InsightChef Pro

# The chef's connected kitchen handbook

Five illustrated guides to cost, ingredient information, pairing, scaling and menu performance.



45 GUIDE PAGES / WORKED EXAMPLES / PRACTICAL WORKSHEETS

October 2026 edition. Source-reviewed learning material; fictional worked examples.

# Your learning path

Read straight through or open the topic you need.


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Move from one measured batch to service quantities without losing unit, yield or portion discipline.

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Understand Signature, Core, Elevate and Reserve - with the exact benchmarks and a complete worked example.


## How to use this library

The guides describe the source-reviewed web application, not every historical workbook edition. All worked figures are fictional. Archived screenshots are labeled with their capture date; they are not a live account audit. Decorative food artwork is AI-generated. No customer records were changed to make this library.

Use the source notes in each guide and the app's current validation messages. Costing is not net profit; pairing references are not whole-dish ratings; allergen information is not a safety certification.

01 COST CONTROL

# When an ingredient changes cost

Trace the ripple from supplier pack to recipe, plate and menu decision.



01 Normalize purchase cost and usable yield.

02 Follow a price change through every dependent recipe.

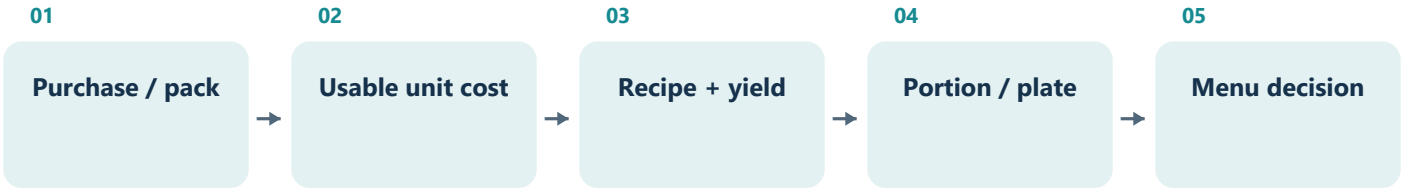
03 Separate today's cost from historical sales references.

SOURCE-REVIEWED OCTOBER 13, 2026 / ILLUSTRATIVE CULINARY ART

# One change. A connected kitchen.

Understand the chain before deciding what to change.

A supplier price is only the starting point. InsightChef Pro converts the purchased product into a usable unit cost, uses that cost in saved recipe quantities, then uses the finished recipe yield to cost the portion on a plate. A single ingredient can influence several recipes and menu items.




## Three different questions

- **What does it cost to make this today?** Use current ingredient and recipe costs.
- **What cost was saved when this plate was published?** Use the frozen publication reference.
- **What happened during a sales period?** Use the period's recorded sales and the cost references carried by those sales.

> **The important boundary**
> Theoretical plate food cost is not actual restaurant COGS, and ingredient contribution is not net profit. Labor, utilities, rent, waste and other expenses still matter.

**Before you begin:** verify the supplier, exact product, pack contents, price basis, usable yield and recipe units. An accurate formula cannot repair an incorrect pack definition.

# Normalize before you compare.

A cheaper case can still produce a more expensive usable portion.

**PURCHASED**

**50 lb**

**USABLE AT 80%**

**40 lb receives the full $30 cost**

Measured preparation loss changes usable cost.

| Measure | Calculation | Illustrative result |
|---|---|---|
| Purchased amount | 50 lb potatoes | 50 lb |
| Usable yield | 80% after measured preparation loss | 40 usable lb |
| Invoice line cost | $30.00 for the purchase | $30.00 |
| Usable unit cost | $30.00 / 40 lb | $0.75 per usable lb |
| At 70% usable yield | $30.00 / 35 lb | About $0.8571 per usable lb |

These are fictional training values, not supplier quotes. Holding purchase price constant while usable yield falls increases the cost of usable food. Measure purchased and usable quantities for your own operation.

## Check the price basis

- **Per purchase:** multiply the rate by the number of packs purchased.
- **Per content:** use the actual or approved converted weight/volume and its price unit.
- **Line total:** treat the entered rate as the entire line cost, not a per-pack rate.

> **Do not charge for the same loss twice**
>
> Preparation yield belongs in the ingredient's usable-cost basis; cooking reduction belongs in the measured finished recipe yield. Do not add the same trim or cooking loss again as an extra costing deduction.

# Follow the change through the plate.

Worked example: one cream price increase, all other inputs unchanged.

| Cost link | Before | After |
|---|---|---|
| Cream: 64 fl oz usable pack | $12.80 | $16.00 |
| Cream cost / fl oz | $0.2000 | $0.2500 |
| Cream used per sauce batch | 16 fl oz = $3.20 | 16 fl oz = $4.00 |
| Other sauce ingredients | $12.80 | $12.80 |
| Total sauce batch cost | $16.00 | $16.80 |
| Measured finished sauce yield | 64 fl oz | 64 fl oz |
| Sauce cost / finished fl oz | $0.2500 | $0.2625 |
| Sauce portion on one plate | 4 fl oz = $1.00 | 4 fl oz = $1.05 |
| Other plate components | $5.00 | $5.00 |
| Total plate cost | $6.00 | $6.05 |
| Selling price | $20.00 | $20.00 |
| Theoretical food-cost % | 30.00% | 30.25% |
| Ingredient contribution / plate | $14.00 | $13.95 |

**Read the percentages correctly**

The cream increased 25%. The complete plate increased about 0.83%. Food-cost percentage increased 0.25 percentage points, not 25 percentage points.

At an unchanged mix of 1,000 of these plates, the modeled ingredient-cost difference is $50.00. This is a sensitivity calculation, not a sales forecast or a claim of realized loss.

# Today's cost and yesterday's record.

InsightChef Pro preserves different views for different decisions.

| View | What it uses | Use it for |
|---|---|---|
| Current costs | Latest saved recipes and current posted usable costs; sourced starting references are labeled. | Today's purchasing, costing and pricing review. |
| Published plate reference | The cost snapshot saved with a particular published plate version. | Version comparison and publication history. |
| Historical sales / performance | Recorded net sales and the frozen cost reference carried by each sale. | Consistent period analysis without rewriting the past. |

The current-cost report compares the newly calculated plate cost with its saved published cost. Repricing an ingredient does not silently replace the old sale's cost reference. A new publication and its effective date are separate decisions.

**Which receipt supplies the current cost?**

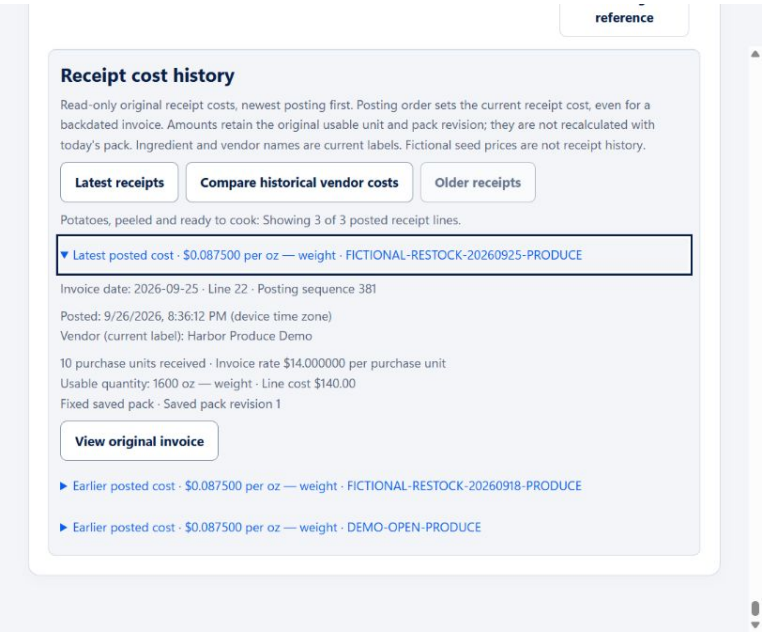
The reviewed implementation selects the latest posted sequence for the ingredient, not simply the greatest invoice date. A backdated invoice posted later can therefore become the current cost source. Review its provenance.

