

Nutrition Hotline

Vegan Diets and Risk of Hip Fracture

Reed Mangels, PhD, RD

QUESTION: I've seen headlines about vegan diets and hip fracture risk. Should I be concerned?

R.S., via email

ANSWER: A number of recent large studies from the United States, Canada, and the United Kingdom have examined fracture risk in vegans:

- UK Women's Cohort Study—vegan women had a higher risk of hip fractures than did meat eaters.¹
- UK EPIC-Oxford Study—vegans had more than twice the risk of hip fractures compared to meat eaters.²
- US and Canada Adventist Health Study-2—vegan women, but not vegan men, had a markedly higher risk of hip fractures than did nonvegetarians.³
- UK Biobank Study vegetarian, including vegan, men and women had a higher risk of hip fractures than did meat eaters.⁴

There are several possible explanations for these results. The lower average body mass index (BMI) in vegans may partially explain their higher risk

of hip fracture.^{1,4} A lower BMI has been associated with less dense bones because bones are strengthened by weight-bearing exercise. If a person weighs more, their bones bear more weight. Additionally, having a bit more body fat may cushion the hips when a fall occurs.

One study found that higher intakes of calcium and vitamin D, from a combination of food and supplements, were associated with a lower risk of hip fractures.³ Another study found that differences in dietary protein and calcium intake did not completely explain group differences in hip fracture risk.² This study did not measure vitamin D intake. The effect of different intakes of other nutrients, such as vitamin B12 that can affect bone health, was not reported in these studies. In many cases, we also don't know about the quality of the subjects' diets or whether they got adequate calcium and vitamin D when they were adolescents, a key time for bone growth.

A helpful perspective is offered by the researchers from the UK Biobank study who point out that, while the vegetarians (this group includes vegans) had a 50% higher risk



of hip fractures than did meat eaters, this represents only about 3.2 more cases of hip fractures per 1,000 people over 10 years. This modestly higher absolute difference in risk should be weighed against vegetarians' lower risk of cancer and cardiovascular disease.⁴

The results of these studies are a reminder that vegans should follow general recommendations to promote healthy bones, including getting adequate calcium, vitamin D, protein, and vitamin B12; getting regular weight-bearing exercise; and striving to have BMIs within the "healthy weight" range as opposed to the "underweight" range.

REFERENCES:

- ¹ BMC Med. 2022;20:275.
- ² BMC Med. 2020;18:353.
- ³ Am J Clin Nutr. 2021;114: 488-495.
- ⁴ BMC Med. 2023;21:278.

Vegan Journal

(formerly Vegetarian Journal)

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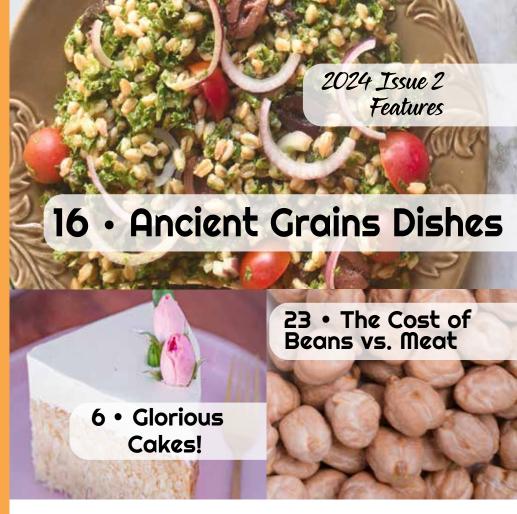
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Note from the VRG Research Director

Carbon Footprints vs. Water Footprints



If you're vegan for the environment, should water footprints or carbon footprints of food matter more to you? Almost all large studies and meta-analyses compiling results of several studies conclude that vegan diets have the smallest overall footprint of all diets. The reason is that it takes much more water and fossil fuels to produce meat and dairy compared to plants. Additionally, the methane and nitrous oxide generated from animal agriculture supercharge climate breakdown.

However, there are a few vegan foods—such as almonds, coffee, and olive oil—that have high water footprints. And rice's carbon footprint is much higher than those of other grains (and almost as high as that of chicken eggs) because of the methane produced from growing rice. Although in these cases, the water usage and carbon emissions are small compared to those produced by meat and dairy production, they are still significantly more than those of other plant foods.

