

An EarthShift Global Holiday Cookbook

Recipes and Reflections from our Global Family





A Message from Our Team

At EarthShift Global, our mission is to make sustainability tangible, and we're thrilled to share a special holiday project with you. **Our team, made up of passionate professionals from around the world, has come together to analyze our favorite holiday recipes through Life Cycle Assessment (LCA)**—a tool that helps us understand the environmental impacts of each dish.

We believe in the power of science and creativity to inspire change, and we know that sustainability starts with small, meaningful actions. That's why we're excited to show you how LCA can apply to something we all cherish: **food**.

To ensure the quality of our cookbook, I personally cooked and photographed every recipe, so I can vouch for their greatness!

As we share this with you, we want to take a moment to thank you for your continued support. Your partnership helps us grow and innovate, and we're proud to be part of your sustainability journey.

Happy holidays from our team to yours!

Tess Konnovitch

Data Visualization Specialist



What is LCA?

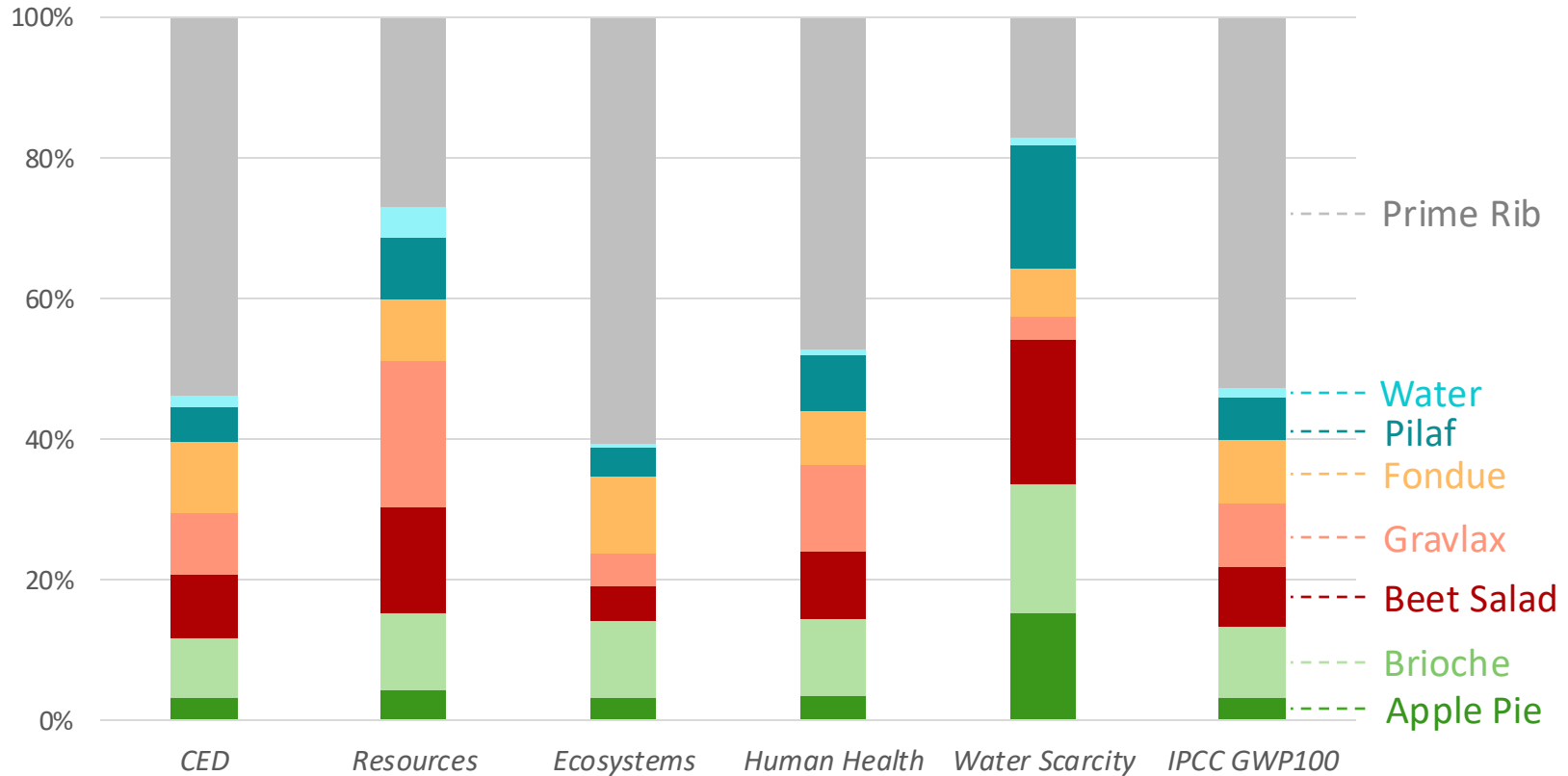
Life Cycle Assessment (LCA) is a powerful tool used to evaluate the environmental impacts of a product or process from start to finish. By assessing the entire life cycle—from raw material extraction to production, use, and disposal—LCA helps us understand the true environmental footprint of what we consume.

In this cookbook, we're applying LCA to holiday dishes, analyzing six key environmental impact categories that allow us to assess how each recipe affects the planet:

- **IPCC GWP100 (Global Warming Potential - 100 years):** Measures the impact of greenhouse gas emissions, focusing on how much a dish contributes to climate change.
- **Water Scarcity:** Looks at the water used throughout the life cycle of each dish, helping us understand its role in water scarcity.
- **Human Health:** Considers the potential effects of a dish on human health, taking into account toxic emissions and pollutants.
- **Ecosystems:** Evaluates the impact of a dish on ecosystems, including biodiversity loss and habitat destruction.
- **Resources:** Assesses the consumption of natural resources, such as minerals and fossil fuels, in the production of the dish.
- **Cumulative Energy Demand:** Looks at the total energy required from all stages of a dish's life cycle.



Dinner Impacts



Our **Prime Rib** dish stands out as the most significant contributor within our menu across all environmental categories, especially in cumulative energy demand, ecosystems, and global warming. The impact stems from a mix of agricultural practices, fossil fuel use, and the refrigeration required to keep the prime rib fresh, all of which contribute to its higher environmental footprint. Dairy stands out as the most impactful ingredient across several categories, which is why **Fondue** and **Brioche Bread** have higher impacts. The environmental impacts of the **Gravlax**, specifically the fish, is significant in nearly every category, largely due to the entire process required to bring salmon to the consumer.