## What else can change the answer?

- A different pack size, supplier, measurement class or usable yield.
- A revised recipe quantity, finished yield, or plate portion.
- A new selling price or a different published version.
- A missing receipt or conversion: resolve the gap instead of treating it as zero.

# Use the app in the right order.

A repeatable workflow for the chef or manager.




Actual Harbor Table fictional-demo screen captured September 28, 2026. Historical interface illustration; displayed prices are not current supplier quotes.

- **1. Verify receiving.** Match the invoice line to the correct ingredient, supplier and saved pack; reconcile the invoice before posting.
- **2. Read the cost source.** Confirm the usable unit, posted receipt and effective date in ingredient cost history.
- **3. Review dependencies.** Open current recipe costs and current plate costs; check the measured yield and portion units.
- **4. Decide deliberately.** Review portion, supplier, recipe and price options before publishing a new plate version.
- **5. Read back.** Confirm the intended version, price and date after saving.

> **Keep the comparison consistent**
>
> Compare the same product, usable quantity, recipe yield and portion. If any of those change, identify the change explicitly rather than calling the whole difference a supplier price increase.

# Turn a cost alert into a decision.

Protect the guest experience while understanding the economics.

| Option | Question to ask | What to verify |
|---|---|---|
| Supplier / pack | Can another pack provide the same quality at lower usable cost? | Product specification, yield, minimum order and allergen changes. |
| Portion control | Is the actual served portion the intended portion? | Measured serving tools and actual plate consistency. |
| Recipe adjustment | Can the chef improve the formulation without weakening the dish? | Taste, measured yield, allergens and saved recipe version. |
| Selling price | Will a price change preserve the intended contribution or cost target? | Guest value, competition and menu positioning. |
| Menu placement | Is the dish's popularity appropriate for its contribution? | A consistent-period four-tier performance report. |

## Two different price targets

In the cream example, a **$20.05** price preserves the old $14.00 ingredient contribution: $6.05 + $14.00. A **$20.17** price approximately restores a 30% food-cost target: $6.05 / 0.30 = $20.1667, then choose practical menu pricing.

> **A target is not an instruction**
>
> Chef-set food-cost limits flag items for review. Changing or clearing a limit does not fix an expensive recipe or rewrite historical records. No universal food-cost percentage is right for every item.

# Practice, check and keep the record.

Use this worksheet with a real invoice only after checking its inputs.

| Field | Record your answer |
|---|---|
| Ingredient / supplier / exact pack | _____ |
| Old cost / new cost / usable quantity | _____ |
| Recipe / version / finished yield | _____ |
| Affected plates / portion quantities | _____ |
| Old and new plate cost / selling price | _____ |
| Decision / owner / review date | _____ |

## Five checks before you approve

- Units are compatible; oz is not fl oz.
- A changed usable yield has not been charged twice.
- All dependent recipe and plate components are included.
- Starting reference costs and missing inputs remain visible.
- The change is read back and its historical reference remains intact.

**Practice question**

A 10 lb usable ingredient pack rises from $40 to $46. A recipe uses 2 lb, yields 80 oz, and a plate uses 5 oz of that recipe. What is the plate's cost increase if all other inputs stay fixed?

**Answer:** $0.60 more per lb x 2 lb = $1.20 more per batch. $1.20 / 80 oz x 5 oz = **$0.075 more per plate**. Keep precision during calculation; round only the displayed result.

# Quick reference & source notes.

Keep the formulas close; keep assumptions visible.

| Calculation | Formula |
|---|---|
| Usable quantity | Purchased quantity x usable-yield fraction |
| Usable unit cost | Invoice line cost / usable quantity |
| Recipe batch cost | Sum of ingredient quantities x compatible usable unit costs |
| Finished recipe unit cost | Batch cost / measured finished yield |
| Plate cost | Sum of direct ingredients and prepared-recipe portions |
| Theoretical food-cost % | Plate ingredient cost / selling price x 100 |
| Ingredient contribution | Selling price - plate ingredient cost |
| Modeled cost impact | Change per plate x assumed quantity sold |

**Product evidence:** InsightChef Pro web-app source reviewed October 13, 2026: costing.mjs, usable-yield.mjs, current-cost-report.mjs, food-cost-limits.mjs and plate-performance.mjs. The archived cost-flow walkthrough supplies the labeled demo screenshot.

**Scope:** formulas and workflow education, not accounting advice or proof of restaurant results. All worked figures in this guide are fictional. The interface may evolve; use the labels and validation messages in your current version.

**Continue learning:** read Guide 04 for scaling and Guide 05 for Signature / Core / Elevate / Reserve. A higher current cost does not automatically recalculate an older period's tier.

> **The takeaway**
> One accurate ingredient record can support many better decisions. The value is the traceable chain - not a promise that a cost alert will automatically produce savings.

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02 INGREDIENT CONFIDENCE

# Allergen information with a clear source

Trace ingredient facts, separate unanswered questions, and support responsible kitchen communication.



01 Understand the US major-allergen legend.

02 Trace product and ingredient facts into recipes and plates.

03 Recognize why an app badge is not a safety certification.

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# A source-aware view of allergens.

The app organizes information; the kitchen still owns the service decision.




InsightChef Pro carries recorded ingredient information into recipes and menu items. It separates a documented product declaration from researched ingredient composition, formulation questions, and incomplete product reviews.

> **No display certifies allergen-free food**
>
> A blank badge, a completed review, or an ingredient-based gluten-free label does not prove the finished dish is safe for a particular guest. Product composition and kitchen cross-contact are separate checks.

## Read the layers separately

- **Known facts:** what a current product declaration or ingredient source establishes.
- **Questions:** formulation details that require checking; they are not confirmed presence.
- **Review status:** whether the exact purchased product and supplier information are current.
- **Kitchen controls:** how staff handle, prepare and serve the meal; not established by the ingredient database.

For US context, the FDA identifies nine major food allergens. Other foods and sensitivities still matter. Always ask the guest which ingredients must be avoided; do not limit the conversation to the nine icons. [A]

# Know the legend and its limits.

The US Big 9, plus separate ingredient-sensitivity topics.

- MILK — Milk
- EGG — Egg
- FISH — Fish
- CRUST — Crustacean shellfish
- NUT — Tree nuts
- PNUT — Peanuts
- WHEAT — Wheat
- SOY — Soybeans
- SES — Sesame

| App label / code | Meaning to preserve |
|---|---|
| MILK / EGG / FISH | Milk, egg and fish are separate categories. |
| Shellfish / CRUST | The US major-allergen category is Crustacean shellfish, such as shrimp, crab and lobster. |
| NUT / PNUT | Tree nuts and peanuts are separate categories; preserve the specific nut. |
| WHEAT / SOY / SES | Wheat, soybeans and sesame are separate categories. |

The app also tracks **gluten-containing grains, sulfites, molluscs, mustard and celery** separately. They are not additional members of the US Big 9.

