

BUDDING GENIUS GROW GUIDE

STEP BY STEP HOW TO USE OUR RANGE OF CANNABIS FERTILISERS.

SOUTH AFRICA'S FIRST FULL SPECTRUM CANNABIS GROWING SOLUTION. TAILORED TO SUPPORT THE PLANT AT EVERY PHASE OF ITS DEVELOPMENT. PROVIDING THE LIFE-GIVING NOURISHMENT IT NEEDS TO FLOURISH.

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Written and Compiled by Budding Genius 2020.

Change the way you think change the way you live open your heart and always be yourself.

"Time is too slow for those who wait, too swift for those who fear, too long for those who grieve, too short for those who rejoice, but for those who love time is eternity."

- Henry Van Dyke

Choosing what to grow with Budding Genius



Cannabis is an annual, diocious plant that produces a range of medically active compounds used in the treatment of a wide range of human health conditions eg.

May Help With

- Preventing/arresting seizures
- Pain relief
- Reduced anxiety
- Prevent/relive coughing
- Reduce sensitivity to painful stimuli
- Heart/blood treatment
- Treatment for nausea
- Appetite stimulation
- Cancer treatment
- Anti-inflammatory

• Protection from toxic substances in the brain

May Not

- Certain compounds like high THC has shown to exacerbate pre-existing psychiatric conditions in some users.
- Active forms Have shown to negatively influence brain development in people under the age of 18.
- Cardiovascular issues in all users due to increased blood pressure only experienced during use.

Cannabis has many compounds that have shown some medically beneficially properties.

THC and CBD are the most recognizable cannabinoids, but there are many more cannabinoids, phytocannabinoids, Flavonoid's, stilbenoids, terpenoids, alkaloids and lignin's.

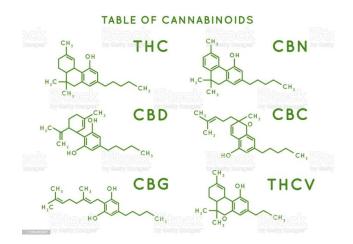
Currently there are 480 different metabolites that have been identified in cannabis.

The absolute relative amounts of these metabolites vary depending on the cultivar and production methods.

The true entourage effect is only available in fresh cannabis and not in extracts.

Find bellow some of these compounds. This is relevant on deciding which cultivar you choose to grow. Bear in mind some compounds aren't based on cultivar but time harvested or specific parts of the plants body where compounds are more concentrated at certain stages of the plants life cycle.

Cannabinoids

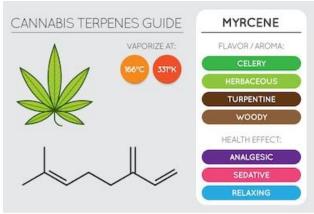


- CBG- Pain relief, anti-inflammatory, anti-nausea, may help with bowel disease, glaucoma and Crohns disease.
- CBGVA- Anti-inflammatory ,anti-oxidant, antidepressant and pain relief
- THCV- pain relief, anti-inflammatory, neuroprotective, anti-nausea, bone health and bone formation, sleep promoting, anti-anxiety, anti-epileptic and antipsychotic.
- CBDA- anti nausea, anti-anxiety, anti-inflammatory and pain relief.
- CBDVA-mood disorders, pain relief, anti-inflammatory, anti-nausea and anti-spasmodic.

- THCA-Anti-cancer, Anti-inflammatory and antispasmodic, may help with arthritis, multiple sclerosis, Alzheimer's and Parkinson's disease
- CBGA-anti bacterial, anti-inflammatory, pain relief and anti-cancer.
- THC-pain relief, anti-bacterial, anti-cancer, antiinflammatory, anti-spasmodic, appetite stimulant, bronchodilator, neuroprotective and anti-convulsive.
- CBD- analgesic, anti-anxiety, anti-bacterial, anticancer, anti-convulsive, anti-depressant, anti-emetic.

And there are many more.

Terpenes



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- Pinene- Antibiotic, anti-inflammatory, gastro protective, bronchodilator, memory boosting used to treat repertory ailments, eczema, atherits and parasitic infections.
- Myrcene- pain relief, anti-tumour, sedative, antiinflammatory, may treat muscle spasms may improve symptoms of psychosis.
- Limonene-Antimicrobial, anti-fungal, anti-tumour, antiinflammatory, dissolves cholesterol. Has been used to treat gallstones.

And many more.

