



Being a West Country lad, the mention of fermentation immediately brings cider to mind. The environment we grow up in inevitably shapes our view of food and drink, and cider was simply part of the landscape. At its most fundamental, it is apple juice transformed through fermentation—yet that simple process can produce remarkable differences in flavour and character.

The fascinating thing about a lifetime in food, however, is how quickly that familiar world expands once you begin travelling and exploring other cuisines.

Miso, soy sauce, sake, kimchi, fish sauce, fermented bean pastes, cheeses, yoghurt, sourdough—the list becomes extraordinary. Fermentation doesn't simply preserve ingredients. It can create entirely new layers of acidity, aroma, savouriness, sweetness and umami.

This week we're taking the broader view. Rather than getting lost in the considerable science behind fermentation, we're looking at something immediately useful: how fermented ingredients can make our cooking more interesting.

There is a much larger world to explore, so I'll make a more detailed guide available in the Resource Library. For now, let's open the cupboard—and perhaps the fridge—and see what these remarkable ingredients can bring to the kitchen.





Kitchen Haiku

Time quietly works
Simple ingredients deepen
Flavour comes alive

This Week's Focus

Fermentation uses microorganisms and their enzymes to transform ingredients. Across different traditions, yeasts, bacteria and moulds have helped turn simple raw materials into foods and seasonings with flavours that could not exist in quite the same way beforehand.

Japan provides a particularly good illustration. Koji plays a central role in its fermentation culture and is fundamental to products including miso, soy sauce and sake.

For the chef, however, the practical lesson is simpler.

Fermented ingredients offer ready-made complexity.

A spoonful of miso, dash of fish sauce, splash of soy or spoonful of fermented chilli paste can introduce multiple flavour dimensions simultaneously.



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Flavour Lens

Profile

Savoury, umami-rich, acidic, funky, salty, sweet, earthy, fruity or deeply aromatic.

Behaviour

Fermentation transforms the original ingredient, developing new aromas, flavours and textures while often increasing complexity.

Balance Role

Adds depth, savouriness and character; can balance sweetness and richness or provide acidity and salinity.

Key Partners

Fish, meat, vegetables, grains, noodles, rice, mushrooms, chilli, ginger, garlic, citrus and fats.



Chef's Insight

One of the pleasures of exploring international cuisines is discovering ingredients that initially seem unfamiliar and eventually become indispensable.

Soy sauce is no longer confined to Chinese or Japanese dishes. Miso can enrich a butter sauce. Fish sauce can disappear almost invisibly into a meat dish. Fermented chilli pastes can bring both heat and depth.

Respect the tradition they come from—but don't be afraid to understand what they can do elsewhere.

That is where exploration becomes creativity.

[Click for:](#) Podcast #30 Fermented Ingredients.mp3

Ingredient Spotlight — Miso

Miso is made by fermenting and maturing soybeans with koji and salt, with regional variations producing remarkably different styles. Its usefulness extends far beyond miso soup. Used thoughtfully, it can enrich marinades, sauces, glazes, dressings, vegetables and even sweet preparations.

Think of it less as a specifically Japanese flavour and more as another powerful seasoning in the chef's repertoire.

Kitchen Curiosity

Fermentation is not one single process.

Different microorganisms create very different results. Yeasts can produce alcohol, bacteria can produce acids, while mould cultures such as koji help create some of the extraordinary depth associated with Japanese fermented seasonings.

That is why the fermented ingredient cupboard can range from cider and yoghurt to miso, soy sauce and fish sauce.





Kitchen Practice

Technique: Begin by using fermented ingredients as seasonings rather than making them the dominant flavour.

Timing: Some benefit from cooking and integration; others are most expressive when added towards the end.

Common Mistakes: Adding too much, overlooking their existing salt or acidity, or combining several powerful fermented products without considering the overall balance.

Professional Approach: Ask what the ingredient is contributing—umami, acidity, sweetness, salinity, aroma or complexity—and adjust the rest of the seasoning accordingly.