> **Wheat-free does not establish gluten-free**
>
> Gluten and wheat allergy are different review topics. Barley and rye matter to gluten review. The app's ingredient-based GF display is conditional on current ingredient declarations; it does not certify preparation or the final dish. [A]

Specific product details matter more than broad category names. Read the full ingredient list and supplier declaration, including the exact fish, crustacean or tree-nut identity where relevant.

# What each status actually means.

Read the evidence instead of turning every reminder into a warning of confirmed presence.

| Displayed concept | Interpretation | Next action |
|---|---|---|
| Contains - documented product | A current saved declaration records the allergen in the exact product. | Keep the supporting product information available. |
| From base ingredients - researched composition | Ingredient-level research establishes a composition fact. | Trace the source; still complete the exact-product review. |
| Check product / formulation | Presence has not been established. | Check the actual label or manufacturer information. |
| Needs product review | The exact product review is incomplete or no longer matches. | Reopen that ingredient and review current evidence. |
| Missing / outdated research | No usable current research supports that portion of the record. | Gather or refresh the relevant evidence. |
| No US major allergens recorded | The reviewed records do not list them. | Do not turn this into an allergen-free claim. |

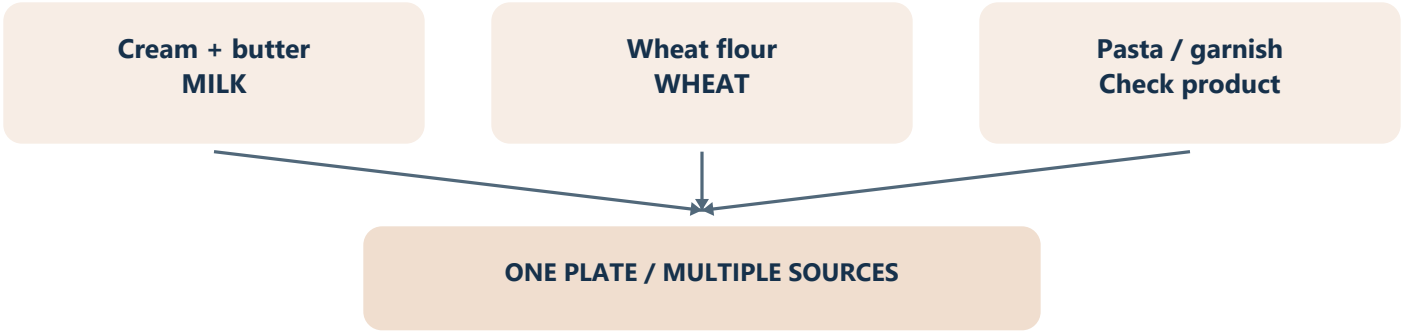
**A pending review must not erase a known fact**

For example, cream's recorded milk information can remain visible while an exact supplier declaration is still awaiting review. Evidence content and review completion are separate.

If an ingredient name, reference identity, supplier or pack revision changes, the previous declaration may no longer match. A price-only or storage-location change does not, by itself, change product composition.

# Trace one plate back to its sources.

Illustrative example: lemon chicken with a cream sauce and pasta.




| Component | What the record may establish | What still needs checking |
|---|---|---|
| Cream + butter in sauce | Milk from ingredient composition and/or product declaration. | Exact purchased formulations. |
| Wheat flour in sauce | Wheat if this is the documented flour. | Any substitution or alternative blend. |
| Pasta | Wheat when supported by the exact product. | Egg content depends on formulation; do not assume. |
| Stock / seasonings / garnish | Only the facts supported for each product. | Unreviewed ingredients and changes. |
| Wine in sauce | Additional sensitivity information where documented. | Specific product evidence; do not infer a complete beverage profile. |

Recipe and plate summaries combine the source ingredients and remove duplicate category badges. The underlying origin list still matters: a single milk badge can come from both cream and butter.

**Changing one item may not remove the allergen**

Replacing the butter does not remove milk if cream remains. Removing pasta does not remove wheat if the sauce still contains wheat flour. Recheck every source, including garnish and accompaniments.

# Review an ingredient responsibly.

A practical product-information workflow.

- **1. Identify it.** Match the saved ingredient to the actual brand, product, supplier and pack.
- **2. Gather evidence.** Review the current packaging and relevant manufacturer or supplier declaration.
- **3. Separate facts from questions.** Record supported contains information; leave uncertain formulation questions unresolved.
- **4. Save only a justified review.** Do not complete a review to remove a reminder. Preserve source notes and attached research.
- **5. Follow the origins.** Inspect the affected recipe and plate summaries after saving.
- **6. Communicate changes.** Tell the people who prepare and describe the dish when its composition changes.

## Useful information to retain

| Product identity | Review evidence |
|---|---|
| Brand / product / pack / supplier | Label or supplier-document date and relevant statement |
| Ingredient and recipe versions | Who reviewed the product and when |
| Known allergens / additional sensitivities | Open questions and the person responsible for resolving them |

> **Fictional demo versus service**
> A demo teaches the workflow. Fictional ingredients and research examples are not the product labels used in a real kitchen. Do not copy a demo's review status into a customer's operation.

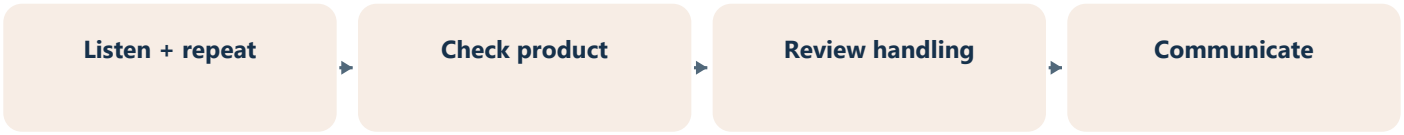
Changing suppliers or substituting an ingredient is a new evidence check, not merely a purchasing decision.

# The kitchen step software cannot certify.

Product information is necessary, but handling still matters.

## Separate composition from cross-contact

Cross-contact is unintended allergen transfer. Shared equipment, utensils, surfaces and preparation can introduce an allergen even when it is not part of the recipe. Cooking does not reliably make an allergen safe. Follow the restaurant's trained cleaning, separation and communication procedures. [B]




A recorded recipe does not establish the kitchen's preparation controls.

- Ask which ingredient or allergy the guest is concerned about; repeat the request accurately.
- Escalate to the designated manager or chef and check the actual products.
- Follow established controls for preparation, equipment, utensils and service.
- If safety cannot be established, explain the uncertainty instead of promising a safe meal.

> **Use precise service language**
>
> Say: 'The recorded recipe includes milk in the cream sauce. I will have the chef review your request and our preparation.' Do not say: 'The software says it is safe.'

This guide is product training, not medical advice, a food-safety certification, or a substitute for site-specific staff training and emergency procedures. Follow local requirements and the restaurant's approved allergy-response process.

# A review worksheet and team exercise.

Practice source tracing without inventing an allergen clearance.

| Record | Complete before closing the review |
| --- | --- |
| Ingredient / brand / supplier / pack | _____ |
| Evidence and its date | _____ |
| Documented allergens | _____ |
| Additional sensitivities / questions | _____ |
| Affected recipes and menu items | _____ |
| Reviewer / date / next action | _____ |

## Scenario: a sauce supplier changes

The new sauce has the same name and a lower price. Your old product record had a completed review. What should the team do?