So, what's a vegan to do? If you're trying to live *more* sustainably, it's important to consider *both* the water and the carbon footprints of food. In cases where a particular vegan food has an extremely high water footprint or carbon footprint,

you may choose other options whose footprint is not as high. Fortunately, as a vegan, you have plenty of other options.

However, even if you decide to stop eating certain vegan foods because of their heavy water or carbon footprints, you don't need to count up the footprints of every food on your plate at every meal. Almost all studies show that vegans' personal food footprints are already the lowest of all. Vegetarians have smaller food footprints than meat eaters do, although not as low as vegans have in most cases.

Whatever you choose to do in the name of living lightly on the Earth, remember that there's more to sustainable food than just water and carbon footprints. It would be helpful to everyone striving to adopt a sustainable diet if there were tables of information listing the environmental footprints of foods. This metric, in theory, would contain not only water usage and carbon emissions associated with foods. It would also include, for example, the effects of a food's production in relation to: land use, deforestation, eutrophication potential, acidification potential, fossil resource use, aquifer depletion, air pollution, and biodiversity.

The VRG has already provided detailed information on the water and carbon footprints of many foods in several of our earlier publications, such as our water pollution brochure, vegan burrito infographic, and carbon footprints of vegan pizza.

Remember that the notion of a personal carbon footprint was created by the fossil fuel industry as a marketing tactic to shift the focus away from their products as causing climate breakdown and placing responsibility on individual people. However, although you didn't cause the problem as an individual through your food choices, this doesn't mean you should disregard the effect of your food on the environment and eat whatever you want. It's always best to limit your consumption of unsustainable foods if possible—for health, environmental, and ethical reasons. One person's dietary choice is not going to solve the planetary environmental crisis. However, one person's food preferences can have effects, which, when multiplied by millions of people, could lead to system change. To see my complete editorial, see vrg.org/blog/2023/11/24/carbon-footprints-vs-water-footprints-of-vegan-foods-which-is-more-important

Jeanne Yacoubou, MS Research Director of The Vegetarian Resource Group

VRG's MEMORIAL and HONORARY GIFT PROGRAM

How often have you wanted to make a gift in honor of a loved one or friend but weren't sure which charities are veganfriendly, pro-environmental, or pro-animal rights? Please remember The Vegetarian Resource Group. You can make a gift in memory of a loved one or as a living tribute to honor someone you care about on a special occasion, such as a wedding or birth. We'll send an acknowledgement to you and to the recipient(s) you choose. Your gift will support educational outreach programs and help promote veganism.

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Make checks payable to The Vegetarian Resource Group and mail to P.O. Box 1463, Baltimore, MD 21203, or donate at vrg.org/donate

We greatly appreciate Melinda Rosin-Seltzer's donation as well as kind words, "Thank you for your work and passion spreading the good word!"

Special thanks to volunteer Jill Adler for doing a tremendous amount of work updating VRG's online restaurant guide vrg.org/restaurant/index.php

Eliminate All Subsidies to the Meat, Dairy, and Egg Industries

I was happy to read in Vegan Journal (Volume 42, Issue 4) in Reed Mangels' article 'Meat-Like Veggie Burgers' the following: As consumers become more aware of the environmental and health costs of animal products, there may be a move towards reducing or eliminating government subsidies, and that could make veggie and animal products have similar prices. As a libertarian vegetarian, I have been saying for decades that, if not for government subsidies, meat, dairy, and eggs would be so expensive that most consumers would become vegetarian from economic necessity. Proselytizing would no longer be necessary. I encourage VRG to lobby the federal government to eliminate all subsidies to the meat, dairy, and egg industries.

Nick K., via email

Serving Vegan Food in Nursing Facilities

I wonder if management at a memory care/skilled nursing facility would provide information on how those with dietary preferences due to veganism, religious beliefs, etc., could make those known in advance of becoming a resident? How is it ensured that requests are honored? *Gretchen O., via email*

VRG's Food Service Advisor Chef Nancy Berkoff, EdD, RD replied: There is little uniformity in memory care/skilled nursing facilities' dietary policies. Facilities need to follow federal, state, and local laws and mandates, but the provision of services or enforcement vary.