Cannabis Eco Types

- Cannabis Sativa
- Cannabis Indica
- Cannabis Rudaralis

Indica



Known origins is the highlands of central Asia that can be traced back to the Kush mountain range of Afghanistan.

Generally Characterised by

- Photoperiod dependence, needs more than 12 hours of sunlight to remain in vegetative state.
- Origins latitude 30-40 degrees
- Relatively short flowering season
- Good frost resistance, low mold resistance
- Broad leaves, dark green colour
- Short stature
- Dense round flower clusters

- Abundant production of cannabinoids and terpenes
 possibly including CBD
- Earthy spicy aroma
- Large seeds light or marbled appearance, doesn't always hold true.

Can be grown in climates similar to high elevation desserts. Dry warm summers and cool wet winters. Certain Indica hybrids with a moderate mold resistance can be grown in climates with wetter summers, but unfortunately bud mold and hermaphroditism and other stresses will always be difficult to avoid. Climates like Cape Town, Eastern Cape and Northern Cape will be sufficient enough to support strains of this lineage.

Always ask your local seed dealers they should be well schooled to recommend a hybrid that will suit you're climate if indica dominant cultivars is what you're looking for.

Requirements:

Used to extreme's in day light hour changes

Generally likes to be grown at high elevation

Warm dry summers

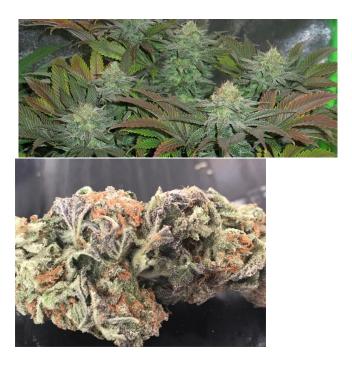
Cold winters draws its season to an end before it starts to get wet.

Vegetative light hours 16-8

Flower light hours 12-12

Temperatures range from 25*C for vegetative stage

10-15*C for Flower Generally does not like high humidity Requires less water than Sativa strains Highly sensitive to overwatering



Commented [Ma1]:



Sativa

Sativa known origins is from tropical and equatorial regions.

Can be identified by:

- Less dependent on photoperiod. Hence the stretch when daylight times turn 12-12. Bear in mind some varieties may need more hours of dark than light e.g. 10-14 to induce flowering faster.
- Latitude under 30 degrees
- Long flowering season
- Low frost tolerance, high mould resistance

Can be grown all across South Africa some sativa dominant hybrids may take extra care and need supplemental lighting in certain regions of South Africa.

- Narrow long light green leaves
- Tall stature
- Loose long flower cluster (doesn't always hold true)
- Abundant production of cannabinoids and terpenoids unlikely to produce CBD only fractional amounts.
- Fruity floral aromas
- Small seeds dark appearance (doesn't always hold true)

Requirements

Always ask your local seed dealers they should be well schooled to recommend a hybrid that will suit you're climatic region.

Vegetation- lighting anything over 12 hours of light, temperature 28-33 degrees Celsius

Flower- lighting under 12 hours of light, temperature 18-20 degrees Celsius

Can handle higher humidity levels than traditional indica based strains

Does not like cold whether below 10 degrees Celsius

Requires a lot of water to grow

Highly sensitive to underwatering



Ruderalis

Known Origin cold northern parts of Asia and Europe

Generally Characterized By:

- Dependance of age of plant and not photoperiod to trigger flowering.
- Origins in latitude above 40 degress
- Very short flowering season
- Frost resistant, mold resistant
- Medium wide leaves
- Very short stature
- Small thin flowers
- Low production of cannabinoids and terpenoids
- High volume of CBD with low levels of THC
- Overall poor aroma
- Medium sized seed, marbled appearance(doesn't always hold true)

Can Be Cultivated in South Africa but with poor results due to the sensitivity to CBD production in intense light.(UV) netting is recommended.

Ruderalis is generally used in Hybrids to give them an Auto flower trait.

Requirements

Lighting- its not light dependant rather relies on maturity to initiate flowering

Veg and flower- 5-20 degrees Celsius

Can withstand high humidity

Soil must stay moist

The easiest strains to grow with the least demand regarding environmental stresses are Landraces.

They have adapted to our climate, pests and diseases.