Pairing Logic

- Miso — salmon, aubergine, mushrooms, butter, sesame
- Soy Sauce — meat, fish, rice, mushrooms, ginger
- Kimchi — pork, rice, eggs, noodles, tofu
- Gochujang — beef, chicken, vegetables, sesame
- Fish Sauce — seafood, pork, chicken, chilli, lime
- Yoghurt — lamb, chicken, cucumber, herbs, spices
- Sourdough — cheese, cured meats, soups, fermented vegetables
- Cider — pork, apples, cheese, mustard, root vegetables



A practical application of this week's flavour system

Nobu-Inspired Miso Salmon with Pickled Vegetable Garden

Inspired by Nobu Matsuhisa's iconic miso-marinated black cod, salmon is marinated in white miso, sake and mirin, then roasted and caramelised until glossy. A colourful garden of lightly pickled vegetables provides freshness, acidity and crisp texture against the rich fermented miso glaze.

What This Dish Teaches

The interesting part isn't simply the miso. Several fermented products contribute different things to the same dish. Miso provides savoury depth and umami; sake brings aroma; mirin contributes sweetness and gloss; while the rice-vinegar-pickled vegetables bring the bright acidic contrast we explored in last week's journal.

One plate therefore demonstrates an important principle:

Fermented ingredients don't all perform the same job.

The skill lies in understanding what each one contributes.



Recipe Link: [Nobu Inspired Miso Salmon with Pickled Vegetable Garden](#)



The Liquid Counterpoint

A chilled Junmai sake makes a natural partner, echoing the fermented character of the marinade while remaining clean enough for the salmon. For a non-alcoholic alternative, chilled sparkling green tea with cucumber provides freshness and gentle tannin against the richness of the fish.



From the Kitchen

Start small. Taste again.

Remember that many fermented ingredients bring salt, acidity or sweetness along with their distinctive flavour.



Professional Uses

One of the pleasures of exploring international cuisines is discovering ingredients that initially seem unfamiliar and eventually become indispensable. Soy sauce is no longer confined to Chinese or Japanese dishes. Miso can enrich a butter sauce. Fish sauce can disappear almost invisibly into a meat dish. Fermented chilli pastes can bring both heat and depth.



Chef's Reflection

Fermentation doesn't simply preserve ingredients—it creates flavours that weren't there before.

And for the curious cook, that makes the possibilities almost endless.

FLAVOUR NOTES
SERIES II | ISSUE 20

FERMENTED INGREDIENTS

The Living Flavour Notes

Flavour System Focus: Ingredient Systems

Fermented ingredients bring ready-made complexity, balancing savouriness, acidity, sweetness, salinity and aroma.

MISO

SOY SAUCE

KIMCHI

YOGHURT & CHEESE

SOURDOUGH

FISH SAUCE

CIDER & SAKE

1. INGREDIENT FAMILY

Soy & bean — miso, soy sauce, doenjang
Vegetables — kimchi, sauerkraut, pickles
Dairy — yoghurt, cultured cream, cheese
Grains — sourdough, fermented flours
Chilli — gochujang, fermented hot sauces
Fish & seafood — fish sauce, shrimp paste
Alcoholic / vinegar — sake, cider, wine, rice vinegar

2. SYSTEM FUNCTION

Adds ready-made complexity
Builds umami, savouriness and depth
Can balance sweetness and richness
Provides acidity, salinity, aroma or gloss
Strengthens soups, marinades, dressings and glazes
Turns simple dishes more expressive

3. MECHANICS / BEHAVIOUR

Microorganisms and enzymes transform ingredients over time
Flavours develop beyond the original raw material
Fermented products may bring salt, sweetness, acidity or funk together
Some integrate beautifully through cooking
Others are most expensive late or at the finish
Small quantities can have a large effect