- Recheck the exact product and current supplier declaration.
- Do not assume the old review covers the new formulation.
- Trace the sauce into all affected plates and garnishes.
- Keep unresolved questions visible and communicate the change.

> **Answer to the common shortcut**
> 'The dish name did not change' is not enough. A supplier or formulation change can alter allergens even when the menu wording is identical.

**Training check:** Does a formulation question mean an allergen is definitely present? **No.** Does an empty badge prove absence? **No.** Can known ingredient facts remain visible while product review is pending? **Yes.**

# Quick reference & source notes.

A small set of rules worth keeping visible.

- Start with the exact product, not the dish name.
- Read known facts, open questions and review status separately.
- Trace allergens through all recipe components.
- Treat supplier and pack changes as reasons to recheck the evidence.
- Never convert an ingredient badge into a finished-dish safety promise.
- Keep kitchen cross-contact controls separate from composition records.

## External safety references

[A] FDA, Food Allergies. US major-allergen categories, product-label context and gluten information. Accessed October 13, 2026.

[B] FARE, Avoiding Cross-Contact. Handling distinctions and communication guidance. Accessed October 13, 2026.

## Product sources

Source-reviewed October 13, 2026: public/allergen-core.mjs, public/culinary-tools.mjs and src/culinary-support.mjs in the InsightChef Pro web application. These establish the legend, roll-up behavior, source origins, review-basis checks and UI wording.

> **Keep the scope honest**
> This guide describes product-information behavior and general safety boundaries. It does not create a verified allergen record, certify a restaurant, or determine what any particular guest can safely eat.

Cover artwork is an AI-generated culinary illustration. It is not a photograph of a verified allergen-controlled meal.

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03 CULINARY INTELLIGENCE

# Pairing with purpose

Use ingredient connections, preparation context and tasting to build a better dish-and-drink conversation.



01 Understand what ingredient pairing scores do and do not mean.

02 Expand a saved dish to see its real components.

03 Turn reference suggestions into a practical tasting plan.

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# A starting point for the chef.

The pairing tool supports judgment; it does not replace tasting.

InsightChef Pro explores saved dishes and ingredients, shows flavor references, and surfaces source-backed ingredient connections and selected wine-style candidates. The purpose is to make the reasoning visible, not to declare one universally correct pairing.




## Three useful layers

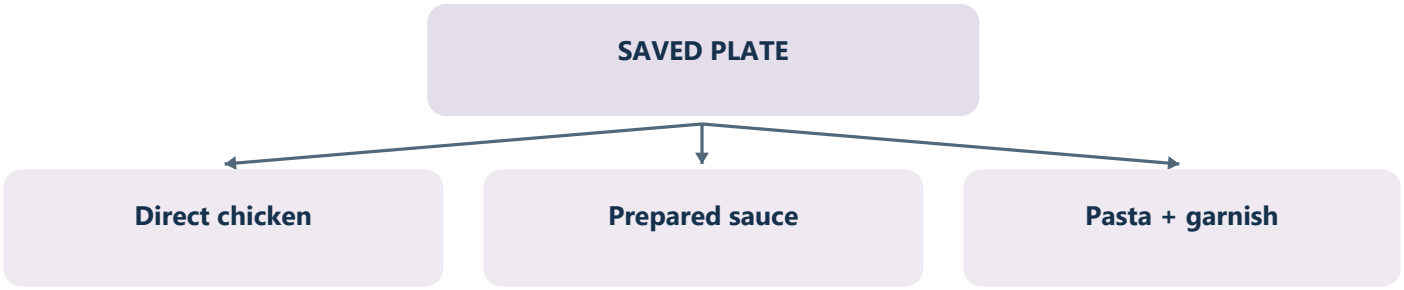
- **Composition:** the ingredients actually recorded in the dish, including prepared-recipe inputs.
- **Connections:** ingredient-to-ingredient rules, reasons and source scores.
- **Context:** cook method, sauce, garnish and beverage details that still need chef review.

> **There is no complete-dish pairing score**
> An 88/100 ingredient rule is not an 88% probability that guests will like the finished dish and drink. It is not a certified wine rating, a safety clearance or a guarantee of availability.

An absent rule is a knowledge gap, not a negative verdict. Do not substitute a similar ingredient identity simply to obtain a score.

# Know what the saved dish contains.

Prepared recipes must be expanded using their own yields.




Sauce expands to its recorded ingredients, proportions and source references.

A plate may contain direct ingredients and portions of prepared recipes. The pairing view expands the prepared recipe proportionally from its current saved definition and explicit yield. This can reveal an important flavor driver hidden behind a short label such as 'cream sauce'.

| Recorded layer | Why it matters |
|---|---|
| Main ingredient | Provides a starting flavor and texture context. |
| Sauce | Can dominate acidity, richness, sweetness or seasoning. |
| Cooking method | Changes the relevance of a preparation-specific reference. |
| Garnish and accompaniment | May strengthen, soften or conflict with a suggested connection. |
| Actual beverage | Its ingredients and style still need to be checked. |

**Input quantities are not finished weight**

Expanded recipe inputs do not necessarily add up to the finished sauce weight. Cooking and measurement classes matter. Use the recorded finished yield for scaling; do not infer it from a list of mixed oz and fl oz.

The pairing view uses the current saved recipe definitions shown. That is not automatically the historical recipe version attached to an earlier sale.

# Read a score without overclaiming.

Keep the rule, direction, reason and qualification together.

| Field | What it tells you | What it does not tell you |
|---|---|---|
| Score | Relative strength recorded for a particular source ingredient rule. | Whole-dish quality or probability of success. |
| Direction | Which ingredient points to which pairing. | That every reversed relationship has the same rule. |
| Reason | Why the reference suggests the connection. | How the exact recipe will taste after preparation. |
| Source | Where the rule or analogy came from. | Endorsement of your dish or restaurant. |
| Qualification | Conditions and limitations for using the idea. | Permission to ignore the sauce, spice or cook method. |

## Examples from the preserved chicken rules

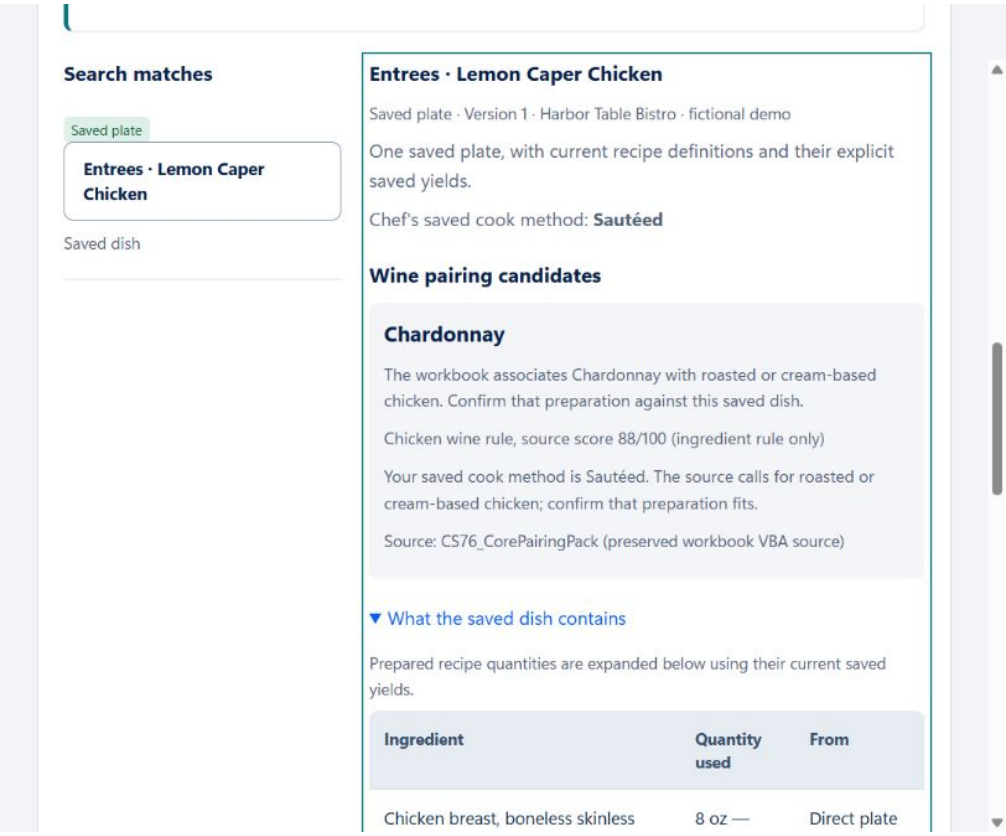
The reviewed reference lists chicken with garlic (95), lemon (92), thyme (90), butter (88), rosemary (85) and cremini mushroom (82). These are ingredient-level references, not a recipe ranking.

