an inert medium it's hydro in effect. More effort than soil, but the effort pays off.

In soil personally we choose an end pot size of 12 litres, which will accommodate most strains well enough paired with our single transplant at sex.

For a small strain in soil if doing a micro grow, or running high plant densities a 5-6 liter pot can suffice.

For larger strains in soil a 15-18 liter will pay dividends if you have space to let them stretch their legs.

Above this size is also possible, but usually for a certain environment there's a trade off between what the plant will really make use of, but it is also strain dependent. Bigger containers \*usually\* result in bigger plants, as an auto being confined by a smaller container and roots finding a stopping point for expansion and development is a definite trigger for the on-set of flowering.

Beds of soil can also yield really nice results as it provides a large volume of medium for the plants root system to explore, however the downside is that you lose the flexibility of being able to rotate, move plants or treat them as individuals, which for perpetual growing can be a pain.

When people grow in DWC this is where you can observe the true potential of an auto strain when it's root system is unhindered, again you'll see a way bigger plant and end yield but also it will extend the overall growth time somewhat. Often by a couple of weeks.



# Transplanting Autos

This is a technique not commonly practised with autoflowers. However it is something we do 90-95% of the time and with good results too.

The primary reason we do this is for breeding.

We start up to 72 plants in a 4x4 space when working with regulars. This means that with the laws of averages half will be females. This then gives approximately 36 females to select from to be potted up and grown out further.

A 1.5 liter square pot fits this space edge to edge with the numbers mentioned. Again for us, to take the plant up to sexing this is a nice size. Smaller and it will stunt plants, bigger and the root mass hasn't colonised the pot properly meaning the soil can collapse when transplanted.

There is a slight black art to transplanting, and it's all about timing. We do it at the very first sign of sexing, before it would be obvious to most people. When the very first pre-flowers emerge and are just visible to the naked eye at about 1-2 mm. This requires being very vigilant at checking the plants over during the period they will show sex. For smaller strains this can be as early as 12 days, up to 17 typically in this pot size for larger strains.

For every day growers, many people would prefer not to risk the potential risk of stunting and plant directly into their final chosen pot size. This does also require care with watering until the plant gets fully established. but you will likely achieve bigger plants.

**Raised transplants?** - in the past we trialed raised transplants with good success, this was using 2L pop bottles cut down, and holes drilled in the bottom, then when plants had sexed the bottom could be cut out and it was transplant time.

Another common method either raised or buried in, is to use a solo cup, for the first 7 days it makes watering easier, then that's the key time to transplant without hindering that precious taproot and risking stunting.

# **Plant arrangements**

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People frequently ask, how many plants to run in their space? Well, this is always an incredibly tricky question to answer, as there are so many variables at play. Basically it comes down to personal preference, you can get very nice results from countless arrangements. I would order the decision making process by the following thoughts.

It comes down to strain, first and foremost, if it's a small strain by nature, it's better to pack them in and thin them out rather than have too much vacant space.

Small strains, we have grown at densities up to 36 per 4x4 space in 5 liter pots. Yields can be high, but this is a crowded mini jungle to maintain, and takes a lot of work. We would call this an AF-SOG (autoflower sea-of-green)

Then as strains increase in size potential, medium or large varieties, the pot size can be increased and the plants spaced out to make the most of their size and branching.

The lowest plant density/arrangement that we personally run is 6 plants in 18 liter pots, we can then employ training or let nature take it's course and still really maximise their potential as individual specimens.

Considerations are, the more plants, the more work, less plants gives easy access to all, and allows more direct care to each plant. For breeding purposes we have females at densities commonly around 20 per light, this allows us to see who's the fittest of the bunch, the more plants you have in this case, the better it is to pick out the ones that fight and truly shine.

For flowers only, 9 per light in 12-15 liter pots is a nice workable number, you have flexibility to arrange them and basically manipulate the canopy to your advantage.

For a new grower, we'd suggest not going for the 'baptism of fire' approach and learn with less numbers but plants done properly. Then over time you can figure out the numbers that specifically work for you; the worker, your setup, your likes and your unique environment.

# Nutrition

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Another frequent question is; **do we have a nutrient schedule for our autos?**

These days, the answer is **no**.

We used to use biobizz liquid organics in combinations with their soils. We now just use biobizz lightmix to start our autos, and then as a base to build a soil to last the entirety of the grow. Again, it comes down to two factors, Time and effort.

Having to mix up nutrients every time we wanted to feed, to suit just one small batch of specific plants when we have plants at all stages from seedling to being harvest-able, It would be impossible on our scale.

**So..what's the solution?** - Water only! - We use **BIOTABS** , a slow release organic fertilizer in the form of a tablet, it's super simple. We pop one under the rootmass when transplanting, or if we were planting direct to final pot we would wait until 2-3 weeks and at that point in a 12 liter pot we'd put 2 biotabs 5cm down under the soil surface, either side of the plant.

