

GAP Trail Foods – Phase 1 Launch Brief

Objective

Establish a fully operational, revenue-generating mushroom production facility in Frostburg by **January 2026**, using a lean Phase 1 rollout designed to minimize upfront cost, validate systems, and build market presence before scaling.

Core Phase 1 Systems (Itemized with Estimated Costs)

- Thor-style substrate mixer (DIY): \$1,250 ([DIY](#)) – \$2,600 ([mostly built](#)) (plus taxes and shipping)
- Steam sterilizer (300 gal + DIV/PID)
 - [Trough](#)
 - [300 gallon stock tank](#) (\$400)
 - [Insulation](#) (\$27)
 - [4x8' plywood](#) (\$36)
 - [Cinder blocks](#) (~4) (\$12)
 - [Steamer](#)
 - [55 gallon steel drum barrel](#) (\$160)
 - [Float valve](#) (\$20)
 - [Heating elements](#) (x2) (\$124 total)
 - [Hose barb](#) (x2) (\$20 total)
 - [Tri-clamp fittings](#) (x4) (\$76 total)
 - [Tri-clamps](#) (2 per pack, so 4 in total) (x2) (\$22 total)
 - [Hose](#) (\$44)
 - [Plugs](#) (x2) (\$38 in total)
 - [Drain](#) (\$29)
 - [K-flex](#) (\$55)
 - [Pressure reducer valve](#) (\$27)
 - [Braided hose](#) (\$9)
 - [Control panel](#) (\$600)
- [Laminar flow hood](#) (24×48): \$1,700
- Lab equipment & inoculation supplies: \$600–\$1000
 - Stainless work tables (2-3)
 - Sterile tools
 - Sterilization supplies
 - [Unicorn bags](#) (14A or 14A-OxoD) (\$417-\$461)
- Incubation shelving + environmental controls
 - Shelves for incubation and fruiting rooms (x4) (\$1,300 in total)
 - Storage racks (x4) (\$160 in total)
 - [Fogger](#) (\$300)
 - [Willhi humidity controller](#) (\$565)
 - Fogger tubing and clamps
 - [Intake fan](#) (\$150)
 - [Exhaust fan](#) (\$36)
 - [Circulation fans](#) (x4) (\$200 in total)
 - [CO2 Controller](#) (\$131)
 - [LED lights](#) (x2) (\$64 in total)
 - [Filter box](#) (\$129)
- Value-added starter equipment (grinder, dehydrator, capsule machine)

--[Freeze dryer](#) (\$2,900)

--[Dehydrator](#) (\$330)

- General tools, storage systems, sanitation equipment
 - Sanitation supplies (gloves, masks, eye guards, brooms, mops, mop buckets, cleaning supplies)
 - Totes (x6) (\$60)
 - Packaging & labeling (mylar, jars, capsules, labels)
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Expected Phase 1 Outcomes

- Reliable production workflow established
- First harvest and sales by **late January**
- Strong base for **Phase 2 expansion** (2–3 fruiting rooms)
- Market launch of the **GAP Trail Foods** brand