> **Never average rules into an invented dish score**
> Several high ingredient scores do not justify adding them or averaging them into a 'perfect match' claim. The reviewed app does not calculate a combined dish-and-drink score.

Use the highest relevance, not simply the highest number. A minor garnish should not automatically override the dish's dominant sauce and preparation.

# Worked example: lemon caper chicken.

Read the actual qualification that accompanies the suggestion.




Actual Harbor Table fictional-demo pairing screen, September 28, 2026. Preserved as a training example; not a claim of current stock or a tasted endorsement.

The saved method is **Sauteed**. The Chardonnay candidate comes from a chicken rule associated with **roasted or cream-based** preparation, with a source score of 88/100. The app asks the chef to confirm that this context fits.

> **The right conclusion**
> 'This is a candidate to taste with the sauce and preparation' is supported. 'The software scored this whole pairing 88/100' is not.

The cream-based sauce may make the reference useful, but lemon intensity, capers, seasoning, wine style and the actual finished plate still need review.

# Build a disciplined tasting comparison.

A practical method, not a new software score.

| Step | What to record |
|---|---|
| 1. Establish the dish | Use the intended recipe, portion, sauce, garnish and serving condition. |
| 2. Choose candidates | Select two plausible options plus a suitable nonalcoholic option where relevant. |
| 3. Taste separately | Record your own impressions of dish and beverage before combining them. |
| 4. Taste together | Note balance, dominant flavors, texture and whether either overwhelms the other. |
| 5. Check the operation | Review actual bottle/product, serving cost, availability and staff explanation. |
| 6. Choose and document | Record the chef's conclusion and any preparation-specific limits. |

**REFERENCE**
Why try it?

**TASTING**
What actually happens?

**OPERATION**
Can we serve it well?

Use plain language: 'The citrus feels balanced,' 'The drink overwhelms the sauce,' or 'The finish becomes harsh.' These are observations from your tasting, not claims the app has measured them.

**Keep safety and commerce separate**

A pairing suggestion does not establish allergen suitability, alcohol content, stocked inventory or a menu selling price. Review those through their own records and kitchen procedures.

For a nonalcoholic comparison, use the actual beverage formulation. Do not assume sweetness, dilution or suitability from a drink name.

# Navigate, compare and keep control.

What the current tool can help you investigate.

- **Open the saved plate.** Use Explore pairings to inspect its composition and reference context.
- **Expand the prepared recipes.** Look beyond the title to sauce, seasoning and ingredient quantities.
- **Read the reasons and sources.** Keep the score attached to its original ingredient rule.
- **Check cook-method notes.** A missing or mismatched method needs review, not an invented match.
- **For a saved food-and-beverage comparison:** explicitly choose the beverage role and inspect the ingredient connections.
- **Taste and decide.** Record the culinary decision through your normal workflow; exploration itself does not change the restaurant's records.

## What is not calculated

| Not established by this view | Why the distinction matters |
|---|---|
| Overall dish/drink score | No false precision or 'perfect pairing' promise. |
| Finished-drink sweetness, dilution or strength | The actual prepared beverage must be evaluated. |
| Allergen suitability or stock availability | Use separate evidence and operational checks. |
| Automatic sauce recommendation ranking | An existing sauce recipe is not a newly generated recommendation. |

**No rule is better than a false match**

If the exact ingredient lacks a reference, retain the gap. A nearby name or related food is not proof that the same rule applies.

# Tasting worksheet & interpretation test.

Build a record the next shift can understand.

| Field | Your tasting record |
|---|---|
| Dish / recipe version / cook method | _____ |
| Sauce / garnish / dominant flavors | _____ |
| Candidate / actual product / serving | _____ |
| Reference rule / score / qualification | _____ |
| Observed result with the finished dish | _____ |
| Chef decision / limits / date | _____ |

## Three statements to classify

- **'Chicken-Chardonnay is 88/100, so the finished menu pairing is 88/100.'** Unsupported: the score belongs to an ingredient rule.
- **'The source assumes cream-based chicken; our sauce makes it worth testing.'** Appropriate: the qualification guides a tasting.
- **'There is no rule for this ingredient, so it is a bad pairing.'** Unsupported: missing knowledge is not a negative score.

> **One useful staff description**
>
> 'We selected this option after tasting it with the finished sauce and preparation.' Use that only when the tasting actually happened. The software can explain the starting point; it cannot supply an experience you did not conduct.

# Quick reference & source notes.

Evidence-backed suggestions, with room for chef judgment.

- Start with the current saved dish and its explicit yield.
- Read through prepared recipes to the underlying ingredients.
- Keep an ingredient score attached to its rule and source.
- Review sauce, spice and cook method before using a wine-style candidate.
- Taste the actual finished dish with the actual beverage.
- Check allergens, product identity, cost and availability separately.

## Product evidence

Source-reviewed October 13, 2026: dish-intelligence.mjs, intelligence.mjs, culinary-reference.mjs and the preserved CS76_CorePairingPack references used by the web app.

The archived September 28 pairing walkthrough verified the saved Lemon Caper Chicken example, its expanded sauce, flavor guidance, source qualifiers and ingredient-level scores. Its screenshot is explicitly labeled as a historical fictional-demo capture.

## Scope and interpretation

The tasting worksheet and suggested comparison procedure are editorial training aids, not an additional automatic feature. Candidate styles and ingredient connections are prompts for investigation, not objective ratings of the finished meal.

> **Keep this sentence in mind**
> A pairing reference helps you decide what to try. A real tasting helps you decide what to serve.

Cover artwork was generated for this guide and is illustrative. It does not establish the pictured meal's composition, allergen status, beverage formulation or actual pairing result.

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04 PRODUCTION PLANNING

# Scale with confidence

Move from one measured batch to service quantities without losing unit, yield or portion discipline.



