ARDENT SELLER

A PLAYBOOK FROM ARDENT SELLER

Small-Batch Production Planning Playbook

Plan production runs that match real demand, respect shelf life, honor the labor you actually spend, and keep finished-goods piles from eating your margin.

WHAT'S INSIDE

Page 2 — **The Framework** — Five principles of demand-driven small-batch planning.

Page 3 — **Sizing a Run** — The batch-size formula, a worked example, and a printable sizing worksheet.

Page 4 — **Production Run Log** — A run sheet for the day-of pour or bake - mise en place, ingredient draw, batch lot, yield.

Page 5 — **Weekly WIP Tracker** — Finished goods on hand by SKU, days of cover, and reorder-point flags.

Page 6 — **Post-Run Audit** — The “I made 200, sold 30” reflection sheet.

WHO IT'S FOR

Bakers, soap and candle makers, hot-sauce and condiment producers, chocolatiers, kombucha brewers, and any maker who pours, bakes, or blends in batches and decides how many to make this week.

HOW TO USE IT

Read pages 2-3 once. Then print pages 3-6 as worksheets - one Sizing Worksheet per planned run, one Run Log per pour day, one WIP Tracker per week, and one Post-Run Audit per finished batch.

The Framework

Five principles of demand-driven small-batch production planning.

WHY MOST SMALL-BATCH PLANS GO SIDEWAYS

Equipment capacity, supplier MOQs, and “while we're set up” thinking pull batch sizes upward. Demand pulls them downward. Most makers anchor on the first three; the playbook anchors on the fourth. Each principle below is one decision the demand-driven planner makes differently than the equipment-driven planner.

01 Pull, don't push

Sales velocity sets batch size, not how much wax fits in the melter. Look at the past 4-8 weeks of unit sales for the SKU, compute weekly run rate, and size the batch to cover the next production cycle plus a small safety margin. Pushing a batch because the equipment is set up is the fastest way to a freezer or shelf full of product that didn't move.

02 Respect shelf life

A batch that exceeds its saleable window is a write-off in slow motion. Cap each run at the units you can realistically sell before the earliest-expiring component fails: cottage food best-by, fragrance throw decay, finish curing, color fade. The shelf-life ceiling is non-negotiable; the demand floor moves underneath it.

03 Cost the labor honestly

Setup, mise en place, pour, cleanup, label, pack - all of it. Tracking labor as the same minute-per-unit at every batch size hides the fixed-cost lever you actually have. A bigger batch is only worth doing if the per-unit fully-loaded cost (labor + ingredients + packaging) drops by more than the carrying cost of the extra inventory.

04 Manage WIP, not just finished goods

Cured-but-unwrapped soap, cooled-but-unfrosted cakes, bottled-but-unlabeled sauce - WIP ties up cash and storage without earning anything until it crosses the finish line. Plan finishing labor for every run before the run starts, and don't pour a second batch until the first is shipped or shelved.

05 Use the smallest batch that still earns

Most makers default to "make as much as the equipment allows." The right default is "make the smallest batch where per-unit fully-loaded cost is at or near the curve's elbow" - usually well below the equipment ceiling. Smaller batches reduce shelf-life risk, free working capital, and let the recipe evolve without scrapping a 200-bar run.

THE WHOLE FRAMEWORK

Demand sets the ceiling. Shelf life sets the cap. Honest labor cost picks the smallest batch worth running. WIP discipline keeps the next batch from compounding the miss on the last one.

Sizing a Run

The formula, a worked example, and a printable batch sizing worksheet.

01 The demand-driven sizing formula

The minimum-viable batch size you should run, and the cap you should not exceed.

Target batch = (weekly unit run rate × weeks of cover) + safety stock − on-hand inventory. Cap at the smaller of: (units saleable before earliest shelf-life expiry) and (the batch size where per-unit fully-loaded cost stops dropping meaningfully — the elbow of your batch curve).

WORKED EXAMPLE - 8 OZ LAVENDER SOY CANDLE

Inputs: 12 units/week run rate (8-week trailing average), 4 weeks of cover desired, 6 units safety stock, 9 units on hand. Shelf-life cap: 90 units (fragrance throw decays after ~6 months at current sales pace). Cost-curve elbow: ~36 units (per-unit cost drops 22% from 12 to 36, then only 4% more from 36 to 72).

