



SPANISH-JAPANESE CROSSOVER · MODERN KITCHEN · SOUS VIDE VEGETABLE
· SIDE · VEGETABLE CENTERPIECE · PART OF A COMPOSED PLATE

Zanahorias Sous Vide · 85°C · Glaseado de Miso

Whole rainbow carrots bagged with butter, thyme, and a pinch of salt; held at precisely 85°C for 90 minutes; finished in a hot pan with a white-miso-mirin glaze that caramelizes in 60 seconds. The vegetable-SV masterclass. Teaches cell-wall pectin breakdown below starch-gelatinization threshold — why carrots cooked at 85°C are a different species from carrots cooked at 100°C. The missing vegetable side for every SV protein dish Pablo already has.

Protein None (side dish — pairs with any SV protein main)

Serves 4 - 6 as a substantial side

Difficulty Beginner-Intermediate

Active 15 min active (5 min bag + 10 min finish)

Total 90 min SV + 10 min finish = 1 h 40 min total

THE STORY

The Temperature Below Which Everything Changes

Most recipes say "cook carrots until tender." Most US home cooks achieve this by boiling them at 100°C until the texture collapses. The result is soggy, grey, and indistinguishable from any other boiled vegetable. You can improve it with glaze and salt — but you're working against the cooking method, not with it.

Sous vide at 85°C for 90 minutes is a different cook entirely. At 85°C, *pectin breaks down* (the cell-wall cement that holds plant structure rigid), producing a yielding-but-structured texture. At 85°C, *starch does not yet gelatinize fully* (that happens around 90°C for carrot starch) — so the natural sweetness stays intact rather than washing out into the cooking water. At 85°C, *chlorophyll in rainbow varieties stays bright* (chlorophyll degrades at 90°C+), so the visual dimension of rainbow carrots is preserved.

The result is a carrot that is sweet (starch intact), yielding (pectin broken), vibrantly colored (chlorophyll + anthocyanins preserved), and carries its own juices as a sauce (the butter + thyme in the bag has been infused with carrot sugars for 90 min). A finishing caramelize in a hot pan with white miso + mirin glaze adds a savory-sweet-umami register that makes it a standalone dish rather than a side.

This recipe also answers an infrastructure question in the library: Pablo has five SV proteins — [duck-magret-sv-kamado](#) ✓, [miso-salmon-sv](#) ✓, [perfect-sous-vide-steak](#) ✓, [short-ribs-48h](#) ✓, [lamb-leg-sv-kamado](#) ✓ — and before today zero SV vegetable sides. The carrot is the default side for every single one of those proteins. This recipe teaches the vegetable-SV technique, and the same method (bag + butter + herb + 85°C/90min + miso-glaze finish) extends directly to parsnips, beets, fennel bulb, celery root, whole shallots, baby leeks. One technique, twenty downstream vegetables.

Specs

<p>SV TEMPERATURE</p> <p>85°C (185°F) – below 90°C pectin-break threshold</p>	<p>SV TIME</p> <p>90 min (fresh medium carrots) · 2 h (large whole carrots)</p>	<p>FINISH</p> <p>Hot cast iron + white miso-mirin glaze, 60 sec sear per side</p>	<p>DIFFICULTY</p> <p>Beginner- Intermediate</p> <p>●●○○○</p>
<p>YIELD</p> <p>4-6 as substantial side (600-800 g carrots)</p>	<p>ACTIVE TIME</p> <p>15 min</p>	<p>TOTAL TIME</p> <p>1 h 40 min</p>	<p>HOLD</p> <p>Can hold in SV bath at 85°C for up to 3 hours before finish; flex for dinner timing</p>
<p>KEY RULE</p> <p>Never above 85°C – 90°C starts starch gelatinization, washes out sweetness</p>	<p>BAG</p> <p>Single layer, carrots not overlapping – even pectin break</p>		

UMAMI ADAPTATION

What Changed & Why

The two-tier question is about carrot variety + miso quality. SV technique is identical across tiers. The ● Tier A (Everyday) uses grocery rainbow carrots (Whole Foods multi-color pack) + grocery Hikari or Marukome white miso + European butter + fresh

supermarket thyme. Produces a legitimate side dish, sweet and structured, that will reliably earn compliments. The ● Tier B (No-Limits) uses heritage-variety carrots (Glaser Organic Farms Miami, summer organic market, or Baker Creek heirloom seeds for home-grown) + Saikyo white miso from Kyoto via The Japanese Pantry + European cultured-butter (Vermont Creamery Cultured or Échiré) + fresh-cut thyme from a home plant. Flavor step-up is clearly perceptible: heritage carrots have real varietal character (Yellowstone is earthy-nutty, Cosmic Purple is anthocyanin-forward, Paris Market is intensely sweet); Saikyo miso is markedly sweeter + less salty than grocery white miso; cultured butter adds a fermented-lactic complexity that standard butter doesn't have.