4. KITCHEN PRACTICE

Begin by using fermented ingredients as seasonings
Ask what each contributes: umami, acidity, sweetness, salinity, aroma or complexity
Taste before adding further salt or acid
Avoid combining several powerful fermented ingredients without purpose
Use fermentation to support good cooking, not replace it

5. PAIRING LOGIC

Miso — salmon, asparagus, mushrooms, butter, sear
Soy sauce — meat, fish, rice, mushrooms, ginger
Kimchi — pork, rice, eggs, noodles, tofu
Gochujang — beef, chicken, vegetables, sear
Fish sauce — seafood, pork, chicken, chili, lime
Yoghurt — lamb, chicken, cucumber, herbs, spiced
Cider — pork, apple, cheese, mustard, root vegetables

6. IN COOKING

Seasoning — soy sauce, fish sauce
Marinade — miso, yoghurt
Sauce — miso, fermented bean pastes
Finishing — soy, fish sauce, vinegar
Glaze — miso, gochujang
Dressing — yoghurt, miso, vinegar
Condiment — kimchi, pickles, fermented chilli
Dough / batter — sourdough, fermented flours

7. BALANCE BEFORE ADDING MORE

Miso — umami + salt + sweetness
Soy sauce — umami + salt
Fish sauce — umami + salt
Gochujang — heat + sweetness + umami
Kimchi — acidity + heat + umami
Yoghurt — acidity + richness
Vinegar — acidity + character
Taste first, then adjust the rest of the seasoning

8. CONTEXT & PLACE

Britain — cider, cheeses, ales and traditional ferments
Japan — miso, soy sauce, sake and rice vinegar
Korea — kimchi, doenjang and gochujang
Southeast Asia — fish sauces, shrimp pastes and fermented beans
Europe — cheeses, yoghurt, sourdough, wines and fermented vegetables
Fermentation belongs to many traditions, not one single cuisine.

WORKING EXAMPLE

Nobu-Inspired Miso Salmon with Pickled Vegetable Garden

- White miso — savoury depth and umami
- Sake — fermented aroma and complexity
- Mirin — sweetness, seasoning and gloss
- Rice vinegar — bright acidic contrast in the vegetables

One plate shows that fermented ingredients perform different roles.
The skill lies in understanding what each fermented ingredient contributes.

Liquid Counterpoint: Chilled Junmai sake, or sparkling green tea with cucumber.

9. PRACTICAL APPLICATIONS

Drop a better sauce with a small spoonful of white miso
Use fish sauce sparingly in meat, seafood or vegetable dishes
Balance rich foods with yoghurt, kimchi or pickled vegetables
Use sake, sake or wine when fermented aroma supports the dish
Respect traditional uses, then explore intelligently beyond them

10. PROFESSIONAL NOTES

Start with small quantities
Consider mixing salt, sugar and acidity before seasoning further
Pair strongly fermented products with ingredients that can support them
Subtle use is often more effective than obvious use
Fermented ingredients expand the chef's flavour vocabulary

11. CHEF'S REMINDER

Do not add a fermented ingredient simply because it is interesting.
Understand what it contributes, then give it a purpose in the dish.