Target batch = (12 × 4) + 6 − 9 = 45 units. Cap = min(90, 36) = 36 units. Run 36 - the elbow caps the math, not the shelf life. The remaining 9 units of demand get covered by the next run in ~3 weeks rather than by oversizing this one.

02 Batch Sizing Worksheet

Fill in once per planned production run.

SKU / PRODUCT	PLANNED RUN DATE

A. Weekly unit run rate trailing 4-8 week average	
B. Weeks of cover desired next production cycle + buffer	
C. Safety stock absorb a sales spike or a missed run	
D. On-hand inventory finished + WIP that will be finished in time	
E. Shelf-life cap max units saleable before earliest expiry	
F. Cost-elbow cap batch size where per-unit cost stops dropping	

Target = (A × B) + C − D	
Cap = min(E, F)	
FINAL BATCH SIZE = min(Target, Cap)	

Production Run Log

A run sheet for a single batch. Print one per pour, bake, or blend day.

SKU

RUN DATE

BATCH LOT

01 Mise en place

Confirm before you start. A missed item here is a stalled batch.

ITEM	UNIT	QTY PLANNED	QTY DRAWN	LOT / BATCH ID

02 Run timing

Capture actual labor honestly. Setup and cleanup count.

SETUP START
mise en place + heat-up

ACTIVE START
the actual pour / mix / bake begins

ACTIVE END
last unit poured or shelved to cool

CLEANUP END
equipment cleaned, station reset

03 Yield

Planned vs. actual. The variance is your scaling factor for next time.

UNITS PLANNED
from the Sizing Worksheet

UNITS PRODUCED
saleable + WIP, not scrap

VARIANCE %
(produced − planned) / planned

04 Notes

Anything off-spec, any substitution, any temperature or trace surprise. Future-you will thank present-you.

Weekly WIP Tracker

WEEK OF

Finished goods on hand, days of cover, and reorder flags. One per week.

DAYS OF COVER = ON-HAND ÷ DAILY RUN RATE

Pull on-hand from the actual count, divide by the SKU's recent daily sales pace. Below 7 days = run this week. 7-21 days = run next scheduled cycle. Above 21 days = skip this cycle and reassess. WIP units count toward on-hand only if they will finish in time to sell.

01 On-hand and pipeline by SKU

Walk the studio with this sheet and a clipboard.

SKU / PRODUCT	FINISHED ON HAND	WIP (FINISHING)	DAILY RUN RATE	DAYS OF COVER	FLAG	NEXT RUN?

02 Flag legend

Use the same shorthand every week so the sheet is scannable in seconds.

RUN <7 days of cover - schedule a batch this week

HOLD 7-21 days - run on the next normal cycle

PAUSE >21 days - skip this cycle, reassess demand

STOP shelf life will expire before depletion at this rate

Post-Run Audit

SKU

BATCH LOT

The “I made 200, sold 30” reflection. Run once per finished batch.

01 Sell-through

How many of the batch sold, how fast, and how much remains.

UNITS PRODUCED	UNITS SOLD	WEEKS TO SELL	UNITS REMAINING
saleable from the Run Log	units that left the studio	from production date to today	produced − sold

02 Profit per hour worked

The honest number. Includes setup, cleanup, finishing, and packing — not just “the batch.”

Revenue from units sold to date — $
units sold × effective price after fees

− Total ingredient + packaging cost — $
the batch cost from your costing sheet

= Gross batch profit — $
what most makers stop at

÷ Total hours worked
setup + active + cleanup + finishing + packing

= Profit per hour worked — $
compare against your target hourly rate

03 Diagnose the miss

If sell-through is below target, check the box that fits and act on it.

- ☐ Demand was overestimated — recompute weekly run rate from a fresh trailing 8 weeks before the next run.
- ☐ Batch oversized vs. shelf life — the cap on page 3 was ignored. Recompute and respect it.
- ☐ Pricing crowded out demand — the price moved past what this channel will absorb. Run the pricing review.
- ☐ Channel mismatch — the SKU sold elsewhere; this channel was never going to absorb the batch.
- ☐ Seasonality miss — demand window closed mid-batch. Mark the calendar for next year.
- ☐ Quality drift — reorders softened. Reflect on the run-log notes and the batch lot.