Our Christmas menu was assessed using what we call a Screening LCA, built from readily available data.

Appetizers



Brioche Bread

60 minutes • Makes 8-10 servings

INGREDIENTS

- 1 cup active sourdough
- 3 cups bread flour
- 1/2 cup unbleached all-purpose flour
- 1/4 cup sugar
- 4 large eggs
- 1 1/2 teaspoons salt
- 1/2 cup milk
- 2 sticks butter room temp
- Eggwash: 1 large egg yolk & 1 tbsp water

PREPARATION

Combine all ingredients in a mixer and knead until smooth and glossy. Cover with plastic wrap, a damp towel, or tight lid and place in a warm spot for 6-8 hours.

Refrigerate for a few hours (or overnight) so that dough is nice and stiff for shaping.

Divide into 16 equal pieces and roll into balls. Add eight balls to a parchment-lined loaf pan. Repeat for the other eight in another loaf pan. Cover and allow to rise until doubled, another 6-8 hours (or overnight).

Preheat oven to 425 degrees. Create an egg wash by beating an egg with water. Brush over the loaf.

Bake 25 minutes until the brioche starts to turn golden.



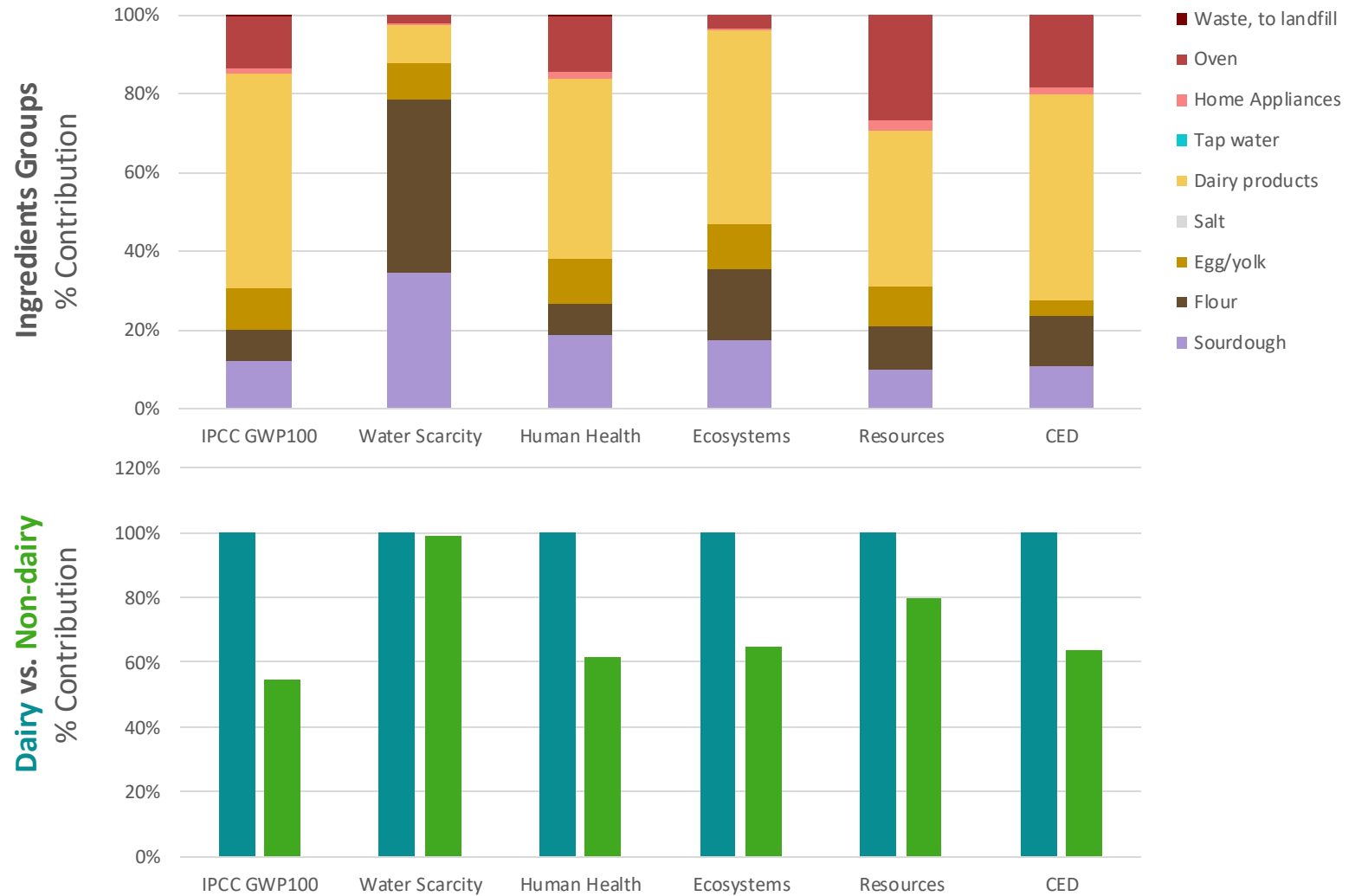
“This recipe is a great side for dinner, and the leftovers can be used for French toast in the morning!”

Tess Konnovitch, Data Visualization Specialist



Brioche Bread

60 minutes • Makes 8-10 servings



Fondue

30 minutes • Makes 6-8 servings

INGREDIENTS

- 1 garlic clove, halved
- 1/2-pound Gruyère cheese, grated
- 1/2-pound Emmentaler cheese or other Swiss cheese, grated
- 1/2-pound Comté cheese, grated
- 1 cup dry white wine
- 1 tablespoon plus 1 teaspoon cornstarch
- 1 teaspoon fresh lemon juice
- 1 1/2 tablespoons kirsch
- Ground black pepper & grated nutmeg

PREPARATION

Rub the inside of a cheese fondue pot or medium enameled cast-iron casserole with the garlic clove; discard the garlic.

Combine the grated cheese, cornstarch, and lemon juice, stirring to combine. Add to pot and cook over moderate heat, cook 30 seconds or until mixture is hot, stirring constantly. Add Gruyere and Emmentaler, stirring occasionally, until the cheeses begin to melt, about 5 minutes.

