Mushrooms & Me

My personal cultivation log of psilocybin mushrooms — from strain selection through inoculation, colonization, fruiting, harvest, drying, and storage. Written from runs I've actually done, with real data, including what went wrong and why.

This is documentation of my own grows, not instructions for anyone else. The protocols, strain data, contamination events, and lessons here are from runs I completed — not theoretical best practices. Cultivation of psilocybin mushrooms is illegal in most jurisdictions; this guide is information about my experience, not advocacy.

Tim Hughes · psychedelicsathome.com · Free harm reduction · 2025

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PART 01

Equipment

What you actually need, what helps, what I use

You don't need much to start. The list below is what I actually use — not an aspirational setup. The items where cutting corners costs tubs are the ones that matter.

AC Infinity grow tent	Fruiting environment — automated temp, humidity, and FAE via controller
Colonization tent	Separate tent, 68–74°F, dark, no air exchange needed during colonization
North Spore mono tubs	Consistent size, good depth, lid fit allows FAE without modification. The only tubs I use.
Bissell PowerSteamer	Steam pasteurization and tub kickstart before fruiting
Magic Mill dehydrator	Cracker dry without babysitting. Non-negotiable for proper storage.
Herb Guard vacuum jars	Long-term storage with desiccant packets. Vacuum seal + desiccant + dark = stable.
Taylor digital scale	Weigh everything. Wet weight before the dehydrator, dry weight after.
Capsule machine (size 0 and 00)	0.25g caps. 25g per batch = 100 doses.
Isopropyl alcohol (70%+)	Spray everything, every time. Non-negotiable.
Nitrile gloves	Change between steps. Don't reuse once you've touched something unsprayed.
North Spore spore syringes	What I use. Reliable, consistent, good strain selection.
North Spore Boomr Bag (manure substrate)	Pre-made, consistent, 3:1 ratio with grain. No substrate prep needed.
Pre-sterilized grain bags with injection ports	Removes the pressure cooker step entirely. Worth the cost for beginners.
Coco coir brick	Casing layer. Hydrate with boiling water before use.
Dot stickers (color coded)	Chain of custody from syringe to jar. Simple system, zero confusion.

PART 02

Strain Selection

B+, APE, Yeti, Tidal Wave — what I actually observed

I've run four strains. Here's what I actually observed — not catalog descriptions.

STRAIN	COLONIZATION	YIELD	POTENCY	NOTES
B+ (Golden Teacher cross)	Moderate — 28 days	High — 102.9g dry / 1,472g wet	Moderate	Reliable workhorse. Best first strain. Heavy yielder at scale.
APE (Albino Penis Envy)	Slow — 35+ days	Lower — ~76–82g dry (est.)	High	Slower and more demanding. Smaller but denser fruits. Didn't weigh wet — that data is gone.
Yeti	Not yet completed	—	High (reported)	In progress. Albino variant, PE lineage. Similar demands to APE expected.
Tidal Wave	Not yet completed	—	Very high (reported)	B+ x PE cross. In progress. Wavy caps are the ID marker.

> Start with B+. It colonizes fast, fruits reliably, yields well, and gives you clean data for your first run. Save the high-potency strains for after you've dialed in your environment and technique.

PART 03

Prep & Inoculation

Syringe prep, injection protocol, the dot color system

The dot color system is the most important process improvement I made. Every jar gets a dot matching the spore syringe lot. If contamination appears, I can trace it back to the exact syringe and quarantine the whole lot.

- ● Yellow — B+ Lot 1
- ● Blue — APE Lot 1
- ● Green — Yeti Lot 1
- ● Red — Tidal Wave Lot 1
- ● Purple — future lots

Inoculation protocol. Flame sterilize needle until glowing red. Let cool 10 seconds. Wipe injection port with IPA. 1–2cc per port, 4 ports per bag = 4–8cc total. Don't over-inject — excess moisture increases contamination risk. Seal port with micropore tape immediately.

> Pre-sterilized grain bags with injection ports removed the most contamination-prone step from my process. I stopped pressure cooking grain entirely. The cost difference is negligible compared to losing a tub.

PART 04

Colonization

Environment, timeline, what healthy looks like

Colonization happens in darkness, at stable temperature, with no air exchange. The mycelium is doing its work — your job is to not interfere.

Environment targets. 68–74°F. No light required. No FAE needed during this phase — the sealed bag maintains its own CO2 balance. Stable temperature is the only variable that matters.

Timeline. B+: full colonization in ~28 days. APE: 35+ days. Slower strains need patience — pulling early causes problems. Wait for 100% white coverage with no green or black spots.

No break and shake. I don't break and shake. Breaking the mycelium network stresses it and introduces contamination risk at the bag seal. The speed gain isn't worth it on pre-sterilized grain where colonization is already clean and reliable.