01 Calculate batch factors from finished yield.

02 Distinguish per-guest quantities from event totals.

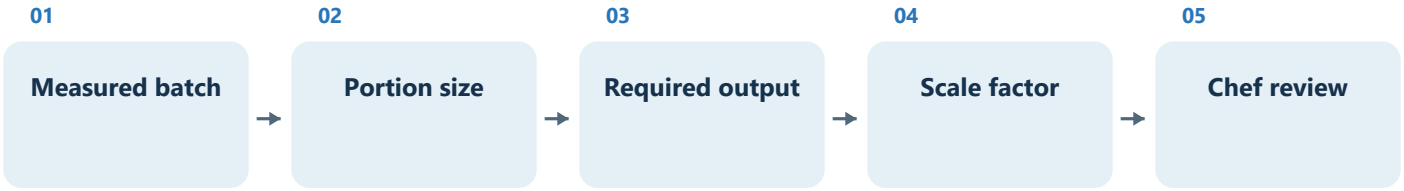
03 Separate an exact scaling estimate from real production and purchasing.

SOURCE-REVIEWED OCTOBER 13, 2026 / ILLUSTRATIVE CULINARY ART

# Start with finished yield.

A serving count is useful, but measured output is the stronger foundation.

InsightChef Pro's recipe workflow uses a finished batch weight or fluid volume. This establishes the cost and quantity of the prepared food that can actually be portioned. Approximate servings can then be derived from a compatible serving size.




**The core calculation**

Scale factor = required finished quantity / original finished yield. Multiply every recipe ingredient quantity by that same factor, keeping compatible units.

For example, an 80 oz finished batch divided into 5 oz portions gives 16 portions. If you need 40 portions, you need 200 oz finished output, or 2.5 times the original batch.

## Keep the measurement classes straight

- **Weight:** oz, lb, g and kg.
- **Fluid volume:** fl oz, cup, pint, quart, gallon, ml and l.
- **Count:** each, dozen and explicit product-specific pack definitions.

Weight and fluid volume are not interchangeable. Cross-class conversion needs the appropriate measured yield or ingredient-specific density; one generic cup-to-ounce assumption is not reliable.

# From covers to required production.

The quantity basis matters as much as the number.

| Menu entry | At 60 guests | Interpretation |
|---|---|---|
| Sauce: 3 fl oz per guest | 180 fl oz | Multiplied by covers. |
| Soup: 4 qt total event | 4 qt | Not multiplied by covers. |
| Plate: 1 each per guest | 60 plates | Plate components expand from this quantity. |
| Prepared recipe in several dishes | Combined requirement | The shared recipe need is gathered before its ingredients are costed. |

**60 guests** x **3 fl oz each** = **180 fl oz**

Per-guest example. A total-event entry is not multiplied again.

The Catering workflow distinguishes **per guest** and **total event**. Reversing those choices can create a large over- or under-estimate. Confirm the service style, included offerings, covers, minimum covers and any choice groups before generating cards.

> **Alternatives need a deliberate plan**
>
> Do not enter two alternate entrees as if every guest receives both unless that is the intended service. Confirm the meaning of selected offerings and event quantities; do not assume the app knows the guest take-rate.

A saved event is a planning record. It is not proof that ingredients were purchased, food was prepared, stock was consumed or a customer quote was accepted.

# Worked example: 2.5 batches.

Fictional cream sauce with a measured 64 fl oz finished yield.

An event needs 40 servings at 4 fl oz each: 40 x 4 = **160 fl oz**. Required factor: 160 / 64 = **2.5**. The following is an arithmetic training example, not a tested culinary formula.

| Input | One batch | x 2.5 |
|---|---|---|
| Cream | 16 fl oz | 40 fl oz |
| Stock | 32 fl oz | 80 fl oz |
| Milk | 16 fl oz | 40 fl oz |
| Butter | 4 oz by weight | 10 oz by weight |
| Flour | 3 oz by weight | 7.5 oz by weight |
| Measured finished output | 64 fl oz | 160 fl oz target |
| Illustrative batch cost | $16.00 | $40.00 |
| Portions at 4 fl oz | 16 | 40 |
| Ingredient cost / portion | $1.00 | $1.00 |

**Why unit cost stays the same in this model**

With constant usable unit prices, ingredient ratios and proportional finished yield, 2.5 times the batch costs 2.5 times as much. The theoretical cost per finished unit stays the same.

In real preparation, pan size, evaporation, equipment and technique can change output. Measure the result instead of assuming the projected yield was achieved. Input fluid volumes and weights are not a substitute for a finished-yield measurement.

# Exact math is not a production instruction.

The chef turns fractional quantities into a workable batch plan.

| Scaling issue | Review before preparation |
| --- | --- |
| Fractional batches | The app can return 2.5 batches; it does not automatically round to 3. |
| Whole or indivisible ingredients | Choose a practical method and record any intentional rounding. |
| Seasoning and leavening | Test the scaled formulation; do not blindly equate arithmetic with culinary performance. |
| Evaporation and reduction | Pan geometry and heat load can change finished yield. |
| Equipment capacity | Split the run into safe, manageable batches when necessary. |
| Time and temperature | Do not multiply cooking time by the batch factor. Follow the appropriate validated process. |
| Purchase packs | Recipe demand and whole-pack buying are different calculations. |

If you choose to make 3 batches instead of 2.5, your expected output and cost change too. In the training example that means 192 fl oz and $48.00, not 160 fl oz and $40.00. Plan the extra 32 fl oz deliberately.

**Do not hide operational decisions in the formula**

Record the practical quantity you choose, the reason for an override and any extra planned output. Scaling is a transparent estimate, not permission to invent actual production or waste.

# Generate cards, then verify them.

Use saved definitions and let unresolved inputs stay visible.

- **1. Check Recipe Builder.** Use the intended saved version, ingredient quantities and measured finished yield.
- **2. Define the event.** Set date, covers, included offerings and per-guest versus total quantities.
- **3. Generate scaled cards & price.** Read the factor, original yield, scaled yield, ingredient lines and cost basis.
- **4. Resolve warnings.** Missing costs, incompatible units, unavailable yields or inconsistent choices can prevent a complete estimate.
- **5. Review practical quantities.** Decide how to handle fractional batches, seasoning and equipment constraints.
- **6. Save and read back.** Check the event and the intended recipe-card version; changing inputs requires generating the cards again.

| Complete estimate | Incomplete estimate |
| --- | --- |
| Shows the modeled total using the required inputs. | May show known costs only; that is not the full total. |
| Still requires culinary and operational review. | Resolve missing information before treating it as ready. |
| Uses current source costs for the calculation. | Do not replace unknowns with zero. |

**Allergens scale in quantity, not in meaning**

Making less of an allergenic ingredient does not remove its presence. Review the ingredient and recipe information separately from the quantity calculation.

# Prep, purchasing and event price.

Three related calculations that should not be confused.

## Prep sheet: fill the actual gap

The prep sheet suggests **max(needed - ready-to-use on hand, 0)**. If you need 160 fl oz and have 32 fl oz genuinely ready to use, the suggested gap is 128 fl oz. A chef can explicitly override the to-prep quantity; the override is a decision to review.

## Purchasing: convert requirements to packs

Recipe quantities are usable requirements, not necessarily as-purchased quantities. Use the product's yield and pack definition, credit valid on-hand amounts, then round purchases to suitable whole packs. The scaling output itself does not automatically perform those purchase-pack choices.

## Event price: an estimate with exclusions

The catering suggestion starts with food cost per cover divided by the chosen food-cost target fraction. Entered additional event costs, any chosen markup on those costs, and upgrade surcharges are separate components. Your selected selling price remains a separate decision.

> **Contribution is not the full bottom line**
>
> A $10 food cost per cover at a 30% target gives a $33.33... food-based price before other event costs. That does not prove profitability or include unentered labor, rentals, overhead, tax, service charges or gratuities.

Keep a planning estimate distinct from an actual production record, purchase order, invoice, inventory movement or customer quote.