Enquire at your local seed dealer in South Africa for strains like:

- Durban Poison (Sativa)
- Swazi Gold (Sativa)
- Malawi Gold (Sativa)
- Kwazulu (Sativa
- RooiBaard

As you can see our environment in South Africa is mainly equipped to grow strains and hybrids of Sativa lineage outdoors. We have a diverse climate sub-tropical Johannesburg, Tropical Durban and Mediterranean Cape Town ext...So enquire by your local seed dealer for what strain would suit your specific environment they should be well schooled and experienced with this.

Most common problem with early propagation is planting to soon when the environment is still too cold and light hours aren't efficient enough. All strains have hermaphroditism in their gene code which is triggered by numerous stresses. So don't think if you buy a feminised seed/clone this can't occur.

Basic Soil Mixes with Budding Genius

Germination and rooted clones mix



- 1 x 30dm bag germination mix or/ 10 DM Peat Moss +
- 1/2 bag 5dm perlite
- ½ bag 5dm vermiculite bag
- Sprinkle 1/4 teaspoon mycorrhizae fungi at transplant in hole where seed or rooted clone will be placed.



Soil Mix

- Pro Mix/Geranium mix 90DM +-R150
- Acid mix 40DM +-R50
- Coco Peat/Germination mix 30DM +-R150

- Perlite 30DM +-R140
- Worm castings 30DM or 40/60 mix with bat guano
- Vermiculite 15DM +-R80
- You may add a sprinkle of dalmatic lime, just a little bit. A sprinkle as demonstrated above.



8x 30dm cannabis soil bag for +- R900 At Retail price

Basic Instructions

Mix all in ingredients thoroughly in.

Once mixed place medium mix in pots or beds or ground hole.

Water medium in, fully saturating it.

Allow to sit for 1 hour

Place finger in soil mix if it tingles wait till mix stabilizes. Before planting into it.

Mix should be ready to plant in right from the go this method is just precautionary to insure no plant fatalities occur due to a Miss Mix.

Before you start your grow its advised to have a chart similar to this one on hand



Germinating with Budding Genius



 Add 100ml of lukewarm water to jar. City Municipal water is fine. As it is generally soft enough.(Round about 200ppm)

To water add using a syringe: Generally used for older seeds

Mix

- 0.2ml-100ml CannaMag (Max 0.5 percent 5ml-11)
- 0.25ml-100ml Phytogrow
- 0.1ml-100ml Genesis (Max 0.5 percent 5ml-11)
- 0.2ml-100ml Take Up



Place 10 seeds into solution for soak.

Store jar out of direct sunlight.

Soaking can take between 6-14 hours depending on the size of the seed.

This process is done to soften the seed shell. To allow seed to reach maximum water capacity.

Seeds are ready to put into fresh germination mix once they have sank in the jar. Or paper towels zippy bag whatever you choose.

If seeds don't sink with-in 24 hours they are not viable.

Use a 500ml pot

Saturate medium with water. Allow medium to rest for 10 minutes.

Once medium has rested. Make a whole approximately 1cm deep.

Place seed gently in whole covering it in the medium lightly patting soil down with two fingers.

Requirements

Temperature needed 15-26 degrees Celsius anything higher or lower may slow down germination.

This includes water and substrate temperature. Use Heat pad

Plant should be showing after 3-5 days.

Don't allow medium to dry out completely.

Cloning with Budding Genius

Some essentials needed for cloning can be sourced from a local pet store.

Light set up heat pads vermiculite peat moss and no need for a propagator a plastic Tupperware with a good depth can be used.



To take clones you will need

- Healthy Mother stock(any health special stock, free from pest disease and any stresses you can even clone from plants in flower)NB make sure stock plant has only received water with-in the last 4 days (depending on strain).
- Sharp scissors/razor blade

- Container with lukewarm water
- A clean cutting board if using a razor
- A work table
- Alcohol to sterilize
- Grow medium for clones Rockwool jiffy cubes oasis cubes extra
- Plastic tub and lid/plant propagator dome
- Jar with luke warm water
- Water soluble and powder hormone number 1 or 2 depending on mother stock or just natural methods plain Ph water will work too.

Mix water soluble rooting hormone in jar at recommended dose rate

Take cuts off mother plant that has at least 2 nodes. Middle upper and middle branches.

Take cuttings off main branches at the point just above fan leaf.

As you cut place fresh cutting directly into jar.

Once done with cutting place jar on work bench give them a light sprits with water.