The tab takes about a week to become activated through watering, then each watering after that, the nutrients contained within are released into the soil and made available to your plant. This is incredibly simple, it has taken a massive load off our day to day tasks and in effect, has really changed our lives.

The cost isn't expensive when compared to buying a range of bottled nutrients to use in combination.

This really falls in line with our keep it simple methodology. And getting frosty aromatic plants with a nice yield that's all organic.. what's better?

Also as breeders, this helps us assess and pick out those plants that really shine. Then if you choose to adorn your plants with other products and love you'll really see something special. The other solution available to U.S customers, is our **SUPER SOIL MIX**

# **Super Soil Amendment Mix**

**This is another super easy way to feed and nourish autos used by the Mephisto team,**

**This mix was created to provide a really simple way of growing superb quality flowers for growers of all skill levels. After years of testing and tweaking the recipe with our genetics this is our completely organic full spectrum NPK, concentrated amendment.**

**To use, we either add a sachet of mix to a 1.5 cubic Ft bag of quality potting/seedling soil (We recommend something not too heavily fertilised, and nice and airy in composition) or alternatively add at a ratio of Two Tablespoons to each gallon of soil and mix very thoroughly to make sure it is evenly dispersed.**

**That soil then becomes the amended 'Super-Soil'. We then fill the bottom half of the container with this, and then fill the top half of the container with quality potting/seedling soil straight from the bag, and plant!**

**As the plant becomes established it will reach the super soil part of the container and up-take the nutrients being released as it needs.**

**Plain water is applied throughout the grow and the autos thrive.**

## **Should you add and use anything else?**

**If desired you can add 30% EWC (earth worm castings/worm humus) to your substrate, and for extra goodness you may wish to supplement and brew tea's for your plants, however this isn't necessary to still achieve good results. These are just bonuses to keep in mind should you choose.**

## **If you're not going to use the whole sachet at once?**

**Similar to storing seeds, keep the mix sealed and in a cool, dark, dry area and it will keep for up to a couple of years in this form.**

# **Soil Recycling**

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**Working exclusively with organic soils, and having our farm in a very rural place, meant it made more sense to recycle rather than keep re-buying fresh for each run.**

**It does take a little labour and some patience, but you can save a substantial amount of money by re-cycling and still get great results.**

**So when a run is complete, for example the very first run, which used biobizz lightmix to start the autos and transplanted into all-mix. we will harvest, being left with just the root mass and base of the stem in the pot. We will break down the soil from all pots, removing any large clumps of roots, filling a large container (soil store) then we'll water it and cover it.**

**We'll leave this for about 1 month to break down, once a week we'll turn over the soil quickly and check if it needs to be re-wet.**

**Then it's amendment time! We work with a capacity of 270 liters, we add: 5 liters of fresh perlite, 12.5 liters of Worm humus, and 300 grams of powdered bat guano.**

**This is thoroughly mixed in, the soil store is covered again, moistened and left to sit for another 1-2 weeks ideally, but it can be mixed and immediately filled into pots with no adverse effects.**

**The cost is approximately 15 euros to amend and recycle 6-7 bags of soil, which if buying fresh would cost 90 - 100 euros.**

**You do save a trip to the grow store.**

**You can also re-cycle almost indefinitely, as for us, we're always adding fresh lightmix into the soil. You may want to consider adding dolomite lime, and there are other off the shelf soil 'superchargers' you might consider to add, one we use every now and then is Black Pearl - by Growtek.**

# Cycle times

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People often ask about the heavy yielding varieties and what are the quickest finishing varieties.. well those two things in combination would be the holy grail!

With autos, there's a trade off - the smaller strains finish fastest, they sex earlier, enter flowering more quickly and then flower harder, resulting in a shorter overall cycle time.

At the opposite end of the sizing spectrum, larger strains have an extended seedling/veg/pre-flower stage, they will grow larger and yield more heavily, with just those few days to a week of extra vegetative period but then that gets added to the overall timescale.

The auto life cycle / cycle time can be approximately broken down in to the following stages, these will vary slightly depending on strain.

**Sprout to Seedling** - Day 1 - Day 13

**Sexing** - Day 14-17

**Pre-flowering/veg/stretch** (these are combined) - Day 18 - 30

**Flowering** - Day 30 - 75

The different stages and timings are affected by the environment they are in, any problems in growth will extend these stages.

Cold can delay overall growth. This could add two weeks to the cycle time.

Stunting will inhibit general growth. Deficiencies can effect the cycle.

Growing outdoors, even in good conditions and nice healthy plants, typically add a few weeks to the overall cycle time.

Pot size and lighting are contributing factors too.