Reduce heat to low. Add the kirsch and a generous pinch each of pepper and nutmeg and cook, stirring gently, until creamy and smooth, about 3 minutes; don't overcook the fondue or it will get stringy. Serve at once.



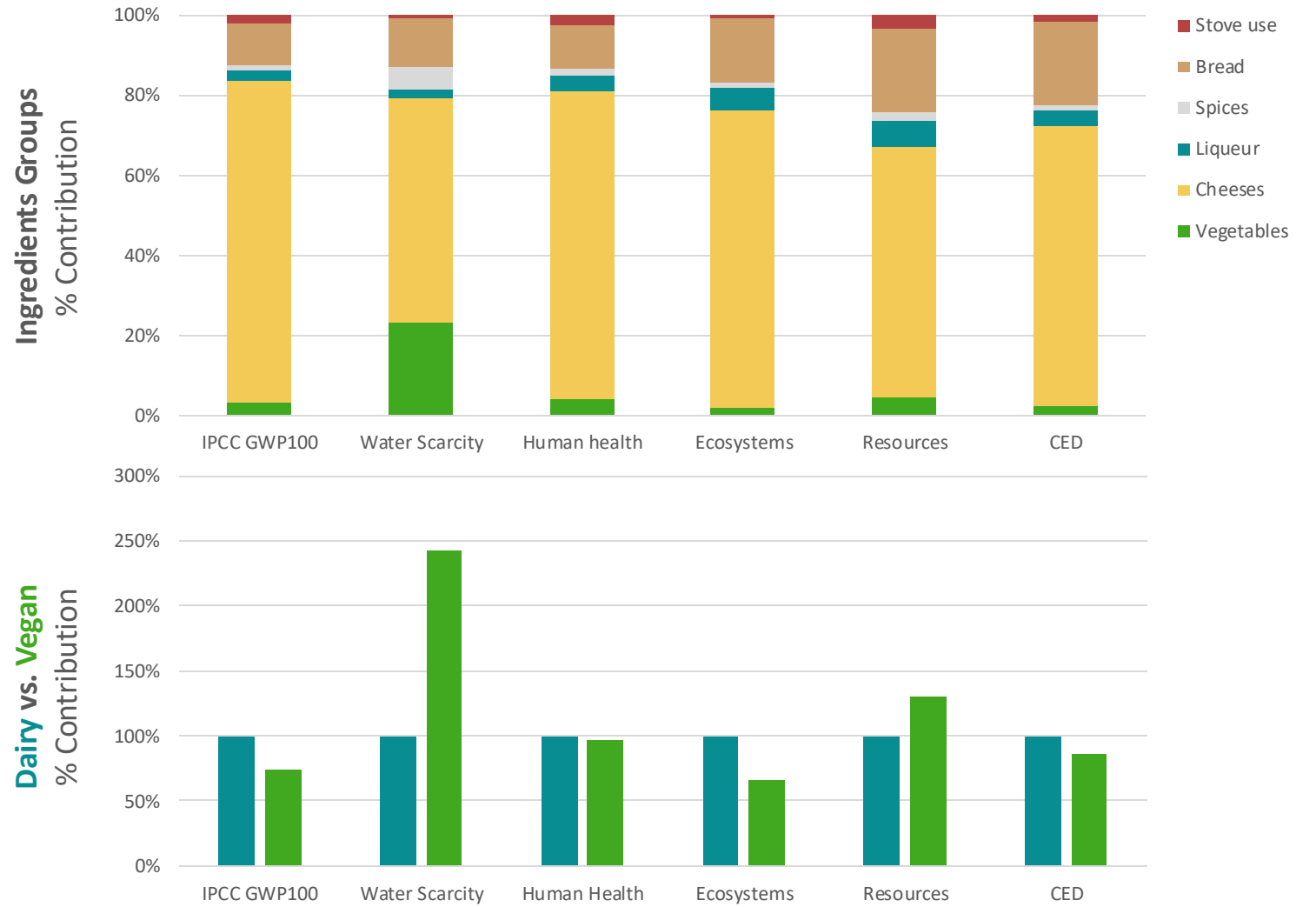
"It's become a tradition in my family to make fondue on Christmas Eve."

Nowell Stoddart, Junior Sustainability Analyst



Fondue

30 minutes • Makes 6-8 servings





Gravlax

60 minutes • Makes 8-10 servings

INGREDIENTS

- 3-4 pounds Salmon (2 equal size fillets, preferably from the head rather than tail side of fish)
- 1 bunch dill
- ¼ cup brown sugar
- 2 Tablespoons coarsely ground pepper
- Capers (~1/4 cup)

PREPARATION

Scale and debone fillets, leaving skin on. Use a glass container large enough for one fillet to fit flat in the bottom, skin side down. Rub mixture of sugar and pepper into flesh side of fish fillet. Put layer of dill on top. Rub mixture into the flesh of other fish fillet and put it on top, sandwiching the dill in between. (Skins on both fillets are on the outside.) Put weight on top and refrigerate, flipping the entire “fish” over and reweighting it every 12 hours, marinating for a total of 48 hours. The fish will “weep” out liquid which one can leave in the container with the fish.

Slice very thinly on a diagonal and serve with flatbread. Garnish with capers as you like.



