Douchi — The Beans That Aren't Black Beans

Fermented soybeans, sold under a name that sends cooks to the wrong shelf. What they are, the four ways they are made, and how to tell them apart before you cook.

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Read This First: These Are Not the Black Beans You're Picturing

If you came here from a search for "Chinese black beans," the odds are that what you are picturing is a glossy black legume that goes into a burrito. It isn't this. Those are **black turtle beans** (*Phaseolus vulgaris*) — a common bean, cooked and eaten as a starch. Douchi is a fermented *soybean* (*Glycine max*), wrinkled, salt-cured, and closer in character to aged Parmesan than to a legume.

This is not a technicality. Substituting canned black beans for douchi produces a dish that tastes nothing like what it was supposed to be, and it is the single most common mistake cooks make with this ingredient. The two are different species that have undergone different processes and are used for different jobs.

FIVE THINGS THAT GET CALLED "BLACK BEAN" — ONLY ONE IS DOUCHI

What it is	Species	Fermented?	Tastes like	Used for
Douchi 豆豉	Soybean	**Yes**	Intensely salty, deep savoury, faintly funky	Seasoning: stir-fries, steamed fish, braises
Black turtle bean	*Phaseolus vulgaris*	**No**	Earthy, starchy, not salty at all	A starch or protein in its own right
Black bean paste 豆豉酱	Soybean	**Yes**	Salty, savoury, smooth — no bean texture	Sauces where you want no texture
Black bean sauce (jarred)	Soybean	**Yes, then processed**	Sweeter, garlicky, diluted	Speed. A shortcut, not a substitute
淡豆豉 dàn dòuchǐ	Soybean	**Yes, differently**	Low-salt, faintly sweet — **a medicine, not a condiment**	Chinese Pharmacopoeia decoctions

The name collision that costs people dinner. 豆豉 and 淡豆豉 share two characters but almost nothing else. 淡豆豉 is a pharmacopoeia item — black soybeans steamed in a decoction of mulberry leaf and sweet wormwood, then fermented with deliberately little salt, dispensed in decoctions at 6–12 g. If a Chinese-language page is discussing 淡豆豉 as a remedy, it is not discussing your stir-fry.

What Douchi Actually Is

Whole soybeans, steamed, inoculated with a mould, salted, and left to ferment. That much is always true. What varies — enormously — is **which mould**, and therefore how long it takes.

FOUR FERMENTATION TRADITIONS, BY ORGANISM

Type	Organism	Where you meet it	Koji, then post-fermentation
Aspergillus 曲霉型	*Aspergillus oryzae*	Yangjiang, Liuyang — the most common type on export shelves	Koji in days; salted post-fermentation for weeks to a couple of months
Mucor 毛霉型	*Mucor racemosus* and relatives	Traditional Yongchuan, Tongchuan, Sichuan generally	Longer koji, then months — **nine months or more** in the traditional method
Rhizopus 根霉型	*Rhizopus* spp.	Rare; closer to tempeh in method	Days of koji, about a month of ageing
Bacterial 细菌型	*Bacillus subtilis* and relatives	Yunnan water douchi, Shandong eight-treasure douchi	Shorter, and less dependent on a separate koji stage

One word, twentyfold spread. Yongchuan's 2024 local standard defines its own Mucor type at nine months or more and its modern Aspergillus type at about two weeks. Both are sold as 永川豆豉. They do not taste the same, and a recipe that assumes one will not get the other's result.

The Shelf, by Region

Three of the regional styles carry protected status, which is the closest this ingredient comes to a specification. If you are choosing a first bottle, the Cantonese style is the safe default.

REGIONAL STYLES AND WHAT PROTECTS THEM

Style	Region	Mould	Ageing	Character
Yangjiang 阳江	Guangdong	Aspergillus	Weeks to a couple of months	Clean, balanced, earthy. Local standard DB4417/T 4-2022
Yongchuan 永川	Chongqing	Mucor (traditional) or Aspergillus	⩾9 months traditional; ~2 weeks modern	Dark, glossy, savoury with a faint sweetness. National GI 2011; national intangible heritage 2008
Liuyang 浏阳	Hunan	Aspergillus	Two rounds of steaming and fermenting	Smaller beans, deeper colour. Registered national GI mark

What It Does in the Kitchen

Douchi is a **seasoning**, not a vegetable — the quantity in a dish is measured in teaspoons, and its job is to add salt, savoury depth and a fermented edge to something else. It is not a thing you serve a portion of.