Depending on the facility's policy, a doctor's order for a specific type of diet (vegan, kosher, gluten-free, etc.) could help to establish the "official" need. Prior to admission, have a detailed conversation with the person in charge of fulfilling dietary requests. Request a copy of the vegan foods offered on a regular basis to ensure the selection is nutritious, varied, and meets the patient's needs.

Beyond the dietary/food service staff or nursing staff, a social worker, case manager, or patient services coordinator could be another good contact. There may be an area ombudsman or patient advocate's office, who might be enlisted if reasonable dietary requests are not being honored.

Editor's Note: If readers have experience with this situation as a health professional or family of a resident, please share with us.

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Baltimore, MD 21203. You may also e-mail letters to vrg@vrg.org
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Coming in the next issue...

ECONOMICAL MEALS

Plus: Mediterranean Mainstays, Magnesium Sources, The Carbon Footprint of Meat Pizza vs. Vegan Pizza, and More!

Glorious Cakes

by Sara Kidd

Cakes, crafted with flour, milk, eggs, sugar, butter, and raising agents. Fast forward to the 1930s, during the hardships of the Great Depression, when the unique 'wacky cake' emerged. Made with cocoa, sugar, water, oil, raising agents, and vanilla, this unwittingly marked the dawn of vegan cakes. Eggs and dairy were left behind, resulting in a surprisingly delectable creation.

Now, embrace the joy of baking at home with these beloved vegan cake recipes. With readily available ingredients and straightforward methods, these treats are guaranteed to tantalize your taste buds.

Gluten-Free Vanilla Cake

(Makes one 8-inch cake serving 12)

1½ cups white rice flour ¾ cup blanched almond flour ½ cup potato starch

1 Tablespoon baking powder

1 teaspoon baking soda

½ teaspoon salt

1/4 teaspoon xanthan gum (found in the baking or gluten-free aisle)

3/4 cup organic sugar

11/2 cups plain soymilk

1 Tablespoon white vinegar

½ cup vegetable oil

1 Tablespoon vanilla extract

Preheat oven to 320 degrees. Oil and line an 8-inch cake pan with baking paper.

In a large mixing bowl, sift the rice flour, almond flour, potato starch, baking powder, baking soda, salt, and xanthan gum. Whisk to combine. Add the sugar and stir until fully incorporated. Make a well in the middle of your dry ingredients.

Place the soymilk and vinegar in a large bowl and stir to thicken. Add oil and vanilla and stir to combine. Slowly pour the wet ingredients into the bowl of dry ingredients and gently whisk to combine.

Pour the batter into your cake pan and tap it on a hard surface with force to release any large air bubbles.

Bake on the middle rack of your oven for about 50 minutes, or until a skewer inserted into the center comes out almost clean of cake batter and the top springs back when lightly pressed.

Let cool in the pan for 10 minutes before flipping onto a cake rack to finish cooling completely. Frost and decorate with your chosen frosting and decorations.

Total calories per serving: 283 Carbohydrates: 38 grams Sodium: 308 milligrams Fat: 13 grams
Protein: 4 grams
Fiber: 2 grams



Persian Love Cake

(Makes one 8-inch cake serving 12)

Cake

1/3 cup plus 2 Tablespoons melted vegan butter

3/4 cup organic sugar

3 Tablespoons rosewater

1 teaspoon vanilla bean paste or vanilla extract

1 teaspoon lemon extract

Zest of one lemon (about 1 Tablespoon)

1/3 cup plain soymilk

1 Tablespoon white vinegar

11/3 cups all-purpose flour

1½ teaspoons baking powder

½ teaspoon baking soda

½ teaspoon salt

½ teaspoon xanthan gum

1 Tablespoon ground cardamom

½ cup blanched almond flour

Preheat your oven to 325 degrees. Oil and line an 8-inch cake pan with parchment paper.

In a medium bowl, combine the melted butter and stir in sugar. Add the rosewater, vanilla, lemon extract, and zest. Stir until completely combined.

