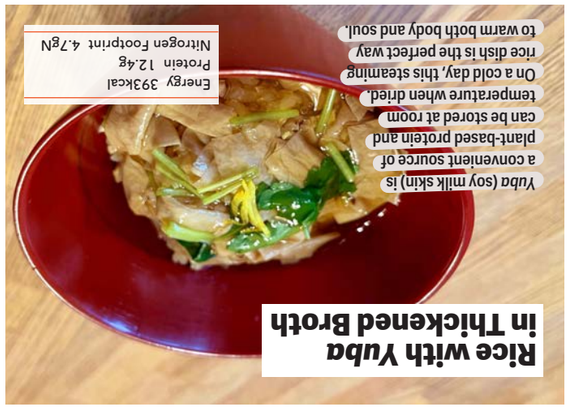
Rice with *Yuba* in Thickened Broth



Yuba (soy milk skin) is a convenient source of plant-based protein and can be stored at room temperature when dried. On a cold day, this steaming rice dish is the perfect way to warm both body and soul.

Energy 393kcal
Protein 12.4g
Nitrogen Footprint 4.7gN

Ingredients / Serves 4

Rice
- 2 cups uncooked rice
- 1 sheet *abura-age* (fried *tofu*)
- 400 mL *dashi* stock
- 20 mL *mirin*
- 1/2 tsp salt
- 15 mL soy sauce
- 15 mL *sake*
- 1 egg, beaten

Thickened Broth
- 30 g dried *yuba**
- 1 bunch leafy greens (about 50 g)
- 550 mL *dashi* stock
- 30 mL *sake*
- 30 mL *mirin*
- Salt to taste
- 20 mL soy sauce
- Potato starch slurry, as needed

▸ Preparing *abura-age*

To remove excess oil, briefly dip the *abura-age* in boiling water, or wrap it in paper towels and microwave for 2–3 minutes at 500 W. This helps remove unwanted odors, allows flavors to soak in more easily, and reduces excess fat.

* Use approximately 30 g of dried *yuba* or 100 g of fresh *yuba*.

Instructions

1. **Prepare the rice**
Rinse the rice and soak it in water for 30 minutes. Drain well.

2. **Cook the rice**
Remove excess oil from the *abura-age* and finely chop it into pieces about the size of rice grains. Mix with the rice and cook using the ingredients listed under "Rice." When the rice is done, gently stir in the beaten egg.

3. **Prepare the toppings**
Cut the dried *yuba* into 1.5 cm squares. Blanch the leafy greens and cut them into 1.5 cm lengths.

4. **Make the broth**
Combine all broth ingredients except the greens in a saucepan and bring to a boil. Add the *yuba*. Gradually stir in the potato starch slurry until the broth thickens. Add the greens.

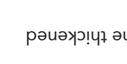
5. **Serve**
Place the rice in bowls and generously spoon the thickened broth over the top.

Kitchen Tip

Freezing Fresh Vegetables

Frozen Cucumber
Slice cucumbers thinly and arrange them on a tray. Sprinkle lightly with salt and let them sit for a while. When moisture appears, place them directly into a freezer bag without squeezing out the liquid. Freeze flat. They retain a pleasantly crisp texture and can be added directly to salads without thawing.

Frozen Mushrooms
Mix several types of mushrooms, such as *shimeji*, *maitake*, *shiitake*, and *enoki*, after separating them into bite-sized pieces. Freeze flat in a bag. Add them directly to soups while frozen. Their natural umami is released during cooking and enhances the flavor of the broth.



Miso Soup with Tempura Bits and Green Onion

Adding tempura bits (*tenkasu*) gives the soup a richer flavor. This dish is also a great way to use up any leftover or hard-to-finish ingredients that might otherwise go to waste.

Energy 68kcal
Protein 3.5g
Nitrogen Footprint 1.1gN

Ingredients / Serves 2
- 2 Tbsp *tenkasu* (tempura bits)
- Green parts of a Japanese long onion, as needed
- 400 mL *dashi* stock
- 2 Tbsp miso

Instructions

1. Slice the green onion. Bring the *dashi* stock to a boil, add the onion, and dissolve the miso paste into the soup.

2. Serve in bowls and top with the tempura bits.

Soybean and Mushroom Salad with *Shio-kombu* (Seasoned kelp)

Soybeans are rich in plant-based protein and have a relatively low environmental impact with a lower nitrogen footprint.