# Plant training

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At Mephisto we usually do some very simple training, but there are a variety of methods than can be employed with our autos to get the most out of them.

**Leaf Tucking** - This is the least invasive method of training and is very L.S.T (low stress straining) . When the plant is in the seedling stage and progressing to stretch, it will pay dividends to tuck the big fan leaves (where possible) underneath the emerging branches and encourage them to grow up at out.

**L.S.T** - Low stress training, plants can be tied over using a number of ties and at various stages in order to promote all lower branches to become main tops. Personally we would begin this method from week 3, but people do start it earlier with good results. There is a key stage where the plant and stem is still flexible and won't snap when manoeuvred.

**Supercropping** - Or pinch bending, as opposed to L.S.T methods this is high in stress, but can also give good results when employed correctly. We ourselves do a very 'late' supercropping. If we have one plant vastly outgrowing the rest in height, we will bend the main stem over to even the canopy. It's best when the plants are not in full flower mode.

**Topping** - Another high stress method, and somewhat of a black art of autos to get the best result. It depends both on strain and timing. A small strain with limited veg time, Wouldn't be an ideal candidate to top, and with a bigger strain for us in the past the 5th node was a good place to top, that enabled us to basically dictate how many main colas we'd end up with.

**Scrogging** - This is a nice method if you're intending to grow a few plants that are big. Place a net over, use the screen to bend the plants and encourage branching, then divert the branches through the net holes.

A net is also very useful to support these bigger strains that can get overloaded with flowers, and have floppy branches in late flower.



# Outdoor

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Outdoor is one of the best ways to utilise autos in your growers toolbox. However it is also one of the trickiest ways to grow. There are many many variables, countless in comparison to indoor, a highly changeable environment, rain, humidity, cold, pest, disease, these are all things that can easily threaten the success of your grow. But when you get it right it's glorious!

We have grown outdoors for several seasons now, each year we think we've cracked it, each year new problems can arise.

This is our method and what we've learnt.

We start indoors like usual, in our 1.5 liter square pots, under HID until sex. We've found the ideal time to start is Mid-late April, meaning plants are transplanted outdoors from early to mid May, this means plants settle in to big pots (18 liters) and are vegging in good light hours where the sun is not yet too intense. Then by June they are hardy, flowering and really taking advantage of the long light hours.

We've trialed straight outdoors in beds, under shelters, in polytunnels, and in our high humidity climate even polytunnels with extraction were really too humid. Also a 6ft ceiling height was too small for some strains when you factor in the pot too.

Some shade/shelter that allows air to pass freely through, and moisture to escape yielding better results than fully enclosed.

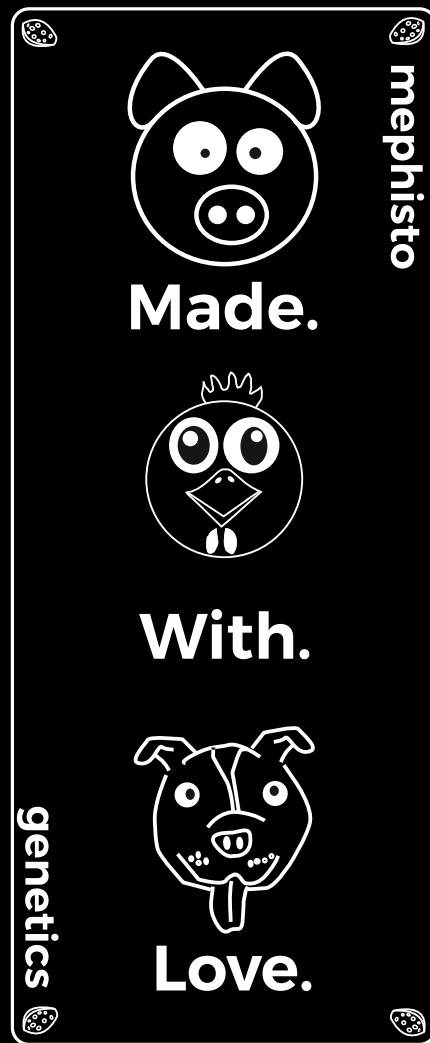
Fully outdoors, be prepared to shake plants off after rains, to treat for mould and prevent against pests. Caterpillars are our number one enemy here, but you may have to contend with rabbits, deer, people.. so know your area and prepare well in advance.

Please consult the **STRAIN GUIDE** to see what will likely work in your place for outdoor.

We're also going to start working on developing outdoor specific strains very soon.



# Thanks guys!



**You've reached the end of the 2017 Mephisto Grow Guide Version 1,**

**Over time we hope to add to this to make it much more comprehensive. V2 will include images and piggy top tips for all topics.**

**Thanks for all the support along the way, and keeping us on our toes! You make us what we are.**

**Much love, The Mephisto team.**