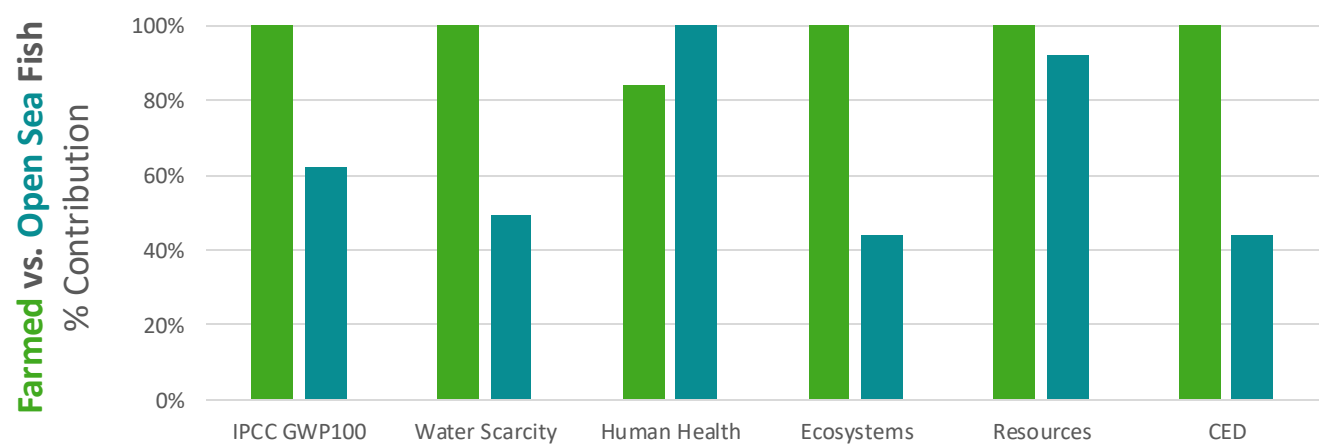
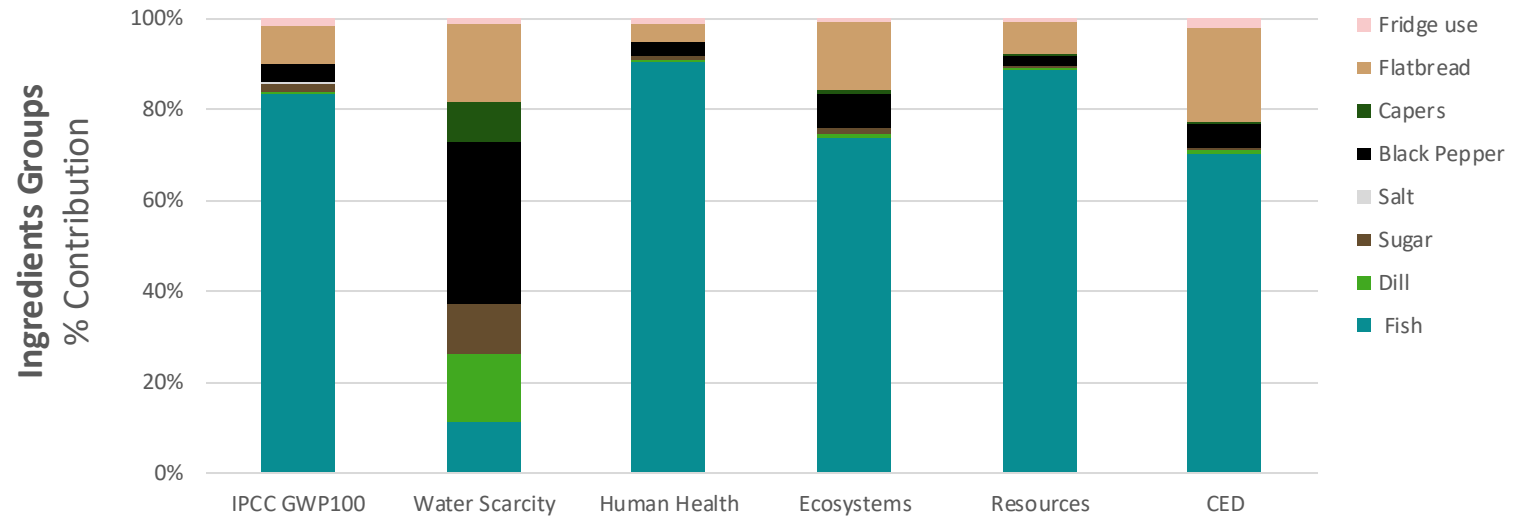
“I make this recipe every Christmas season for friends and family, to honor my Scandinavian heritage and because everyone loves it.”

Holly Harris, Marketing Coordinator



Gravlax

60 minutes • Makes 8-10 servings



Entree





Prime Rib

7 hours plus overnight dry brining • Makes 8-12 servings

INGREDIENTS

- 1 (4-rib) standing rib roast (about 10 pounds)
- Kosher salt (such as Diamond Crystal) and black pepper
- ¼ cup olive oil
- 2 tablespoons chopped fresh rosemary or thyme (or a combination)
- 2 tablespoons minced garlic (about 5 large cloves)

The Jus

- ½ cup pan drippings (from the roast)
- 2 tablespoons all-purpose flour
- 3 cups low-sodium beef broth
- 1 tablespoon Worcestershire sauce
- Kosher salt (such as Diamond Crystal)

PREPARATION

The night before cooking, season the prime rib with salt and refrigerate uncovered overnight. Let it sit at room temperature for two hours before cooking.

Preheat the oven to 250°F and prepare the roast by slicing a flap between the meat and bones, securing the bones back with kitchen twine. Rub the meat with a mixture of olive oil, rosemary, garlic, salt, and pepper. Roast bone-side down on a rack for 3½ to 4 hours, until an internal temperature of 125°F for medium-rare, then tent with foil and rest for at least 20 minutes. Increase the oven temperature to 500°F, return the roast to brown for 5–10 minutes, then transfer to a carving board.

For jus, cook pan drippings with flour, broth, and Worcestershire sauce, simmering until slightly reduced. Remove the bones, slice the roast, and serve with the jus.