HOW IT IS USED, AND WHAT TO DO WHEN IT IS MISSING

Job	How douchi does it	If you don't have it
Salt + deep savoury	Rinse, chop, and fry in oil before the main ingredient goes in — the aroma blooms in fat	Light soy for the salt, plus a little miso or fermented bean paste for the depth
Texture contrast	Whole beans stay intact and give small savoury bursts against soft ingredients like steamed fish or bitter melon	Nothing matches this. A paste gives the flavour but not the texture
Colour	Contributes a dark, dull brown — a supporting player, not the source of a lacquer finish	Dark soy, if colour is the only goal
The funk	A fermented, almost cheese-like edge that soy sauce alone cannot reach	A small amount of fermented tofu (腐乳) or shrimp paste, in dishes where that direction is welcome

Whole beans and jarred sauce are not interchangeable by volume. You will find "use twice as much sauce" advice online. It doesn't hold — jarred sauce varies in salt and solids by brand, so start lower and taste. What you lose either way is the texture: a sauce gives you the flavour without the little bursts that make whole douchi worth buying.

Buying and Keeping It

WHAT TO LOOK FOR, AND HOW IT KEEPS

Signal	What it means
Plump, intact beans	Good. Dry, powdery or broken beans have been sitting too long
Concentrated, soy-sauce-like smell	Good. It should smell of concentrated savoury depth, not of mould
Ammonia or sour note	Past its best. Put it back
White crystals on the surface	Harmless — tyrosine, an amino acid that precipitates out as it ages
Ingredient list	Soybeans, salt, culture. That is the whole list. Added MSG or sugar tells you it was built to a price
Storage	Airtight, refrigerated. The salt content means it keeps for a long time; the flavour deepens rather than fading

What the Fermentation Actually Changes

The isoflavone claim holds up. Raw soybeans carry isoflavones bound to sugars, which the gut absorbs poorly. Fermentation cleaves those sugar bonds and leaves the aglycone form, which is taken up more readily — the same transformation that happens in miso and tempeh, and the main reason fermented soy outperforms plain cooked soybeans in absorption studies.

Two claims that do not hold up, and are worth dropping. Douchi is not a probiotic food: it is sold dried and cooked at wok temperature, so any live culture is gone before it reaches the plate. And the vitamin story is real but not specific — fermented soy products do tend to carry more of certain B vitamins than the raw bean, but the amount depends on the mould and the process, and quoting a figure would be inventing precision.

And one that matters more than either: douchi is extremely salty. Commercial samples run into the thousands of milligrams of sodium per 100 g. Rinse it, taste before you season, and treat it as the salt in the dish rather than an addition to it.

Where to Go Next

The full ingredient page — buying, forms, substitutes, and the summer-food argument — is Douchi, the fermented black beans. If you are building a pantry rather than identifying one jar, the Chinese ingredients list PDF puts all sixteen staples on three pages by job and stand-in. And for the other fermented paste people confuse this with, doubanjiang is a broad bean paste from Sichuan — different bean, different process, different dish.

Where Each Claim Came From

Species	Douchi — the full ingredient page
Regional standards	Yongchuan 2024 local standard (Mucor ⩾9 months, Aspergillus ~2 weeks); Yangjiang DB4417/T 4-2022; Liuyang national GI mark
淡豆豉	Chinese Pharmacopoeia entry and processing method (mulberry leaf + sweet wormwood decoction, low salt)
Isoflavones	Fermented soy studies on β-glucosidase conversion of glycosides to aglycones
Related	Chinese ingredients list (PDF)

Where the numbers come from. Mould types and ageing ranges: regional product standards — Yongchuan's 2024 local standard distinguishes its Mucor and Aspergillus types with nine-month and two-week minimums respectively; Yangjiang is covered by DB4417/T 4-2022; Liuyang holds a national GI mark. 淡豆豉 dosage and processing: the Chinese Pharmacopoeia entry, prepared by steaming black soybeans in a decoction of mulberry leaf and sweet wormwood.

What is a judgement, not a measurement. Flavour descriptions are culinary assessment, not analytical results. Sodium is described qualitatively on purpose: commercial douchi samples range from roughly 1,500 to over 6,000 mg per 100 g depending on the product, so any single figure would mislead. The advice on substituting jarred sauce is a tasting instruction rather than a ratio, for the same reason.

What this sheet does not claim. Douchi is not a probiotic food once cooked, and the vitamin content of fermented soy varies too much by process to state as a number. Both are common claims online; neither survives checking.

Missing Umami — a reference library about Chinese cooking ingredients and techniques. It does not publish recipes; it explains why ingredients behave the way they do. Version 1.0, published 5 November 2026. When this document is revised the version and last-updated date on page 1 change; the file name stays the same so existing links keep working.