CHANGE	ORIGINAL	UMAMI VERSION	WHY
TECH	Roast carrots at 200°C for 25 min, toss in olive oil and salt	SV 85°C / 90 min in butter + thyme + salt bag, then 60-sec miso-mirin caramelize in cast iron	Roasting destroys the carrots' visual variety (rainbow colors fade to uniform orange-brown from chlorophyll breakdown) and over-caramelizes the starch (sweetness washes out, replaced by Maillard-only). SV at 85°C preserves color and sweetness; the 60-sec finishing sear adds Maillard in the one register it matters — the bright miso-mirin glaze — without obliterating the vegetable's other dimensions.

CHANGE	ORIGINAL	UMAMI VERSION	WHY
ADD	—	Precise 85°C hold — never 90°C, never 82°C	Temperature is the entire difference between this and a conventional vegetable cook. 85°C is the sweet spot: above pectin-breakdown threshold (starts around 80°C, complete by 85°C), below starch-gelatinization (starts 90°C), below chlorophyll-degradation (starts 90°C for most varieties). Any home-kitchen SV circulator will hold 85°C precisely. Stovetop or oven can't; this is why SV is the technique for carrots-done-right.
ADD	—	White miso + mirin glaze applied in the finishing pan (not in the bag)	Miso in the SV bag would over-salt the carrots (the 90-min contact would season every cell beyond palatability). Miso applied at the 60-sec finish stays on the surface as a glaze, caramelizes in the heat to a sweet-savory-umami coating, and contrasts against the pure-carrot interior. The two-register bite is the point: miso crust + carrot heart.

CHANGE	ORIGINAL	UMAMI VERSION	WHY
ELEV	Serve the same day, straight from the SV bath	Option: SV one day ahead, shock in ice bath, refrigerate in bag up to 3 days, finish at service	SV'd carrots (still bagged, ice-shocked) hold their 85°C-cook-state perfectly for 3 days in the fridge. Finish with a 30-second warm-through in the hot miso-mirin glaze pan at service. This makes the recipe dinner-party-friendly (prep Saturday afternoon, plate at dinner time Sunday) without any quality loss. Restaurant kitchens do exactly this for mise-en-place.
SKIP	Peel the carrots	Don't peel. Just scrub with a vegetable brush.	The skin of a fresh carrot carries flavor compounds (concentrated beta-carotene, terpenes) that are lost with peeling. It also holds up beautifully in SV — there's no tough texture issue at 85°C. A scrubbed unpeeled carrot looks rustic + tastes fuller. Peeling is a legacy habit from lower-quality carrots that had tough skins; fresh Whole Foods or heirloom carrots don't need it.

What You Need

● Everyday

The Carrots

- 600-800 g **rainbow carrots** — **Whole Foods multi-color carrot pack** (Brickell or Coral Gables; see [sourcing/08-produce-vegetables](#)). Select medium carrots (2-3 cm diameter), roughly equal in size for even cooking. Leave tops on if they're fresh — trim to 2cm stub for visual (optional).

The Bag Aromatics

- 30 g (~2 tbsp) **unsalted European butter** — **Kerrygold** or **President** (Whole Foods).
- 4-6 sprigs **fresh thyme** — the smaller the sprigs, the better the infusion.
- 3 g (~1/2 tsp) **Maldon flaky salt** — pre-seasons the cells during the 90-min SV.

The Miso-Mirin Glaze

- 25 g (~1.5 tbsp) **white miso** — **Hikari White Miso** or **Marukome Shinshu White Miso** (Whole Foods Japanese section, Kimchi Mart; see [sourcing/05-japanese-pantry](#)).
- 15 g (1 tbsp) **hon-mirin** — Takara Kotteri.
- 10 g (2 tsp) **rice vinegar** — Mizkan (just a balance splash).
- 5 g (1 tsp) **usukuchi shoyu** — Kikkoman Usukuchi.
- 5 g (~1 tsp) **sesame oil** — for the final drizzle.