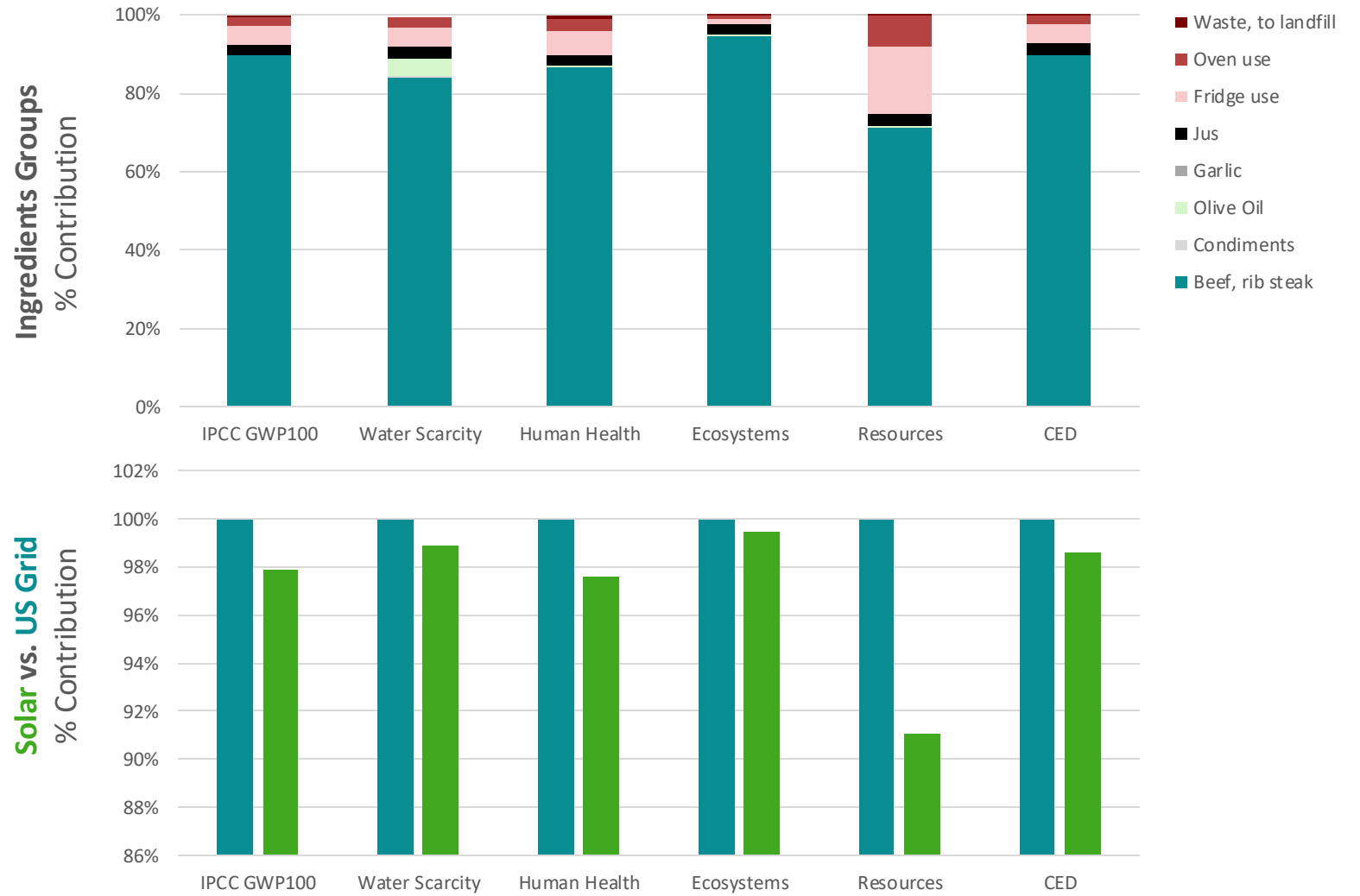
“Prime Rib is a cherished Christmas classic for many families in the US, a treat often enjoyed only once a year.”

Tom Etheridge, Principal Sustainability Advisor



Prime Rib

7 hours plus overnight dry brining • Makes 8-12 servings



Sides





Beet Salad

60 minutes • Makes 8-10 servings

INGREDIENTS

- 1 or 2 large beets (about 0.5 kg)
- 100 g of sugar
- 1 1/2 L of water
- 3/4 cup peanuts, peeled and roasted
- 1/2 -1 large jicama (about 0.4 kg), peeled and cut into small cubes
- 2-3 yellow apples (about 0.4 kg), cut into small cubes
- 1 orange, cut into half moons (an orange is about 150g)

PREPARATION

Place the beets in a pot with water and sugar. Let them simmer until the beets are soft. Maybe ½ to 1 hour is enough depending on your stove or simmering appliance.

Leave the beets to cool down at room temperature. Once they are cold, take them out of the liquid and cut them into little cubes. Then transfer them back into the liquid or place them in a large bowl.

Add the rest of the ingredients, except the peanuts and the orange. Stir gently to incorporate them all as a mixture. Leave them to rest for a couple of hours or even a whole night if possible. Be careful to keep the salad in the fridge because sugary beets spoil easily.

Serve the salad in little individual bowls. For each individual portion add a little handful of peanuts and a slice of orange.



