



HOME GROWERS STARTER KIT

Everything You Need to Grow Like a Pro From Your First Seed to Your First Harvest

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About Your Guide — Jeff Bugay, Master Cultivator

Since 2018, Jeff Bugay — known throughout Vermont as "**Dr. Green**" — has been the state's go-to cannabis cultivation expert. With 175+ indoor grow cycles, 30+ outdoor runs, and a personal healing journey that took him from 84 prescription pills per week to **zero since 2018** using cannabis he grows himself, Jeff brings master-level knowledge and genuine passion to every grower he works with. Featured in The New Yorker. Trusted by Vermont growers since 2018.

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GUIDE 1 — pH & DEFICIENCY

QUICK-REFERENCE CHEAT SHEET

RULE #1: Check pH Before Diagnosing ANYTHING

Incorrect pH is the #1 cause of nutrient deficiencies in cannabis. Nutrients may be physically present in your soil or water, but if pH is off, the plant literally cannot absorb them — this is called **nutrient lockout**. Fix pH first, always.

■ *Jeff's Rule: If plants are showing symptoms and you're giving good nutrients — it's the pH. 9 times out of 10. Fix pH before you do anything else.*

Optimal pH by Growing Medium

Growing Medium	pH Range	Notes
Soil	6.0 – 7.0	Sweet spot: 6.3 – 6.8
Coco Coir	5.5 – 6.5	Sweet spot: 5.8 – 6.3
Hydroponics (DWC, NFT)	5.5 – 6.5	Sweet spot: 5.8 – 6.2

Quick Deficiency Diagnosis Table

KEY: **Mobile** = starts on OLD/lower leaves. **Immobile** = starts on NEW/upper growth.

Nutrient	Appears On	Key Symptoms	First Fix
Nitrogen (N)	Old/lower leaves	Yellowing starts bottom, climbs up; pale plant	Raise N feed; pH 6.0-7.0
Phosphorus (P)	Old/lower leaves	Dark purple/red leaves & stems; bronze patches	Raise P; pH soil 6.0-7.0
Potassium (K)	Leaf tips & edges	Brown burnt edges + yellow margins; leaf curl	Flush + feed K; pH 6.0-7.0
Calcium (Ca)	New/upper leaves	Brown spots near light; NOT uniform yellowing	Cal-Mag; pH 6.2-7.0 soil
Magnesium (Mg)	Old/mid leaves	Yellow between veins; green veins stay — classic!	Epsom salt 1 tsp/gal; pH 6.0-7.0
Iron (Fe)	New leaves (top)	Bright yellow new growth; green veins visible	Lower pH to 6.0-6.5

■ **Overwatering mimics almost every deficiency. If plants droop with firm leaves — it's overwatering, not a deficiency. Let the medium dry before watering again.**

The 5-Step Problem-Solving Protocol

Step 1: Check and correct pH at the root zone

Step 2: Check watering habits — overwatering mimics almost every deficiency

Step 3: Verify nutrients at correct strength (check PPM/EC)

Step 4: Check environment — temperature extremes mimic deficiencies

Step 5: Identify deficiency by symptoms and location on plant

GUIDE 2 — VERMONT OUTDOOR GROW CALENDAR

■ Vermont's outdoor season is short — roughly late May through early October. Every week counts. This calendar is your roadmap from seed to harvest in the Green Mountain State.

■ MARCH – APRIL INDOOR START	Start seeds indoors. Germinate in Rapid Rooters at 78°F. Seedling stage under CFL/T5. 18/6 light schedule. Harden off clones before going outside.
■ MAY 1–15 HARDENING OFF	Begin acclimating plants to outdoor conditions. Start with 2-3 hrs shade daily. Gradually increase sun exposure over 7-14 days. Still bring inside if temps drop below 45°F overnight.
■ MAY 15–31 TRANSPLANT OUTDOORS	Transplant once overnight temps consistently stay above 50°F. Best spots: full sun all day (6+ hrs minimum). Add mycorrhizae to planting hole. Fabric pots or in-ground — bigger is better.
■ JUNE VEGETATIVE STAGE	Long days fuel explosive growth. Water when top inch of soil is dry. Feed nitrogen-heavy nutrients every 2-3 weeks. Begin LST training to create a flat, bushy canopy. Watch for and remove any male plants.
■ JULY LATE VEG / PRE-FLOWER	Continue training. Check for pre-flowers — sex will show. Transition nutrients toward P/K. Monitor for pests — aphids and spider mites love July. Apply neem oil as preventative if needed.
■ AUGUST FLOWERING BEGINS	Shorter days trigger flower. Buds begin forming rapidly. Switch to bloom nutrients. CRITICAL: Begin checking for bud rot (Botrytis) daily — VT August humidity is prime mold season. Improve airflow around plants.
■ SEPTEMBER PEAK FLOWER	Major bud development. Trichome production intensifies. Begin flushing last 2 weeks if using synthetic nutrients. Consider hoop house or tarp cover to protect from heavy rain and early frost. Check trichomes with a loupe.
➤ ■ EARLY OCTOBER HARVEST WINDOW	Aim to harvest before mid-October — hard frosts are coming. Watch trichomes daily. Harvest when 70-80% milky white with 20-30% amber. Cut at end of dark period for max terpenes. Hang dry at 60-70°F, 50-60% RH.