Prepping medium

In container with water

Mix (Optional) clean water will get the job done

- 2ml-11 Cannamag (Max 0.5 percent 5ml-11)
- 2.5ml-11 Phytogrow
- 1ml-11 Genesis (Max 0.4 percent 4ml-11)
- 2ml-11 Take Up

This is just a basic guideline for new growers dose for certain genetics may vary and may be adjusted according to grow requirements.

If using Rockwool bring solution Ph down to 5.5



Place medium in solution until it is fully saturated.(If using Rockwool allow medium to rest in solution for a minimum of 30 minutes).



Give medium a light squeeze or preferably let it drain off excess water for 5-10 minutes

Sanitize tray or base of container.

Lay perlite/peat moss in tray just about covering the base of it.



Place medium on top of the tray

Take powdered rooting hormone and place it in a small tot glass or lid that has been sanitized.

Sterilize scissors or razor blade

Take a cutting out of the jar and one by one proceed by making a clean 45 degree angle cut. (you can also split the stem at the bottom in half the larger the opening the more chance of infection) There is no need to perform any extra cuts this method is used for certain plant species that will not root if you don't do so.





Place fresh cut immediately into powdered rooting hormone, apply thoroughly.



Place cutting into medium, half way down into the medium (that is generally where porosity is at a maximum) +-1.5 - 2cm down. Press down lightly around stem to make sure cutting is firmly in place in the medium.

Repeat until done

Add 2ml of water/ solution to bass of stem to make sure powdered rooting hormone is activated.

Spray lid of container and place container under light not intense light. Can be put in the corner of your grow ten, or under an aquarium grow light T5 T8 with heat pad for first few days. Use a Heat pad, it is just to ensure medium temperature as at 21-26 degrees which is optimal for the establishment of roots and root growth (Water evaporation).

Leave lid on first 3 days only opening to wipe down lid in the morning and in the evening.



We gradually open lid to allow medium to dry out

Once we begin to open up wipe and spray lid morning and evening

Once medium at the Bottom dries out a bit we water.

Never water directly by clone stem rather wet base just to moisten up the perlite/peat moss thoroughly. Shut lid completely after we water for one day then allow medium to dry out using same method as previously. Once we begin to open up wipe and spray lid morning and evening you could do this more frequently if you have the time.

Once rooting we begin to gradually harden them off. (by exposing them gradually to their vegetation environment).

Once they hardened off we will transplant them into our medium. We don't want to transplant before this because it will be 2 shocks at once for our little babies. Which increases the rate of fatalities.

"See Rooted Starts with Budding Genius"

Requirements

Temperature 21-29 degrees Celsius Humidity 80-100 percent

Rooted Starts with Budding Genius





Once your clones have established roots/your seeds have formed there first set of leaves with ridges its starting to provide food for itself (starting photosynthesis). This is when we initiate the first true feed.

First Feed aids in root development stem strength, vegetative growth (greening up dull leaves) and stress resistance.

Hardening off your clones and prepping plants for transplant into 11 pots. Soil Mix for the plant at this stage is the germination mix with 2.5 percent worm castings/or 1-1.5 percent 3-2-1 granular slow release amendment's. Remember Mycrohizzael fungi.

To lukewarm water add

Mix

- 2.5-11 Set The Stage
- 1.5ml-11 Cannamag (Max 0.5 percent 5ml-11)
- 2.5ml-11 Phytogrow

- 1ml-11 Genesis (Max 0.4 percent 4ml-11)
- 1ml-11 Gold Brix
- 2ml-11 Take Up

This is just a basic guideline for new growers dose for certain genetics may vary and may be adjusted according to grow requirements. Less is more always use the lower dose as maintenance.

Clones

We will spray medium base with solution saturating the perlite as now roots should be extending out in towards the perlite/peat moss. Roughly 400-500 ml per tray.



In 3-5 Days they should be perfectly rooted and hardened off for transplanting into a 1L pot in germination mix. This is done on day 9-12 depending on strain/conditions.



Top Plant as they are transplanted (Depending on genetics) Also cleaning up frail lower foliage to ensure plant uses energy to quickly establish itself in new pot. Seed is generally only the embryotic leaves that need to be removed.



Once Transplanted into 1 l pots do not apply fertilizer for 2-4 days just till plant catches in new pot. (Starts to stand up to attention meaning it's going to start to show new growth).

You may give plants a spray of Set the stage at a 0.5 percent solution (5ml-11) to help ensure no transplant shock occurs/or

to help plants that are stressed or yellowing. If they have caught perfectly and don't show signs of this. You can just feed them as usual with a soil drench.