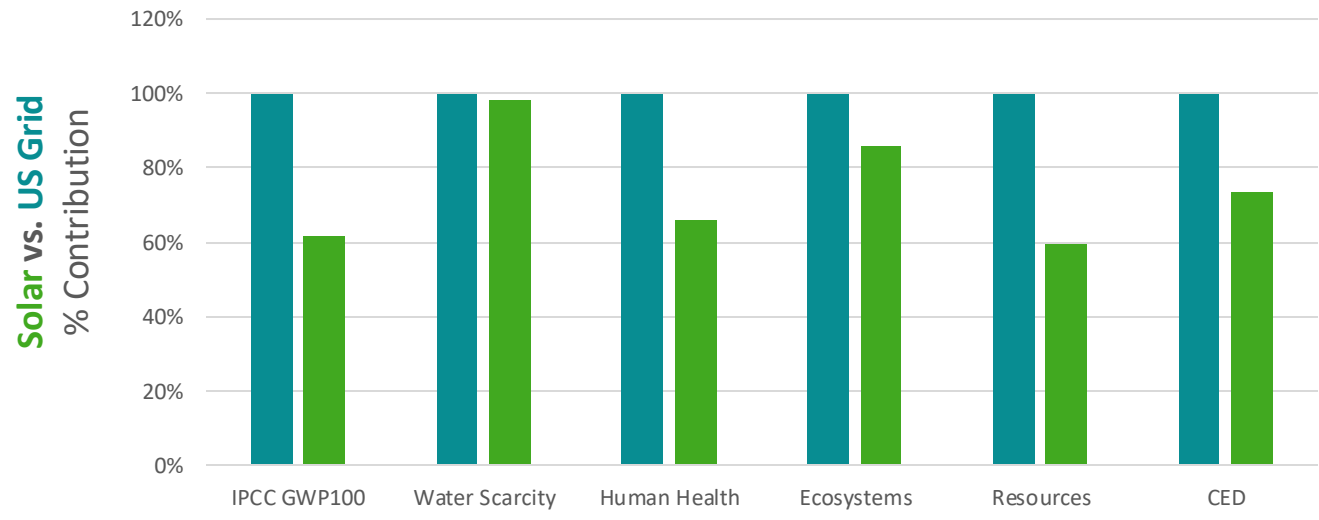
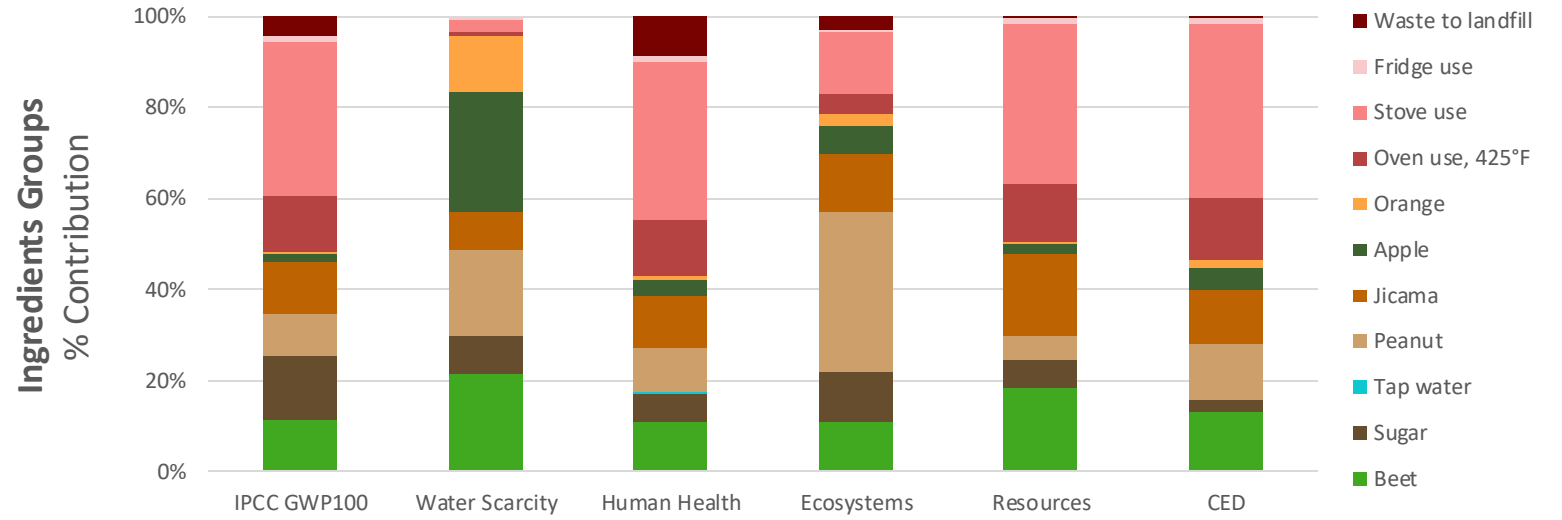
“We call it Christmas Eve salad. My mom learned it from my grandma, and she from her mom. My other grandma also prepared it with some variations: adding different citrus varieties, bananas, other nuts, etc. We eat it as dessert and during December more than at any other time of year.”

Mariana Ortega Ramirez, Senior Sustainability Analyst



Beet Salad

60 minutes • Makes 8-10 servings





Pilaf

60 minutes • Makes 6+ servings

INGREDIENTS

- 1 cup brown rice
- 1 cup stock (lamb is nice, chicken or beef will also be good, or use vegetable stock for a vegan option)
- 1 cup water
- 1 tablespoon cumin powder
- 2 tablespoons olive oil
- 2 stalks celery, chopped
- ½ medium onion, chopped
- ¼ cup chopped figs
- ¼ cup pine nuts
- ¾ teaspoon cinnamon
- ¾ teaspoon ground cardamom
- 3-4 gratings of nutmeg
- 2-3 gratings of ground pepper

“This can be made with any dried fruit. I always remember the lyric “We want some figgy pudding” at this time of year, so I like to use figs.”

Lise Laurin, CEO and Founder

PREPARATION

Combine stock, water and cumin in a saucepan. Bring to a boil (on high, about 5 minutes) and stir in rice. Cover and simmer on low for 30 minutes. Turn off heat and allow to sit at least 5 minutes.

In a frying pan heat the olive oil over medium heat. Sauté the celery and onions until translucent. Stir in figs, nuts and remaining spices. Cook an additional minute (about 7 minutes total). Remove from heat.

Combine rice and fig mixture in a covered casserole. Heat at 325° F for 20 minutes.

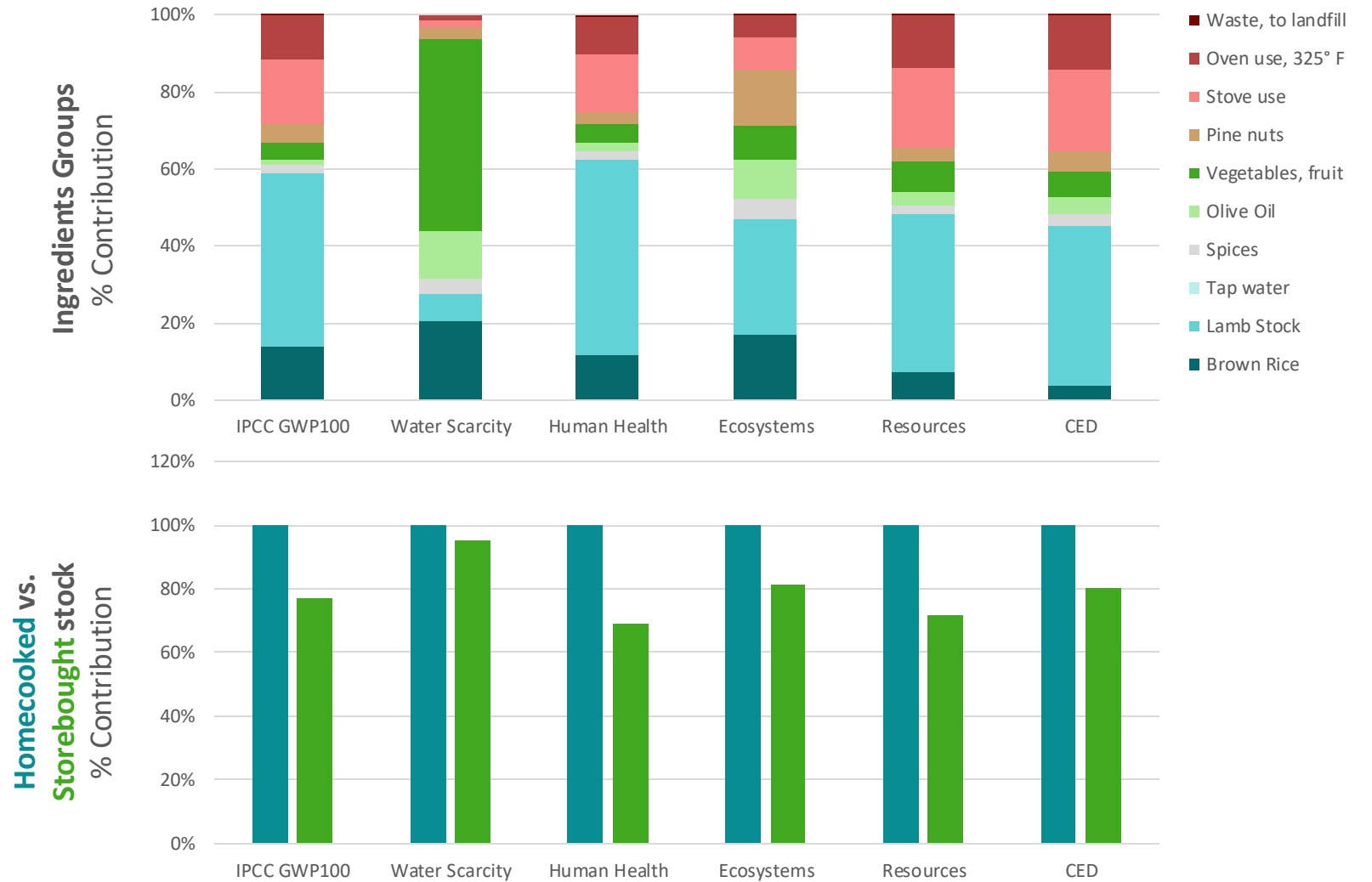
Or combine rice and date mixture in a refrigerator or freezer container. Refrigerate up to 3 days, freeze up to 2 months. Heat at 350° F for 30 minutes if refrigerated, 45 minutes if frozen.