■ *VT Pro Tip: Vermont soils are naturally acidic (pH 5.5-6.0). Always amend outdoor beds with dolomite lime (1-2 tbsp per gallon of soil) before planting. Re-test pH every 2-4 weeks — VT rains shift pH quickly.*

GUIDE 3 — WHEN TO HARVEST: TRICHOME & PISTIL VISUAL GUIDE

Harvest timing is one of the most critical decisions in your entire grow. Harvest too early and you lose potency, yield, smell, and density. Harvest too late and THC degrades into CBN — producing heavy, sedative effects. Here's exactly how to read your plant.

Method 1: The Pistil Method (No Tools Needed)

Pistils are the hair-like structures on buds. They start white and darken/curl inward as the plant matures.

Pistil Color	Harvest Status	Effect Profile
50-70% white hairs	NOT READY — too early	Immature, low potency, harsh smoke
70-90% darkened & curled	Early harvest window	More energetic, cerebral effect
90-100% darkened & curled	■ PEAK HARVEST — most common target	Balanced, full potency, best all-around
100% + calyxes swelling fat	Late harvest	Heavier body effect, more sedative

Method 2: The Trichome Method (Most Accurate)

Use a 30-100x jeweler's loupe or digital microscope on the BUDS only (not leaves — leaf trichomes turn amber faster and give false readings).

Trichome Color	What It Means	Harvest?
Clear / Glassy	Immature — THC still developing	NOT YET — wait
Milky White / Cloudy	Peak THC — maximum potency	Harvest for cerebral, energetic effect
Mixed Milky + Amber	THC beginning degrading to CBN	■ Harvest for balanced, full-body effect
Mostly Amber	Heavy CBN — significant THC lost	Late harvest — heavy, sedative

■ *Jeff's Target: Harvest when trichomes are 70-80% milky white with 20-30% amber. This delivers peak potency with the right balance of THC and CBN for a well-rounded, medicinal-quality result.*

Quick Dry & Cure Reference

Dry & Cure Factor	Details
Drying Environment	60-70°F, 50-60% RH, dark room, gentle airflow — NOT blowing directly on buds
Drying Duration	7-14 days slow dry is gold standard. Small stems should snap cleanly when done.
Curing — Container	Wide-mouth glass mason jars filled to 75% capacity
Curing — Humidity	Target 58-62% RH inside jars — use Boveda 62 packs to maintain
Curing — Burping	Open jars 1-2x daily for first 2 weeks, then reduce to every few days
Curing Duration	Minimum 2-4 weeks. Premium cure: 4-8 weeks. Top-shelf: 2-6 months
Danger Sign	Ammonia smell when opening jar = mold. Spread out immediately to re-dry.

GUIDE 4 — TOP 5 BEGINNER MISTAKES (AND HOW TO AVOID THEM)

After 175+ indoor grow cycles and consulting with hundreds of Vermont growers, these are the 5 mistakes Jeff sees most — and the exact fixes.

MISTAKE #1: OVERWATERING

Overwatering is the #1 killer of cannabis plants for new growers. It creates perfect conditions for root rot, fungus gnats, and pythium. The irony — it often looks like the plant needs MORE water.

- SYMPTOMS: Leaves droop but feel firm, not limp. Soil stays wet more than 3-4 days.
- FIX: Water only when top inch of soil is completely dry (knuckle test).
- FIX: Lift the pot — water when it feels light. Water when it feels heavy — wait.
- FIX: Ensure proper drainage. Never let pots sit in standing water.
- FIX: Add 20-30% perlite to soil to improve aeration and drainage.

MISTAKE #2: IGNORING pH

New growers buy premium nutrients, quality soil, and proper lights — then water without checking pH. Every dollar spent on nutrients is wasted if pH is wrong. This is the single most common cause of 'mystery' deficiencies.

- SYMPTOMS: Multiple deficiency symptoms appearing despite feeding good nutrients.
- FIX: Buy a quality digital pH meter (Apera or BlueLab — don't use cheap strips).
- FIX: Check and adjust pH of your water before EVERY watering.
- FIX: Soil: target 6.3-6.8. Coco/Hydro: target 5.8-6.3.
- FIX: Calibrate your pH meter monthly with calibration solution.

MISTAKE #3: HARVESTING TOO EARLY

Impatience is expensive. Most new growers harvest 2-3 weeks early. The final weeks of flower produce 20-30% of total bud weight AND the peak of terpene and cannabinoid development. Rush it and you lose potency, yield, AND flavor.

- SYMPTOMS: Buds harvested too early are airy, lack smell, and produce weak effects.
- FIX: Get a jeweler's loupe (30-100x) or digital microscope — they cost \$15-30.
- FIX: Wait until trichomes are 70-80% milky white before harvesting.
- FIX: Track flowering time by strain — most take 8-11 weeks from flip to harvest.
- FIX: When you think it's ready — wait one more week. You'll be glad you did.