# Scaling worksheet & team exercise.

Check the factor before you check the shopping list.

| Planning field | Your record |
| --- | --- |
| Recipe / saved version | _____ |
| Original finished yield and unit | _____ |
| Portion size / covers / total output | _____ |
| Scale factor / practical batch choice | _____ |
| Ready-to-use on hand / to-prep gap | _____ |
| Yield, allergen and cost gaps to resolve | _____ |

## Exercise

A recipe produces 80 oz. The event needs 60 servings at 6 oz each. There are 40 oz already prepared and suitable for the planned service. Each original batch uses 4 lb of one ingredient.

- Required finished amount: 60 x 6 = **360 oz**.
- Full event factor before on-hand credit: 360 / 80 = **4.5 batches**.
- New prep gap: 360 - 40 = **320 oz**, or **4 batches**.
- That ingredient for the new prep only: 4 batches x 4 lb = **16 lb usable**.

> **The key distinction**
>
> The event requirement and the amount you still need to prepare are different. Do not deduct the same on-hand quantity twice, and do not assume catering automatically applied a separate prep-sheet balance.

# Quick reference & source notes.

A precise plan leaves a trail of units, versions and decisions.

| Calculation | Formula |
|---|---|
| Finished amount required | Portion quantity x portions required |
| Full scale factor | Required finished amount / original finished yield |
| Scaled ingredient quantity | Original ingredient quantity x scale factor |
| Suggested prep gap | Maximum of needed minus ready-to-use on hand, or zero |
| Theoretical scaled batch cost | Original batch cost x factor, with prices unchanged |
| Approximate portions | Finished yield / compatible portion size |

**Product evidence:** source-reviewed October 13, 2026: costing.mjs, catering.mjs, prep-sheet.mjs and public/culinary-tools.mjs. These establish physical finished-yield requirements, unit checks, fractional event scaling, recipe cards, cost warnings and planning-only prep behavior.

**Editorial examples:** all numbers are fictional arithmetic exercises, not tested recipes, measured production, actual invoices or food-safety instructions. Cooking methods, temperature controls and shelf life require the operation's separate approved procedures.

> **Before the batch starts**
> Check units. Confirm the saved recipe. Measure finished yield. Review practical quantities. Keep the plan separate from what actually happened.

Cover artwork is AI-generated and illustrative. Product screens and labels can change; follow the validation messages in the current app.

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05 MENU PERFORMANCE

# The four-tier menu rating system

Understand Signature, Core, Elevate and Reserve - with the exact benchmarks and a complete worked example.



01 Separate popularity from contribution per unit.

02 Calculate the exact shared benchmarks.

03 Choose an action without mistaking a tier for a quality grade.

SOURCE-REVIEWED OCTOBER 13, 2026 / ILLUSTRATIVE CULINARY ART

# Two questions. Four useful categories.

How popular is the item, and how much does each sale contribute?

Contribution per unit increases upward

**ELEVATE**

Low popularity / high contribution

**SIGNATURE**

High popularity / high contribution

**RESERVE**

Low popularity / low contribution

**CORE**

High popularity / low contribution

Popularity increases to the right

InsightChef Pro compares each selling plate with two benchmarks calculated from the displayed period. Popularity uses sales mix. Contribution uses recorded net item sales less the frozen ingredient-cost references carried by those sales.

| Tier | Relative position | Starting action |
|---|---|---|
| Signature | High popularity / high contribution | Protect quality and visibility. |
| Core | High popularity / low contribution | Review portion or price. |
| Elevate | Low popularity / high contribution | Improve placement and promotion. |
| Reserve | Low popularity / low contribution | Rework, replace or remove after review. |

**A tier is not a star rating**

Reserve does not mean bad food. Signature does not certify quality or net profit. The categories describe relative period performance and suggest where to investigate.

# First choose a fair period.

The same menu can receive different tiers in different windows.

Select dates that represent the question you are asking. A weekend special, a seasonal item and a weekday lunch dish may have very different exposure. The classification is only as meaningful as the records and period behind it.

- Use the same dates for sales mix and contribution.
- Prefer a complete, comparable service window; identify partial days.
- Review availability, stockouts, promotions and seasonality before judging low volume.
- Confirm recorded quantities, net sales and the cost reference for each sale.
- Compare categories and service contexts thoughtfully; do not assume unlike items had equal opportunity.

> **The menu population matters**
>
> The reviewed report includes published plates effective by the end date. It has no menu archive flag. A no-sales item can remain listed; that does not prove it was offered throughout the selected period.

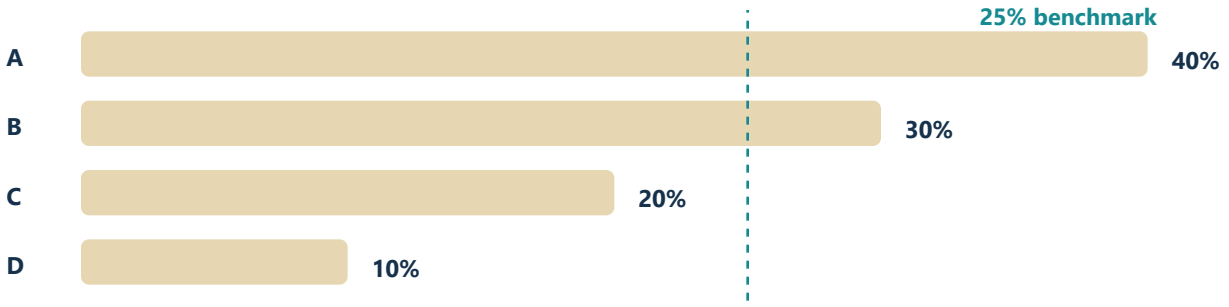
## Current price versus historical performance

The report uses recorded net item sales, not today's menu price multiplied by old quantities. It uses the frozen cost reference carried by each sale, not today's ingredient cost multiplied by old volume.

Later corrections are associated with the original business dates. After corrections, re-read the report for the same period rather than comparing mismatched windows.

# The popularity benchmark.

The mean positive sales mix, not an arbitrary percentage.




**Sales mix for an item = its recorded quantity sold / total recorded quantity sold.** Let N be the number of plates with positive recorded sales in the selected period. The popularity benchmark is **1 / N**, expressed as a percentage.

| Selling plates (N) | Popularity benchmark |
|---|---|
| 4 | 25.00% |
| 5 | 20.00% |
| 10 | 10.00% |
| 20 | 5.00% |

Why? The selling items' mix shares add up to 100%. Their simple average is therefore 100% divided by the number of selling items.

> **Equality counts as high**
> At a 25% benchmark, an item with exactly 25% sales mix is on the high-popularity side. A no-sales item is not treated as a low-popularity Reserve item; it is labeled NO SALES and excluded from the benchmarks.

Do not replace this with the often-seen 70%-of-average popularity rule. That is not the rule implemented in the reviewed InsightChef Pro report.

# The contribution benchmark.

A simple mean of positive contribution per unit.

**Item contribution reference = recorded net item sales - frozen food-cost reference.** Divide that total by the item's quantity sold to obtain its contribution per unit.

| Item | Contribution / unit | Included in benchmark? |
|---|---|---|
| A | $12.00 | Yes |
| B | $8.00 | Yes |
| C | $14.00 | Yes |
| D | $6.00 | Yes |

Benchmark = ($12 + $8 + $14 + $6) / 4 = **$10.00 per unit**. Each positive-contribution selling item gets one equal place in this average, regardless of its sales volume.