Pilaf

60 minutes • Makes 6+ servings



Nutty Brown and Wild Rice

60 minutes • Makes 2-4 servings

INGREDIENTS

- 2 tablespoons vegetable oil
- 1 cup wild rice
- ½ cup brown rice
- ½ cup chopped onion
- ¼ cup chopped celery
- 1 minced garlic clove
- 2 cups mushroom stock
- 1 chopped apple
- ½ cup pecans or walnuts (toasted)
- 2 tablespoons minced fresh herbs
- ½ teaspoon dried thyme

PREPARATION

Heat the oil and sauté the rice, onion, celery and garlic until the rice turns translucent. Add the stock and simmer for 35 minutes. Add the apple and nuts and simmer an additional 10 to 15 minutes. Stir in the herbs and serve.

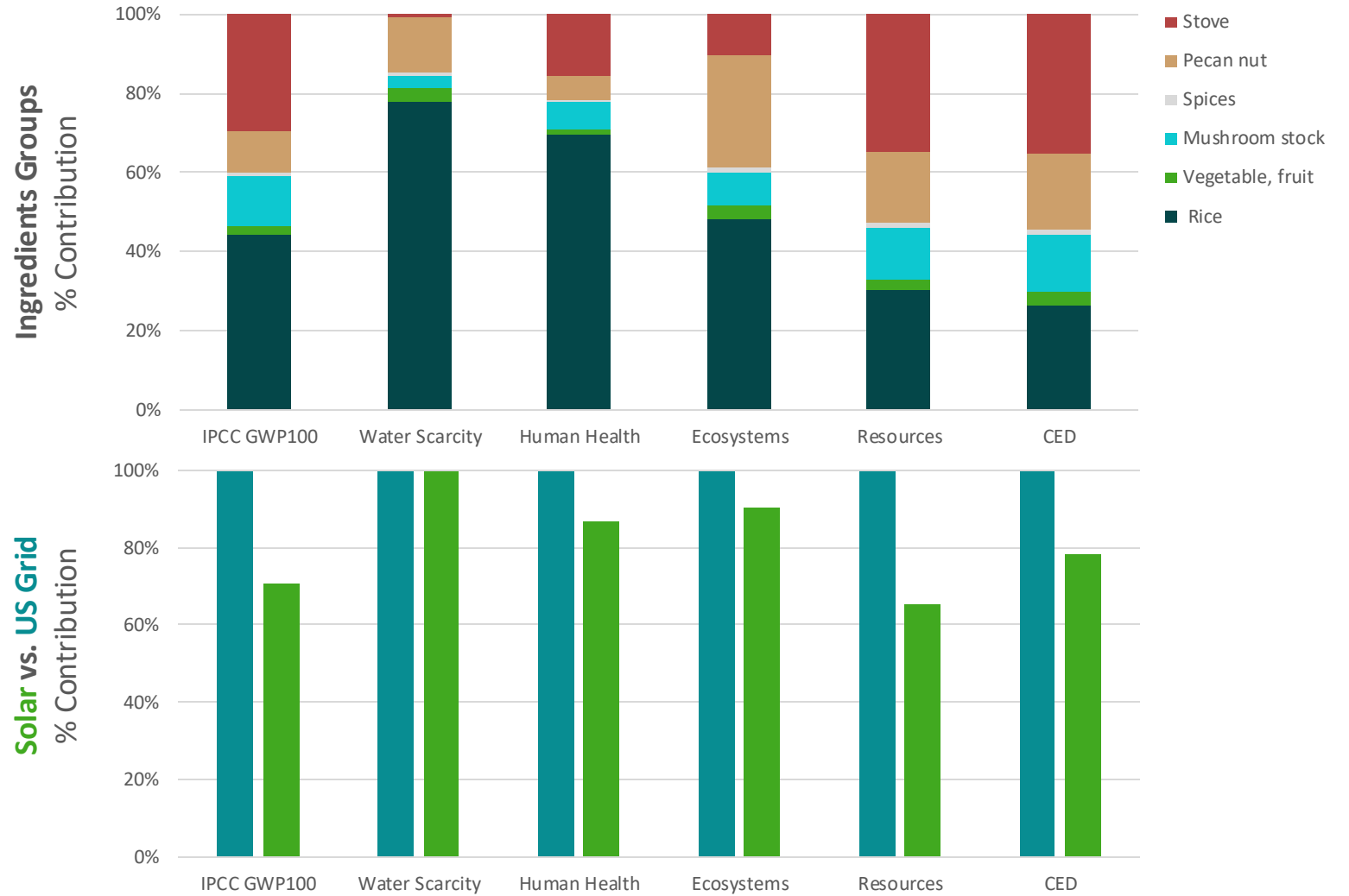


"I make this recipe when I have vegan or vegetarian guests. It has a bit of protein and a nice full flavor."