MISTAKE #4: SKIPPING THE CURE

Most new growers dry their buds and smoke them immediately. This is like drinking wine straight from the fermentation tank. The cure is where the magic happens — it transforms good buds into great buds.

- SYMPTOMS: Harsh smoke, grassy taste, headache-inducing, poor smell.
- FIX: Always cure in airtight glass mason jars for a minimum of 2-4 weeks.
- FIX: Target 58-62% RH in jars — use Boveda packs to maintain this.
- FIX: Burp jars 1-2x daily for first 2 weeks to release moisture.
- FIX: The longer the cure (up to 6 months), the smoother and more complex the flavor.

MISTAKE #5: USING WRONG LIGHTS

Old-style blurple LEDs, incandescent bulbs, and cheap grow lights produce weak, airy buds with low potency. Light is the #1 driver of yield and bud quality. It's the most important investment in your setup.

- SYMPTOMS: Stretchy, leggy plants. Airy, loose buds. Poor yields despite healthy plants.
- FIX: Invest in a quality quantum board LED — Spider Farmer, Mars Hydro, or HLG.
- FIX: For a 4x4 tent — minimum 400-600W true draw from a quality LED.
- FIX: Keep lights at manufacturer's recommended distance to prevent light burn.
- FIX: More light (up to a point) always equals bigger yields and better quality.

GUIDE 5 — YOUR FIRST GROW: GERMINATION TO HARVEST TIMELINE

■■ Total time: Autoflowers 60-90 days seed to harvest. Photoperiod plants 90-160+ days depending on veg time and strain.

GERMINATION

Days 1-7

- Seeds need warmth (70-85°F), moisture, and darkness to sprout
- Jeff's method: Plant directly in pre-moistened medium, 1/2" deep, pointed end down
- Cover with humidity dome. Keep at 78°F — seedling heat mat is ideal
- Taproot emerges in 24-72 hours for fresh, quality seeds
- NEVER touch the taproot — handle by seed shell only

SEEDLING STAGE

Days 7-21

- First round leaves (cotyledons) emerge — your plant is alive!
- Light: CFL or T5 at 24-30" distance — low intensity, seedlings are fragile
- Temperature: 68-77°F. Humidity: 60-70% RH
- Water in a small circle around the base — don't flood the pot
- NO nutrients for first 2 weeks — cotyledons contain all nutrition needed
- First true serrated leaves signal seedling stage is ending

VEGETATIVE STAGE

Weeks 3-8+

- Switch to full-power LED/HPS at 18/6 light schedule
- Temperature: 70-85°F lights on. Humidity: 50-70% RH
- Begin nutrients at 1/4 strength, increase gradually to full dose
- START TRAINING: LST (low stress training) begins at 4-6 nodes
- Top or FIM at 5-6 nodes for multiple colas — photoperiod only
- Flip to 12/12 when plant is HALF the desired final height
- Sex plants at pre-flower stage — remove males IMMEDIATELY

FLOWERING STAGE

Weeks 8-18+

- Week 1-2: Stretch begins. White pistils appear. Defoliate day 1.
- Week 3-4: Heavy stretch. Bud sites multiplying. Increase P/K nutrients.
- Week 5-6: Stretch ends. Buds begin to swell. Resin appears.

- Week 7-8: Major bud swelling. Terpenes intensify. Check for bud rot daily.
- Week 9-10: Final bulking. Pistils darkening. Begin flush if using synthetics.
- Week 11+: Check trichomes daily with loupe. Harvest window is open.

HARVEST, DRY & CURE

Final 3-4 Weeks

- Harvest at end of dark period — terpene content is highest
- Cut, remove large fan leaves (wet trim), hang upside down
- Dry: 60-70°F, 50-60% RH, dark room, 7-14 days minimum
- Small stems snap cleanly = ready to jar
- Cure in glass mason jars at 58-62% RH — burp daily for 2 weeks
- Minimum cure: 2-4 weeks. Premium: 4-8 weeks. Elite: 2-6 months

Ready to Take Your Grow to the Next Level?

You now have the foundation. But nothing accelerates your results faster than hands-on guidance from a master cultivator who has grown in Vermont for 13+ years. Whether you're setting up your first tent or troubleshooting a problem mid-flower — Jeff is here to help you grow it like a pro.

Service	Price	What's Included
■ Cultivation Consultation	\$150/hr — On-Site	Full grow diagnosis, training, Grow-Pac included
■ Virtual Consultation	\$60 / 30 min	Available anywhere via video call
■ Ask Dr. Green — 3 Sessions	\$149 Package	3 sessions over 90 days — full cycle support
✕ ■ Harvest Consultation	\$150/hr — On-Site	Drying boxes, trim, bud rot treatment included
■ ■ Set-Up & Grow	From \$299	Full space design and setup — tents to greenhouses

**Book directly at calendly.com/jeff-hgvtpro
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