Monitor the PPM of your runoff to see what range you at and to understand when to feed. You cannot feed babies if you've put them into a mature soil mixture, which isn't recommended until they are well established in the 1 I for the next transplant.

For germinated seeds we simply apply solution to root zone. Water feed Water feed (Only in optimal conditions does this apply) Always monitor your PPM of the runoff from your pots. Until her root zone fills the pot (shouldn't take longer than 7-10 days, if it does your overwatering and not allowing medium to dry out sufficiently or soil has insufficient aeration. We transplant seed stock from the 500ml pot into 2L pot. Giving her a Top. If growing outdoors in holes topping is not necessary especially from seed stock. (Generally pure Sativa strains don't respond well to training methods) and are best left to grow outdoors in large pots or in the ground. (Streamlining them).



Image illustrates a plant in pot before becoming too root bound and stressed. Roots colouration is starting to yellow. It's Important to have well established roots before planting into bigger pots, but not leaving your plant to long in a small pot. Pot size is determined by the length of your season smaller pots or beds are used for short season methods where we can manipulate the light (Flower small to average sized plants). Full season is outdoor which require much larger pots (where we grow large plants). The bigger the pot and time of vegetation and genes determines the size of plant you'll grow.

Early Vegetation with Budding Genius

Watering/feeding schedule as follows

Water-feed-water-feed-transplant-water-water-feed-water-feed-defoliation-water-water-feed-water-feed.



Plants have been transplanted and caught in seed 2l pot and clones in the 1l pot.

This is when we initiate early veg feed we will keep this feed after next transplant into your final pot size ground whole or beds.

Again before transplanting top plant and clean up bottoms where necessary. Only transplant when plant has filled out her pot size.

When transplanting this is when we will use our mature soil mix. For teenage plants and flowering plants.

Mix

- 3.5ml-11 set the stage (max 0.5 percent 5ml-11)
- 1.5ml-11 CannaMag (Max 0.5 percent 5ml-11)
- 4ml-11 Phytogrow
- 2ml-11 Gold Brix
- 2.5ml-11 Take Up

This is just a basic guideline for new growers dose for certain genetics may vary and may be adjusted according to grow requirements. . Less is more always use the lower dose as maintenance.

Once plants have established 4 co dominant main branches we again clean up Bottoms giving them a top again, once this is done we initiate late vegetative mix (unless you mass cropping then proceed to next phase of growth).

Teen Mix

- 5ml-11 Set The Stage (Max dosage 1 percent 10ml-11)
- 2ml-11 CannaMag (Max dosage 0.5 percent 5ml-11)
- 4ml-11 Phytogrow (Max dosage 0.5 percent 5ml-11)
- 2ml-11 Gold Brix (Max dosage 0.5 percent 5ml-11)
- 2.5ml-11 Take Up (Max dosage 0.5 percent 5ml-11)

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Transition With Budding Genius

Watering/feeding schedule as follows Water-feed-water-feed-transplant-water-water-feedwater-feed-defoliation-water-water-feed-water-feed.

We are now satisfied with the height and growth of our plants. For Indoors and Greenhouse light depravation we change light to 12-12 dark-light. Some strains need a little more dark period to initiate flower faster some growers use a 10-14 for certain Sativa dominant strains(usually in greenhouses).



Preparation for flower should start now if it has already been initiated tying up and supporting plants branches continuing to practice stress training and topping to even out canopy especially important for indoors and for greenhouses for space, air circulation and light penetration. If you experienced enough you could also start getting rid of sucker branches, if not wait till full bloom when they can be identified more easily.

Transition is the last growth of the plant as it firms up to support and produce flower. (2-3 weeks)

Certain short flowering strains of purple lineage like an extra week of this feed , just cutting out CannaMag replacing it with Mag Up and upping the dose of fairy dust to bloom dose.

Good time to perform last IPM sprays. (Pest Management) we don't want to be spraying anything while she is in flower.

Mix

- 2.5ml-11 Set The Stage
- 1.5ml-11 CannaMag (Max dosage 0.5 percent 5ml-11)
- 4ml-11 Phytogrow
- 2ml-11 Genesis
- 2ml-11 Gold Brix
- 3.5ml-11 Trance (Max dosage 0.5 percent 5ml-11)
- 1ml-11 Fairy Dust (Max dosage 0.5 percent 5ml-11)
- 2.5ml-11 Take Up (Max dosage 0.5 percent 5ml-11)

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Flower with Budding Genius

Watering/feeding schedule as follows Water-feed-water-feed-transplant-water-water-feedwater-feed-defoliation-water-water-feed-water-feed.