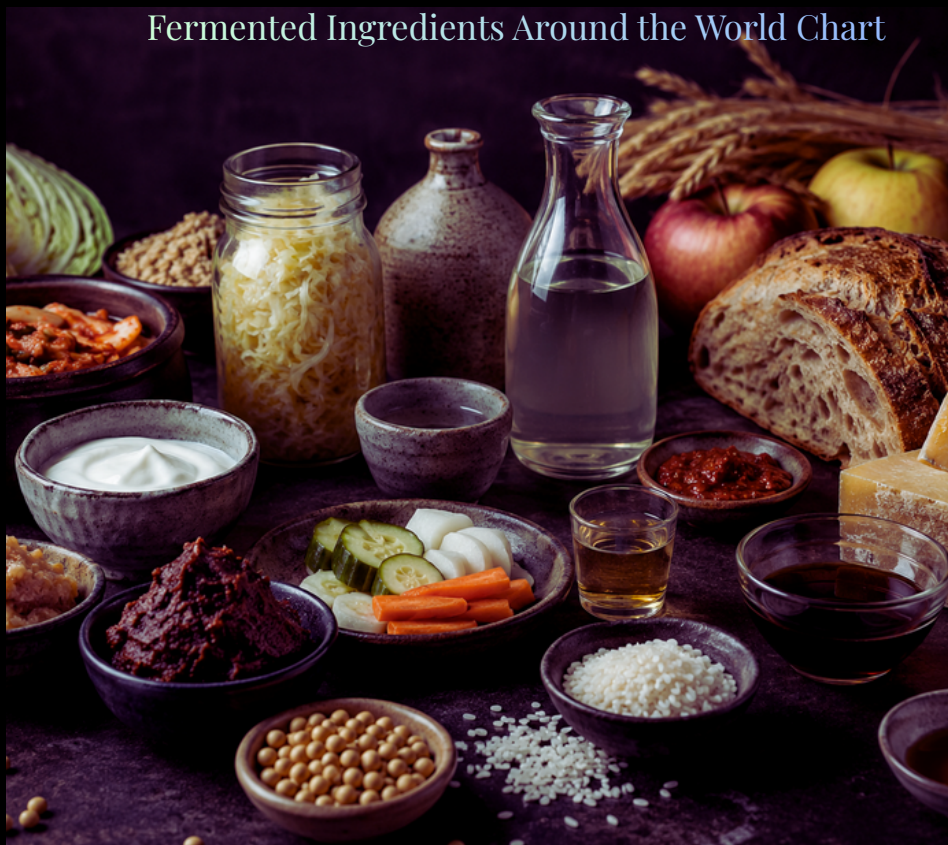
The Fermented Ingredient Family

Family	Examples	Primary Contribution
Soy & Bean	Miso, soy sauce, doenjang	Umami, salt, depth
Vegetables	Kimchi, sauerkraut, pickles	Acidity, freshness, complexity
Dairy	Yoghurt, cultured cream, cheese	Tang, richness, savouriness
Grain	Sourdough, fermented batters	Aroma, acidity, texture
Chilli	Gochujang, fermented hot sauces	Heat, sweetness, depth
Fish & Seafood	Fish sauce, shrimp paste	Intense umami, salinity
Alcoholic	Sake, wine, beer, cider	Aroma, acidity, complexity
Vinegar	Rice, wine, cider, coconut	Controlled acidity, brightness

Larger Reference Charts

Fermented Ingredients & Their Application Chart

Fermented Ingredients Around the World Chart



Last Word

Fermentation doesn't simply preserve ingredients.
It creates flavours that weren't there before.

Further Reading & Resources

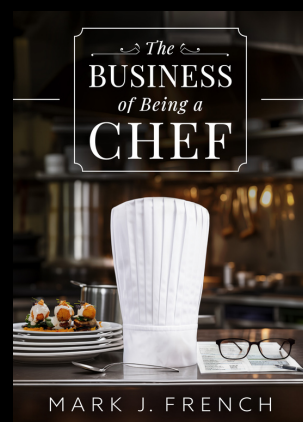
From the Library

See flavour balance charts and acidity mapping in the ChefsNotebooks archives.

The Business of Being a Chef

For a deeper understanding of flavour structure and kitchen systems, The Business of Being a Chef provides useful operational context alongside culinary insight.

<https://chefsnotebooks.com/books>



The Business of Being a Chef is the result of more than 30 years of experience in hotels and restaurants throughout the world. It is a guide to managing the multiple business demands of today's executive chef, encompassing diverse areas including cooking, taste, food safety, human resources, finance, and sales & marketing, amongst others. It is also a great resource for operations managers.

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Mark J French is a hotelier, chef, consultant, and author of several books on culinary arts and business. Based in the UK and Philippines, he blends classical training with global flavours.