Lise Laurin, CEO and Founder

Nutty Brown and Wild Rice

60 minutes • Makes 2-4 servings



Dessert





Apple Pie

60 minutes • Makes 8-10 servings

INGREDIENTS

- 8 medium MacIntosh apples (sliced thin)
- 1/4 cup brown sugar
- 3/4 teaspoon cinnamon
- 1/4 teaspoon salt
- 1/8 teaspoon nutmeg
- 2 tablespoons all-purpose flour
- 1 tablespoon butter
- 2 premade pie crusts (14.2 oz)

PREPARATION

Preheat oven to 425F. Press 1 pie crust into a glass or ceramic pie plate. Mix apples, brown sugar, cinnamon, salt, nutmeg, and flour in a bowl. Pour into pie crust, add the second pie crust on top, fold and press edges together. Melt the butter in a separate dish in the microwave (10-15 seconds) brush melted butter on the crust. Cut slits in the top crust and bake for 40 minutes.



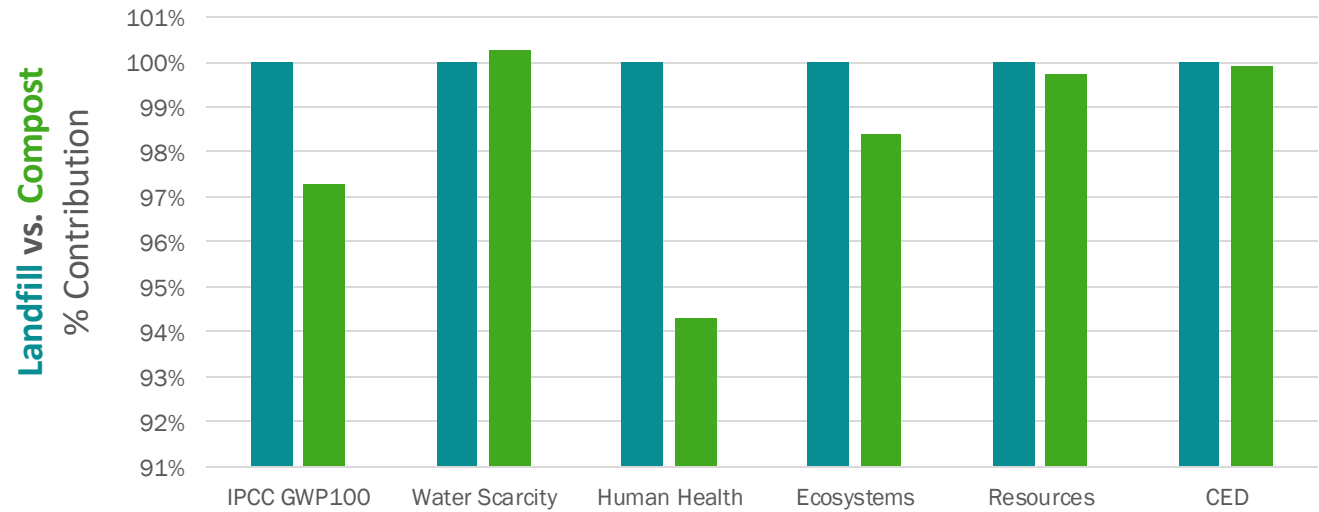
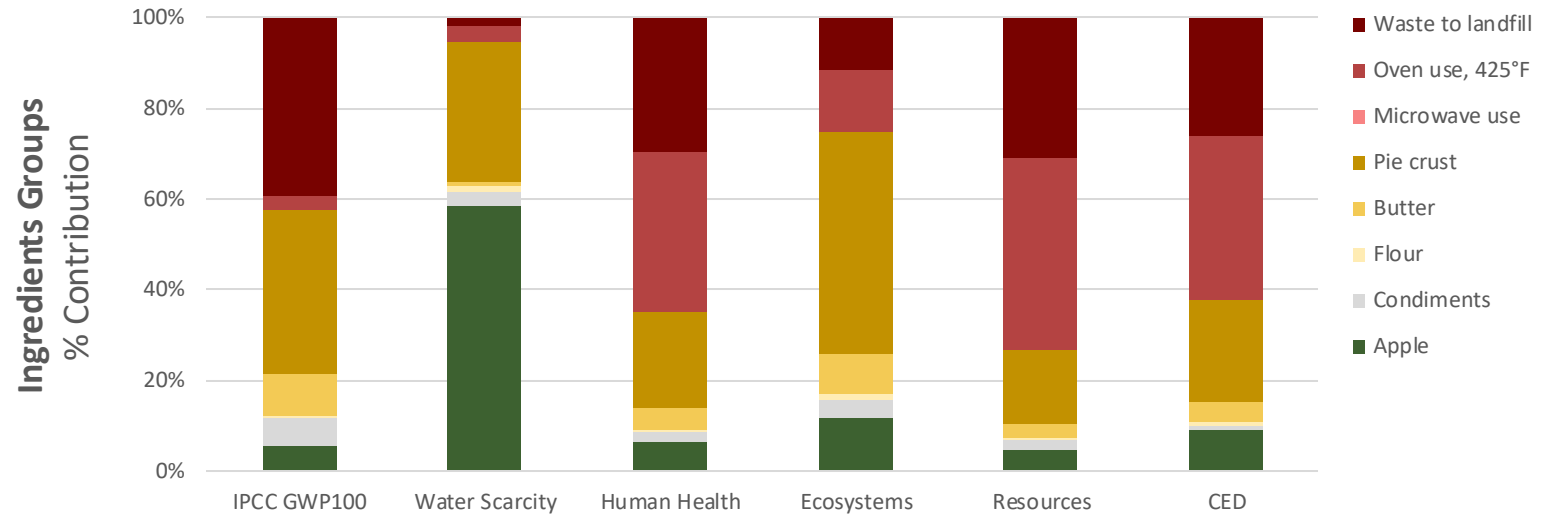
“Here is my grandma’s apple pie recipe that I used to make every Christmas for my dad (it was his favorite).”

Laura, Project Coordinator



Apple Pie

60 minutes • Makes 8-10 servings



From Our Team at EarthShift Global to Yours,
Happy Holidays!