Energy 158kcal
Protein 13.3g
Nitrogen Footprint 3.7gN

Ingredients
- 100 g steamed or boiled soybeans
- 200 g mushrooms of your choice
- About 2 Tbsp *shio-kombu* (seasoned kelp)
- 2 tsp sesame oil
- Sesame seeds, as desired
- Small dried fish (*jako*), optional

Instructions

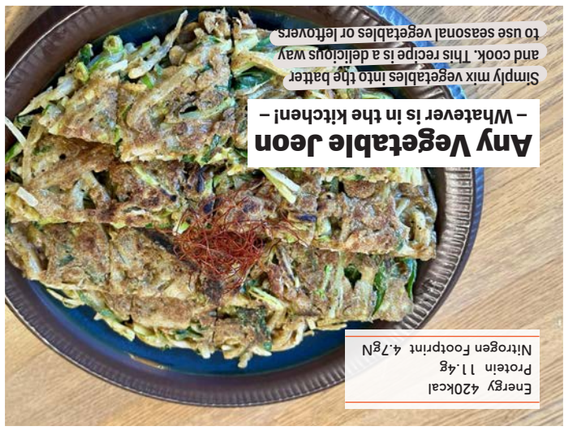
1. Chop the mushrooms into pieces about the same size as the soybeans. Place them in a microwave-safe container and heat for about 2 minutes.

2. Add all remaining ingredients and mix well.

Any Vegetable Jeon – Whatever is in the kitchen! –

Simply mix vegetables into the batter and cook. This recipe is a delicious way to use seasonal vegetables or leftovers.

Energy 420kcal
Protein 11.4g
Nitrogen Footprint 4.7gN



Ingredients / Serves 2

Batter
- 50 g all-purpose flour
- 25 g potato starch
- 1 egg
- 100 mL water
- 1/2 tsp salt
- About 100 g leftover vegetables (green onion tops, broccoli stems, radish peels, etc.)
- 3 Tbsp dried *sakura* shrimp
- 4 Tbsp sesame oil

Dipping Sauce
- 2 Tbsp vinegar
- 1 Tbsp soy sauce

Instructions

1. Mix all batter ingredients in a bowl. Add chopped vegetables and dried shrimp and stir well.

2. Heat 2 Tbsp sesame oil in a frying pan and pour in the batter. When the edges become crisp, flip it over. Add the remaining sesame oil around the edge of the pan and cook until both sides are golden and crisp.

3. Cut into pieces and serve with the dipping sauce.

Eat and Connect — Sustai-N-able

Nitrogen and the Environment from the Dining Table

What Is Nitrogen?!

Nitrogen is an essential element for life. Proteins, which contain nitrogen, are important building blocks of muscles, skin, and organs. Nitrogen is also found in DNA, which carries genetic information.
Nitrogen is widely used in fertilizers, industrial products, and fuels, supporting many aspects of modern life.
At the same time, excessive releases of nitrogen into the environment can cause nitrogen pollution, including climate change, air pollution, and water pollution. These environmental impacts can threaten both human well-being and ecosystem health.
Balancing the benefits of nitrogen with its environmental impacts is known as the **nitrogen issue**.

Check! 2-minute video on YouTube

Nitrogen Footprint

A "footprint" represents the impact that our activities have on the environment.
The nitrogen footprint measures the total amount of nitrogen released to the environment during the production, transportation, and consumption of food.
A smaller nitrogen footprint means a more environmentally friendly choice.

Even without meat, you can easily create deep, rich flavors. Ingredients such as tempura bits, seasoned kelp, and mushrooms can provide delicious *umami* while helping reduce environmental impacts.
Why not take a fresh look at your daily food choices and help protect the environment for future generations?

Do action

How to Reduce Your Nitrogen Footprint

Reduce Food Waste	Throwing away food means wasting the nitrogen used to produce it. Vegetable peels and stems can often be used in tasty recipes. Freeze extra vegetables and make good use of leftovers.
Choose More Plant-Based Foods and Seafood	Animal products generally have lower nitrogen-use efficiency, meaning more nitrogen can be lost to the environment during production. Choosing fish, vegetables, and plant-based dishes more often can help reduce your nitrogen footprint. Beans are nutritious and have a relatively low nitrogen footprint.
Eat Fresh, Eat Local!	Choose fresh, locally grown vegetables whenever possible. This simple choice helps reduce nitrogen emissions from fuel burned during transportation.

The values shown for energy, protein, and nitrogen footprint in each recipe are given per serving.

Research Institute for Humanity and Nature
Sustai-N-able Project
Towards Sustainable Nitrogen Use
Connecting Human Society and Nature
Sustai-N-able

- **Website** https://www.chikyu.ac.jp/Sustai-N-able/
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Recipe

Eat and Connect

Sustai-N-able

Mini Recipe Book on Nitrogen and Food