Growth Has Slowed down or come to a complete halt. At locations where stigmas formed out of the bracts you'll see the formation of first flowers. Good time to initiate final defoliation each plant prefers a different haircut at different times Eg full crown or pinched crown also used to allow for better light penetration NB never strip your plants bare!! (she's a lady so take your time as you get to know her).



Mix

• 2ml-11 Genesis

- 3ml-11 Gold brix (Max dosage 0,5 percent 5ml-11)
- 3,5ml-11 Trance
- 3ml-11 Fairy Dust (Max dosage 1 percent 10ml-11)won't burn plants
- 2.5ml-11 Take Up (Max dosage 0.5 percent 5ml-11)
- 1.5ml-11 Mag Up (Max dosage 0.5 percent 5ml-11)

This is just a basic guideline for new growers dose for certain genetics may vary and may be adjusted according to grow requirements. . Less is more always use the lower dose as maintenance.

Late Flower with Budding Genius 1 week

There are no new bud sites forming or very little.

Earliest flower stigmas are dying off.

Some trichrome are becoming milky rather than being translucent.

This is an indication to initiate late bloom feed some strains have regrowth at this stage and some don't require late bloom rather go straight into flush like 8 weeks strains.

So keep a keen eye out.

Plant is now in decline and is reaching the end of its life span so demand for nutrients and water is decreasing. You can start to smell her full bouquets of aromas which will draw you in but don't touch her be patient.

Mix

- 3ml-11 Gold Brix
- 1,5ml-1 Fairy dust (Max dosage 1 percent 10ml-11) won't burn plants
- 3ml-11 Genesis
- 2,5ml-11 Take Up
- 1.5ml-11 Mag Up (Max dosage 0.5 percent 5ml-11)

This is just a basic guideline for new growers dose for certain genetics may vary and may be adjusted according to grow requirements. . Less is more always use the lower dose as maintenance.



Flush with Budding Genius (1 weeks)

New flower development has virtually stopped. New flowers are formed at the top of the buds. We choose to use nutrients in flush, Products from our range that are specifically formulated to boost secondary metabolite production in cannabis. The inners of the bud are still producing crucial volatile oils. The real reason to flush is to flush soil of excess salts. Taste of final product comes down to the drying, curing and storage of the bud. This all has to do with the slow degradation of Chlorophyll and carbohydrates. Over/under fertilizing, spray residue, sap from cutting fresh leaves and nutrient lockout can have a negative effect on taste and smoke.

Mix

3ml-11 Genesis 3ml-11 Gold Brix 2.5ml-11 Take Up (Max dosage 0.5 percent 5ml-11) (Max dosage 0.5 percent 5ml-11) (Max dosage 0.5 percent 5ml-11)

This is just a basic guideline for new growers dose for certain genetics may vary and may be adjusted according to grow requirements. . Less is more always use the lower dose as maintenance.



Harvest is when the growth of flowers have stopped clompletly.

Harvest time can be determined by the colouration of the trichromes /and the amount of stigmas that have died off and curled.

It is better to harvest a week later rather than a week too soon. (Also depends on what compound you looking for, for medicinal value).

THC cannot change to CBD .

And will hardly effect CBN, CBN is the by-product of the extremely slow degradation of THC. Cannabis that has not been stored correctly will speed up this degradation.



Most people will choose to harvest at this stage which is perfectly fine. We choose to keep her going for another 5-6 days only giving her water/compost tea to get rid of excess salt in the soil that may have occurred throughout this is early prep for replant. Compost teas are crucial before and after grow to maintain/increase

the microbial life in our soil. We use a hybrid methodology as timing is everything.Beware certain strains are more prone to create bananas than others (The last mechanism to self-produce).

For the brewers an easy way to get rid of chlorine is by using humic acid or just go to the local pet store and look for a product similar to the image bellow.



Now you've nurtured and taken pride and joy in your beautiful ladies.

It is now time for the most crucial topics in the whole process that has ruined many crops.

- Drying
- trimming
- Curing
- Storing



Watering Basics with Budding Genius



Cannabis requires regular access to water, but not too much or too little.