> Healthy mycelium is bright white and rope-like. Blue bruising is normal — it's an oxidation reaction, not contamination. Green, black, or pink spots mean contamination. When in doubt, isolate and monitor for 48 hours before deciding.

PART 05

Bulk Transfer & Tub Setup

Sterilization, grain/substrate ratio, casing layer

Transfer day is the highest contamination-risk moment in the process. Speed, sterility, and preparation matter more here than anywhere else.

Steam the tub first. Bissell PowerSteamer at every interior surface, 10+ seconds per spot. Let cool completely before adding substrate. This kills surface contaminants without chemicals that could harm the mycelium.

Grain to substrate ratio. I use 3:1 substrate to grain by volume. North Spore Boomr Bag (manure-based) mixed with colonized grain. Break grain into small pieces as you layer — no large clumps.

Casing layer. Coco coir hydrated with boiling water, cooled, layered 0.5–1 inch over the top. The casing retains moisture at the surface where pins form and provides a clean barrier between the grain/substrate mix and the fruiting environment.

> Do everything in one pass. Every extra minute the tub is open during transfer is contamination risk. Pre-stage everything before you open the grain bag — substrate mixed, tub steamed and cooled, casing prepared, IPA spray ready.

PART 06

Fruiting & Harvest

Environment targets, pinning to harvest, timing the veil

Environment targets. Temperature 68–78°F, humidity 85–95%, VPD 0.4–1.2 kPa. The AC Infinity controller automates most of this. Light on a sunrise/sunset cycle at mid-level intensity — mushrooms use light as a directional cue, not for photosynthesis.

What to watch. Tiny white bumps (primordia) appear first, typically within 7–14 days of transfer. From pins to harvest: 5–10 days depending on strain and conditions. Wall condensation is good. Pooling water on the substrate surface is not — increase FAE if you see it.

Harvest timing. I watch the veils — the thin membrane connecting the cap edge to the stem. When veils start to tear or break, that's harvest time. I don't wait for full cap opening. Spore drop after cap opening darkens everything and doesn't improve potency. I twist and pull gently at the base — not cutting.

Weigh fresh immediately. Before anything went on the dehydrator, I weighed it. B+-01 was two bowls — 790g + 682g = 1,472g total wet. Ended up 102.9g dry. 7.0% wet-to-dry conversion.

> Weigh wet every time. APE F1 is only estimated at 76–82g dry because I didn't weigh it wet. That data is gone. Wet weight is the data that lets you compare strains and techniques across runs.

PART 07

Drying

Three protocols tested on the Magic Mill dehydrator

The goal: cracker dry. Not leathery. Not bendy. Snap-in-half cracker dry. Any remaining moisture causes degradation and mold in storage. When in doubt, dry longer.

LOW & SLOW

110°F / 16 hrs

APE F1. Cracker dry. Gentler on active compound preservation — likely the better choice for potency, though not confirmed.

HOT & FAST

152–153°F / 6 hrs

B+ F1. Also cracker dry. Faster throughput. B+ F1 was 1,472g wet — the shorter runtime mattered at that volume.

MIDDLE GROUND

140°F / 10 hrs

Planned but not yet run. Theoretical balance between preservation and efficiency.

> Both tested protocols produced cracker dry material. The difference in potency impact between 110°F and 152°F hasn't been formally tested. Low and slow is probably safer for preserving active compounds, but the practical difference may be minimal at these temperatures.

Between Flushes & Storage

The tap water lesson, rehydration protocol, long-term storage

This is where I've lost the most tubs. Both APE-01 and B+-01 lost their second flushes to Trichoderma — blue-green mold appearing at the center of the substrate within days of rehydration. Same presentation both times.

The hypothesis: tap water. Every other moisture input in the process uses boiling water. But between flushes, I was dunking the substrate in tap water. That's the only unsterilized water source touching the substrate. Two for two on F2 contamination with that method.

New protocol. Boiled-then-cooled water only for all rehydration. Bottom-watering preferred over dunking. Clean spray bottles between flushes with IPA. No tap water touches the substrate, ever.

Long-term storage. Herb Guard vacuum jars with desiccant packets. Store at approximately 68°F in a dark storage tent. Vacuum seal + desiccant + darkness prevents moisture, oxygen, and UV degradation. Label every jar with strain, flush, weight, and date jarred.

Capsule processing. Grind to fine powder in 25g batches. 0.25g caps using the size 0 capsule machine — 100 doses per batch. At 0.25g per capsule, a single B+ flush of 102.9g dry is over 400 capsules.

> If you see blue-green mold at the center of the substrate after rehydration, that's almost certainly Trichoderma from unsterilized water. Don't try to save it. Dispose of the cake outside in a sealed bag and clean the tub with IPA and sun exposure.