> **Not a volume-weighted average**
>
> Selling A 160 times does not give A 160 votes in the contribution benchmark. Do not substitute food-cost percentage, total dollar contribution or a sales-weighted margin for this calculation.

## Edge cases

Zero and negative contribution-per-unit items are excluded from the positive benchmark average. If there are no positive items, the benchmark is zero. Selling items are still compared with that benchmark, and equality counts as high.

This means a zero-contribution item can meet a zero benchmark. Always read the actual dollars; a category name cannot turn zero contribution into a healthy business result.

# A complete four-item example.

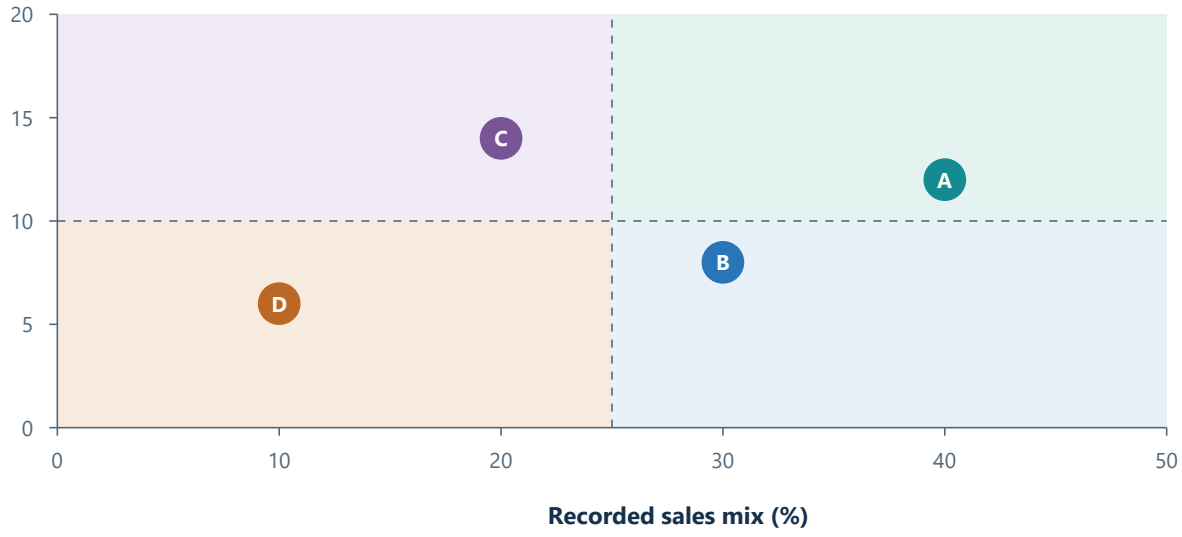
Fictional period: 400 items sold, all source data complete.

| Item | Qty | Mix | Net sales | Cost ref. | Contrib. / unit | Tier |
|---|---|---|---|---|---|---|
| A | 160 | 40% | $3,200 | $1,280 | $12 | Signature |
| B | 120 | 30% | $1,920 | $960 | $8 | Core |
| C | 80 | 20% | $1,760 | $640 | $14 | Elevate |
| D | 40 | 10% | $560 | $320 | $6 | Reserve |
| Total | 400 | 100% | $7,440 | $3,200 | - | - |

Here each item's frozen unit cost is $8. Recorded net sales per unit are $20, $16, $22 and $14. The figures are fictional and exclude any claim about operating overhead or actual COGS.

**Contribution per unit ($)**

25% / $10 shared benchmarks




**Popularity benchmark:** 1 / 4 = 25%. **Contribution benchmark:** ($12 + $8 + $14 + $6) / 4 = $10. Total contribution reference is $7,440 - $3,200 = **$4,240**.

### Check the interpretation

A clears both benchmarks. B sells well but is below $10 per unit. C clears $10 but is below 25% mix. D is below both. The $4,240 reference is not net profit.

# Move from category to action.

Use the tier as the beginning of a review, not the end.

| Tier | Investigate | Possible next step |
|---|---|---|
| Signature | Consistency, capacity, ingredient-cost drift and visibility. | Protect the product and monitor changes; do not assume it needs discounting. |
| Core | Portion accuracy, supplier usable cost, recipe structure and pricing. | Test a controlled portion or price adjustment without weakening guest value. |
| Elevate | Menu placement, description, staff familiarity, availability and occasion. | Improve the explanation or placement, then compare a fair later period. |
| Reserve | Demand, execution, exposure, duplication and strategic purpose. | Rework, replace or remove only after considering the reason it exists. |

## Why a tier can move even if an item does not

The benchmarks are shared. Adding a selling item changes N and therefore the popularity threshold. Changes to other positive contribution-per-unit items can move the contribution threshold. A plate's own numbers can stay steady while its relative classification changes.

> **Do not chase a label**
>
> Changing the period or excluding inconvenient records solely to obtain a preferred tier weakens the analysis. Record the question, comparison window and source corrections before interpreting the result.

After a supplier-cost change, first use current costs to review today's exposure. Historical tiers do not automatically rebuild with current ingredient costs.

# When the app withholds a rating.

Missing information should not be disguised as a low score.

| Status | What it means | What to do |
|---|---|---|
| NO SALES | No positive recorded sales for the item in the period. | Check availability and demand. It is excluded from both benchmarks. |
| NEEDS DATA | At least one selling item's unreversed sales lack net sales or frozen cost. | Complete the source data; all selling-item tiers can be withheld because the benchmark is shared. |
| NEEDS REVIEW | Source identity, corrections or other validation requirements are not satisfied. | Review the saved sources; do not rely on partial rankings. |
| Coverage limit | The period exceeds supported source coverage. | Narrow the period; the reviewed limits are 10,000 sales events and 1,000 published plate rows. |

## Exercise: equality and missing data

At benchmarks of 25% mix and $10 per unit, an item with exactly 25% mix and exactly $10 is **Signature**. If another selling item is missing its frozen cost, the report cannot fairly recompute a complete shared contribution benchmark.

> **What not to do**
> Do not enter an assumed zero cost, invent net sales or label an incomplete row Reserve just to make the report look finished.

A valid exact reversal cancels the original sale before the totals and missing-data checks. Corrections must preserve the correct original identity and business date.

# Quick reference & source notes.

The exact rules in one place.

| Rule | Implementation |
|---|---|
| Population | Published plates effective by the period end; positive-selling plates drive benchmarks. |
| Popularity | Item quantity / total quantity; benchmark = 1 / selling-item count. |
| Contribution per unit | (Recorded net sales - frozen cost reference) / quantity. |
| Contribution benchmark | Simple unweighted mean of positive item contribution per unit; zero if none. |
| Boundary | Equal to either benchmark counts as high. |
| No sales | Separate status; excluded from both benchmarks. |
| Missing / invalid data | Withhold affected shared rankings; do not invent zeros. |
| Tier map | High/high Signature; high/low Core; low/high Elevate; low/low Reserve. |

**Product evidence:** plate-performance.mjs and its report contract, source-reviewed October 13, 2026. The implementation explicitly preserves the workbook's four-tier rules: positive-only unweighted means and high-on-equality comparisons.

**Training scope:** the worked dataset and chart are fictional teaching examples. Suggested actions require chef and business judgment; no tier guarantees sales, quality, savings or profit.

> **The takeaway**
> Popularity tells you what sells. Contribution per unit tells you what each sale contributes before other costs. The four tiers put those two questions together.

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