The Service Finish

- **Black sesame seeds** (1 tsp) toasted 30 sec in the pan before plating — optional but visually striking.
- **Fresh chopped chives or thyme leaves** — 1 tsp, scattered at service.

No Limits

The Carrots (Tier B)

- 600-800 g **heritage-variety rainbow carrots** — **Glaser Organic Farms** (Coconut Grove Saturday Market; see [sourcing/23-miami-local-directory](#)) or grown-at-home from **Baker Creek** or **Row 7** heirloom seed (Yellowstone, Cosmic Purple, Paris Market varieties are the summit). Varietal character is the main difference from grocery rainbow carrots — each color has distinct flavor profile.

The Bag Aromatics (Tier B)

- 30 g **cultured European butter** — **Vermont Creamery Cultured Butter** (Whole Foods) or **Échiré AOP** (via Murray's Cheese NYC or specialty Italian importers). Cultured butter's lactic-acid-fermented complexity amplifies the aromatic infusion.
- 6-8 sprigs **fresh home-grown thyme** — a potted thyme plant is a permanent pantry upgrade (\$8/plant at Home Depot garden section; lives years).
- 3 g **Sal de Ibiza** (Balearic artisan sea salt) — cleaner mineral profile than standard sea salt.

The Miso-Mirin Glaze (Tier B)

- 25 g **Saikyo Miso (Kyoto style)** — via [The Japanese Pantry](#). Markedly sweeter and less salty than grocery white miso — Kyoto-style preparation uses higher-percentage koji.
- 15 g **Sumiya Bunjiro Mikawa Hon-Mirin** — The Japanese Pantry (1911 producer).
- 10 g **Ito Jozo Fujisu 120-year-aged rice vinegar** — Market Hall Foods.
- 5 g **Yamaroku 4-year kioke-aged shoyu**.
- 5 g **Kadoya Pure Sesame Oil** (Japanese toasted sesame, higher grade than grocery; via Japanese importer).

EQUIPMENT

Your Kit

- Sous vide circulator (Anova or equivalent) — target hold at 85°C precise
 - SV water bath container (4-8 qt plastic bin or large stock pot)
 - Vacuum sealer (suction sealer or chamber sealer) + bags — needed for bag adherence
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- Alternative: zip-top freezer bags with water-displacement seal technique (for occasional use)

- Kitchen scale — for glaze ratio

- Cast iron skillet (12-inch) — for the 60-sec finishing sear

- Ice water bath bowl — optional for holding after SV

- Serving platter — large enough to spread carrots in a single layer

MISE EN PLACE

Before You Start

- Carrots washed + scrubbed with veg brush. Tops trimmed to 2cm stub. Unpeeled.

- Carrots arranged single-layer in bag (do NOT overlap — overlapping produces uneven pectin break).

- Butter cut into small cubes, evenly distributed in bag over carrots.

- Thyme sprigs laid on top of carrots.

- Salt sprinkled evenly over the carrots.

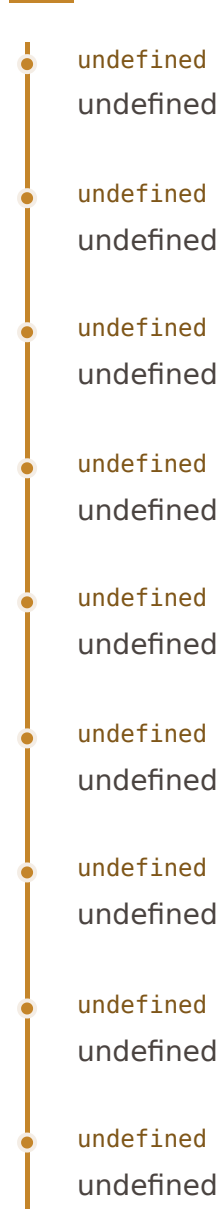
- Bag vacuum-sealed — maximum vacuum (need full adherence to carrots for heat transfer).

- SV bath preheating to 85°C (Anova ~10-15 min to pre-heat 6-qt container).

- Glaze ingredients weighed in a small mixing bowl at the stove (combine and whisk at T-10m, not pre-made — mirin oxidizes when it sits).

- Cast iron on medium-high heat, pre-heating from T-10m to avoid temperature shock at plating.