How much, and when should you water? It's important to learn the water requirements of you're plant.

Exact amount vary according to strain, size of container (unless newly transplanted plants) then root ball size is what matters, choice of substrate, stage of growth, overall health and various other factors.

Rule of thumb water when top surface 2cm down is dry (indica) or slightly moist (sativa) to the touch.

Allow for 5/10 percent run off of liquid out of pot. Water first plant water slowly to monitor this amount. We are growing high grade medicine The plants needs are always changing throw-out the growth cycle, for a full proof solutions to knowing when to feed and how much you need to measure the

runoff from your soil with an Ec meter, not all of us are connected to our plants and completely dialled into what they tell us. Eg in full flower if your Ec reading is going down to say 1200ppm we will mix a soloution with a reading of 900ppm giving total Ec in soil a reading of 2100ppm.

If your reading is going up after watering that means you need to flush medium with water until reading goes down to indicate when to initiate next feed. Ec for young plants 500-800ppm

Young 500-800PPM Veg 800ppm-1100ppm Late veg 900ppm-1500ppm Flower 1500ppm-2500ppm Ripen 900ppm-1500ppm Flush 500ppm-800ppm

For new growers we suggest you never exceed 2100ppm in full bloom.

Pests and Disease with Budding Genius

The true mark of a master grower is early detection of any pest and disease. Most of all knowing the season and conditions that cause certain pests and setting up a schedule to manage it by preventing it from occurring in the first place. This is called IPM, integrated pest management.

Unfortunately we don't all have state of the art grow facilities that can keep the temperature and pressure deficit at certain ranges to minimize the risk.

Rule of thumb good circulation throughout your grow canopy, and good hygiene is a start.

Let's take a look of two of the most common of these:

Spider Mite





Family to other pests like broad and russet mites, which are slowly becoming a major problem in the cannabis industry due to mismanaged distrubutors of clones. Its best to quarintine plants that have been outsourced.

Identification

- Easily seen with the naked eye or with a 10x lens.
- Adults have 8 legs, an oval body with two red eyespots near the head end.
- Eggs are spherical and translucent like droplets, becoming creamy just before hatching.

Life Cycle

- 12-15 days from eggs to fully mature.
- Numerous generations can be produced in 3 months.
- Female mites spin webs as foliage quality declines to catch wind to travel to nearby plants.

Monitoring

- Mite accumulate on the underside of leaves.
- Produce webbing on infested leaves.
- Damage starts as tiny flecks on the top side of the leaves.
- In extreme cases leaves take on a bronze colour.

Practices

- Water stressed plants are most likely to be attacked.
- Mitigate dusty conditions near any plant.
- Sprays of mixes of insecticidal soaps, oils like neem, canola and cottonseed, garlic, clove and rosemary oils can be used, sulphur sprays with potassium can also be used.

Powdery Mildew



Incelet Internetions

Identification

• Powdery coating appears on leaf surface.

Life Cycle

- Infestation starts when spore lands on leaf and germinates.
- Germination is best at a relative humidity of 100 percent. Occurs first as we change to 12-12 due to condensation.
- Feeds on nutrients stored in plants leaf (sugars).
- Optimum temperature for growth is 15-18 degrees Celsius.
- Spore reproduction occurs rapidly.

Monitoring

- Occurs in middle and lower parts of the plant first.
- High humidity, low light, cool temperature's and stagnant air are favourable for germination.

Practices

- Warm temperature's and moderate to low humidity.
- Good air circulation.
- You can use Potassium bicarbonate and sodium bicarbonate. Application 2-4 Tbs per 4 litre. Both draw moisture from fungal stages and change the Ph of the leaf.
- Bacillus subtillis can also be used.

We Recommend to keep an IPM for these two throughout your grow up until first signs of flower.

Rose care number 3 can be used 2 weeks before flower spraying early mornings or late afternoons or just before the lights are going to switch off for indoor growers once every 2-3 days for the 2 weeks of transition spraying on top and underneath leaves until buds start to form. This ensures smooth cruising for the remainder of the flowering cycle if the air flow especially intake fans is sufficient enough for your grow space.

Contact us at <u>info@buddinggenius.co.za</u> if you have any questions or queries.

Or follow our Blog to learn more about growing great cannabis: <u>www.buddinggenuis.co.za/blog</u>

Or visit our website to learn more about our story and our products: <u>www.buddinggenius.co.za</u> and sign up to our newsletter.