Timeline



METHOD

The Cook

1 Phase 1 · Bag Prep — 5 min

1. Wash carrots under cold running water. Scrub with a vegetable brush. Trim carrot tops to 2 cm stub (optional visual).
2. Do NOT peel. The skin carries flavor and holds up at 85°C.
3. Cut carrots into halves lengthwise IF they're larger than 3 cm diameter. Leave small carrots whole.
4. Lay carrots single-layer in a vacuum bag. Do NOT overlap — overlapping produces uneven pectin break because heat transfer is uneven.
5. Distribute 30 g cubed butter evenly over carrots. Lay 4-6 thyme sprigs on top. Sprinkle 3 g Maldon salt evenly.
6. Vacuum-seal with maximum pressure. The bag should adhere tightly to the carrots — no air pockets.



WHY THIS WORKS

Single-layer arrangement is critical. The sous vide bath transfers heat through water at a precise rate; air pockets around overlapping carrots create insulation zones where heat delivery is delayed. A single-layer bag finishes its pectin break uniformly at 90 minutes. An overlapping bag has carrots in the middle still firm while the edges are perfectly done. Vacuum pressure matters too — maximum suction brings the bag into direct contact with each carrot surface, ensuring uniform conduction.

2 Phase 2 · Sous Vide Cook — 90 min (pectin breakdown)

1. Fill SV bath container with water. Set circulator to 85°C (185°F).
2. Wait for the bath to pre-heat fully (15-20 min for most circulators on 6-qt containers).
3. Submerge the sealed bag. Weight it down if it floats (a heavy spoon or binder clip works).
4. Set a 90-min timer. Walk away. SV is unattended.
5. At 90 min: verify the carrots feel tender-but-structured through the bag (press gently with a finger — should give slightly but not collapse). If still firm, extend 15 min at a time up to 2 hours max.
6. Remove bag from bath at 90 min (or when tender-but-structured).



WHY THIS WORKS

85°C is the precise sweet spot. Below 80°C: pectin doesn't break down fully (carrots stay fibrous-raw-feeling). Above 90°C: starch gelatinizes + sweetness washes into the bag liquid instead of staying in the cells. At 85°C: pectin breaks (tender), starch stays structured (sweet), chlorophyll + anthocyanins don't degrade (vibrant color). The 90-min timer gives the heat sufficient contact time to break pectin through the carrot's radial structure — center to edge — uniformly.

3 Phase 3 · Glaze Prep — 5 min

1. In a small bowl, whisk together: 25 g white miso, 15 g mirin, 10 g rice vinegar, 5 g usukuchi shoyu, 5 g sesame oil.
2. Whisk until smooth (miso should fully dissolve — no lumps). This takes 30-60 seconds of whisking.
3. Set aside at room temperature. The glaze is ready when smooth + pourable but not watery.
4. If miso clumps refuse to dissolve, pass glaze through a fine-mesh sieve.



WHY THIS WORKS

Miso is a protein paste. Whisking with liquid (mirin + vinegar + shoyu) breaks the protein matrix into a smooth sauce. The sesame oil adds a finishing aromatic without affecting viscosity. The final consistency should be like a thin glossy syrup — pourable, not so thick it clumps, not so thin it runs off the carrots.

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Phase 4 · The Finish — 2 minutes, pan-hot

1. Pre-heat cast iron to medium-high (425-450°F / 220-230°C surface temperature).
2. Remove bag from SV bath. Snip corner + drain the butter-carrot juices into a small bowl (keep; these are liquid gold).
3. Transfer carrots to the hot pan, single layer. Season side facing up with a pinch of salt.
4. Sear 45-60 seconds — do NOT move the carrots. They should develop a light golden surface.
5. Flip each carrot. Pour the saved bag juices over + add the miso-mirin glaze. The glaze will hiss + caramelize on the pan contact points.
6. Stir/toss gently with tongs for 30-45 seconds until every carrot is glossy + coated.
7. Remove from heat. Transfer to warm serving platter.
8. Scatter toasted black sesame + chopped chives. Drizzle any remaining glaze from the pan over the carrots. Serve immediately — the glaze holds at serving temperature 10-15 minutes if plate is warm.



WHY THIS WORKS

The finishing sear adds Maillard browning at the pan-contact surface — a thin but intensely flavored crust of caramelized miso-sugars. The underneath of the carrot stays at its 85°C-cooked texture + flavor. The contrast between the dark-umami crust and the bright-sweet interior is the eating experience.

QUICK REFERENCE

Timing Cheat Sheet

STEP	TIME	CUE
Prep carrots + bag	T- 1 0 5 m	Wash, scrub, bag single-layer, butter + thyme + salt, vacuum-seal
SV preheat	T- 1 0 5 m	Anova to 85°C (15-20 min for 6 qt)
Submerge + start 90-min timer	T- 9 5 m	Weight bag if floating
Pre-heat cast iron	T- 1 5 m	Medium-high; surface 220-230°C

STEP	TIME	CUE
Make glaze (fresh)	T- 1 0 m	25 + 15 + 10 + 5 + 5 g; whisk smooth
Remove bag, reserve juices	T- 5 m	Drain butter-carrot liquid into bowl
Sear carrots 45-60 sec/side	T- 3 m	Single layer; don't move; light golden
Glaze + toss	T- 1 m	Bag juices + miso-mirin glaze; 30-45 sec
Plate + garnish	T+ 0 m	Warm platter; sesame + chives + final glaze drizzle
Serve	T+ 0 m	Within 10 min of plating; glaze sets as it cools slightly

TROUBLESHOOTING

Emergency Protocols

 UNDEFINED

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DEEP DIVES

Technique Notes

● **Universal: 85°C Is the Vegetable-SV Sweet Spot**

SOUS VIDE · VEGETABLE FOUNDATION

For the carrot family + most root vegetables (parsnips, beets, fennel bulb, celery root, whole shallots, baby leeks): 85°C / 90 min is the reliable target. Why 85 and not 82 or 88: below 80°C, pectin doesn't break down; above 90°C, starch gelatinizes + washes out sweetness + chlorophyll degrades. 85°C lives in the narrow band where pectin breaks (tender) + sweetness stays (intact) + color preserves (vibrant). This is the universal vegetable-SV hold. Memorize it for the vegetable library.

● **Sous Vide · Cross-Vegetable Extension**

SOUS VIDE · VEGETABLE EXTENSIBILITY

The 85°C/90 min technique + butter-herb-salt bag + miso-mirin finish extends directly to: Parsnips (same timing, swap thyme for rosemary), Beets (100 min, adds 10 min for denser flesh, swap miso-mirin for goat-cheese-orange glaze), Fennel bulb (75 min, shorter, swap thyme for anise or tarragon), Celery root (120 min, double the density, pair with brown-butter-caper glaze), Whole shallots (90 min, add sherry vinegar to glaze for pickle register), Baby leeks (60 min, pair with mustard vinaigrette). One master technique, seven vegetable variations. This is how Pablo builds his vegetable SV library.

● Sous Vide · The 3-Hour Hold Window

SOUS VIDE · DINNER PARTY LOGISTICS

SV'd carrots can hold in the 85°C bath for up to 3 hours past the 90-min mark without texture degradation. This gives enormous dinner-party flexibility: start the carrots at 5 PM, aim for 6:30 service. If dinner runs late (8 PM), the carrots are still perfect — no over-cook. This is one of the practical reasons SV dominates restaurant kitchens for vegetables. At 4 hours + the pectin starts to over-break; 3 hours is the safe ceiling.

● Japanese Bridge · Miso-Mirin Glaze Foundation

MODERN JAPANESE SAUCE · GLAZE APPLICATION

The miso + mirin + vinegar + shoyu + sesame oil ratio (25:15:10:5:5 g) is a universal savory-sweet-umami glaze. Extends to glazed fish (salmon, mackerel), roasted chicken thighs, pork belly, SV beef cheeks finished in a pan, roasted mushrooms. The 25 g miso : 15 g mirin is the defining ratio — more miso = savory-forward, less = sweet-forward. Memorize and scale. Same miso used in miso-salmon-sv ; same mirin + shoyu used in ponzu. One jar of white miso feeds 8+ recipes.

● No Limits: Heritage Carrot Varieties

PRODUCE · FLAVOR COMPLEXITY

Generic 'rainbow carrots' from grocery have visual variety but muted flavor variety. Heritage varieties have distinct flavor profiles: Yellowstone (cream, peppery-nutty), Cosmic Purple (anthocyanin-deep, earthy-sweet), Paris Market (round-stubby, intensely sweet from high-sugar-low-starch ratio), Atomic Red (lycopene-rich, sweet-tomato-adjacent), Amarillo (yellow, mild-sweet-classical). A 4-variety heritage mix produces a plate where every color tastes perceptibly different. Source: Glaser Organic Farms (Miami Saturday markets) or home-grown from Baker Creek. Pablo expansion: grow a pot of heritage carrots in Miami (Zone 10b, plant fall/winter). Three-month cycle to first harvest.

🔴 No Limits: Saikyo Miso (Kyoto Style)

JAPANESE PANTRY · MISO GRADE

Saikyo miso is the Kyoto-style white miso: higher koji percentage, sweeter + less salty than grocery white miso. The difference in a glaze is substantial — 25 g Saikyo produces a markedly more delicate, refined-sweet register than 25 g of standard white miso. For delicate vegetables (carrots, parsnips, fennel) where the miso should support rather than dominate, Saikyo is the summit choice. Sourced via The Japanese Pantry. Not used everywhere — for richer applications (miso-salmon, miso-pork), standard white miso is correct. Saikyo is the vegetable-glaze specialist.

PAIRING

What to Drink

🔥 Application · Universal SV-Protein Side

Pair with duck-magret-sv-kamado , miso-salmon-sv , perfect-sous-vide-steak , short-ribs-48h , or lamb-leg-sv-kamado — the default vegetable side for every SV main in the library

SV protein + SV vegetable = coherent plate construction. Both cooked at precise temperatures, both finished with a hot-pan crust, both integrated in their final plating. The miso-mirin glaze bridges directly to miso-salmon and pairs beautifully with duck + lamb's fat.

🔥 Application · Spanish-Japanese Fusion Plate

Serve alongside iberico-secreto-kamado for a Spanish-Japanese composed plate: Ibérico pork + miso-glazed carrots = pork fat + sweet-umami vegetable

The classic Spanish-Japanese fusion cross-cultural construction. Spanish pork + Japanese condiment register + SV precision. A Sunday dinner at its most ambitious.

Wine — Riesling

Tier A: Dr. Loosen Blue Slate Kabinett Riesling (Total Wine ~\$18) · Tier B: Egon Müller Scharzhofberger Kabinett

Off-dry German Riesling + miso glaze is a surprisingly perfect pairing. The wine's residual sugar lifts the miso-mirin sweetness; the acidity cuts the butter; the stone-fruit notes match the carrot's natural sweetness. The wine-pairing discovery of the vegetable library.

Sake Alternative

Junmai Ginjo served cold — Dewazakura Cherry Bouquet (True Sake or Total Wine)

For the Japanese side of the menu. Junmai Ginjo's crisp-floral profile complements the miso-mirin glaze without overwhelming the vegetable's delicacy.

CONTEXT

Menu Ideas

Saturday SV Main + Side Dinner

Half the carrots + half of any SV main (e.g., 2 duck magrets from duck-magret-sv-kamado). Serve both on the same warm platter; bag juices from duck + bag juices from carrots intermingled beneath. 4-guest service, 2 hours active + 2 hours passive.

Vegetarian Dinner Centerpiece

Scale up to 1.5 kg carrots (8-10 serving). Plate on a large warm platter. Serve with master sourdough (Batch 1 sibling) + alioli on the side + a pile of mixed herbs for guests to tear + scatter. The rare vegetarian dinner that earns its centerpiece spot.

Sunday SV Mise-en-Place

Sous vide multiple vegetables simultaneously: carrots 85°C/90min + beets 85°C/100min + parsnips 85°C/90min (all in separate bags in the same bath). Finish each in its own pan with its own glaze over dinner service. Restaurant-kitchen discipline, Sunday-afternoon execution.

Carrot-Forward Pan-Pacific Plate

Plate carrots with miso-salmon-sv over warm shari (Batch 1 recipe). Triple Japanese-technique plate: SV fish + SV vegetable + precision-rice. Drizzle ponzu yuzu variant over the fish. A composed dinner plate that proves the Japanese-pantry foundation works.

Weeknight Dinner for Two

Half-batch of carrots (300-400 g) + 2 SV chicken thighs OR tofu (85°C/90min parallel bath) + a grain like farro or shari. 90-min SV, 10 min finish. Set the circulator at 5 PM, dinner at 6:30. One pot + one pan. The weeknight-SV discipline in practice.

YOUR NOTES

Cook Log

Session Notes

Date: _____ · Serves: ____ · Rating: __ / 5

Use this space to record what you changed, what worked, and what you'd do differently next time. Your future self will thank you.