In a separate bowl, whisk the soymilk and vinegar until thick and slightly curdled before adding the mixture to the melted butter. Stir to combine.

Sift the all-purpose flour, baking powder, baking soda, salt, xanthan gum, and cardamom together into a large mixing bowl. Stir in the almond flour.

Make a well in the center of the dry ingredients and pour in the wet mixture. Stir until just combined. Next, pour the batter into the cake pan and bake for 35-37 minutes, or until golden brown and the top springs back when gently pressed.

Let cool in the pan for at least 15 minutes. Turn out onto a wire rack to finish cooling completely.

Glaze

1 cup organic powdered sugar

2 Tablespoons fresh lemon juice

1 Tablespoon rosewater

Chopped pistachios and (optional) dried rose petals

Mix the powdered sugar, lemon juice, and rosewater until completely combined. Pour over the cooled cake and garnish with pistachios and dried rose petals.

Total calories per serving: 217 Carbohydrates: 33 grams Sodium: 241 milligrams

Fat: 7 grams Protein: 3 grams Fiber: 1 gram



Roasted Carrot Cardamom Cake

(Makes one 9-inch cake serving 12)

Cake

3 large whole carrots pre-roasted in the oven 12/3 cups all-purpose flour 12/3 cups blanched almond flour 12/2 cup vegan butter or margarine, melted 3/4 cup organic light brown sugar, firmly packed 1/4 cup organic sugar 2 teaspoons baking powder 1 teaspoon salt 1/2 cup toasted walnuts, coarsely chopped 1 cup plain soymilk 1 teaspoon vanilla bean paste 1/2 teaspoon ground cardamom 1 teaspoon lemon extract

Preheat oven to 320 degrees. Oil one 9-inch round cake pan, line it with baking paper, and then oil the paper. Dust very lightly with flour to prevent the cake from sticking.

Add your roasted carrots to a food processor and pulse until the carrots are broken up into small pieces but not completely puréed. Set aside.

In the bowl of a mixer with a whisk attachment, add the all-purpose flour and almond flour. Pour in the melted butter and mix on a low speed until it takes on a sandy consistency.

In a large bowl, add both the brown and white sugars, baking powder, and salt. Whisk together to break up the brown sugar. Pour into your mixing bowl, add the walnuts, and mix together for about 30 seconds or until the sugar has blended into the flour.

Add the soymilk, roasted carrot mixture, vanilla, cardamom, and lemon extract to a large bowl and stir to combine. Pour into your mixing bowl and beat on the lowest speed until just combined, about 20-30 seconds. The mixture will be very lumpy and runny.

Transfer the batter to your prepared cake pan. Bake on the middle rack of your oven for about 50 minutes, or until the top is firm to touch and a skewer inserted into the middle of the cake comes out with only a few crumbs clinging to the sides.

Let cool in the cake pan for 15 minutes before flipping onto a cake rack. Allow to completely cool before frosting.

Semi-Sweet Lemon Buttercream

1/4 cup hi-ratio vegetable shortening (available online, Walmart, and other stores)

¼ cup vegan butter

1/4 cup soy or other plant-based whipping cream

11/4 cups organic powdered sugar

1/2 teaspoon vanilla bean paste or vanilla extract

1/2 teaspoon lemon extract

Pinch of salt



Warm the shortening and butter in the microwave for 15-30 seconds, until slightly soft to touch but not melted. Transfer to the bowl of a mixer and use the paddle attachment to beat on a low speed until completely smooth and lump free, about 5-10 minutes.

While beating on a low speed, add 1 Tablespoon soy cream at a time until incorporated and smooth.

Sieve powdered sugar and add a cup at a time while beating on low speed. Add the vanilla, lemon extract, and salt and beat until combined. Set aside until ready to frost your cake.

How to Assemble Your Cake

Using a sharp serrated knife, cut the dome off the top of your cake so it's completely level.

Place your cake onto your cake board or cake stand with the smooth bottom side facing up.

Cover the top of your cake in buttercream and smooth it out using a large offset spatula or palette knife. To create a whirl effect on top, place a small palette knife onto the center of your buttercream, just touching the buttercream, at a slightly tilted angle and spin your cake around on a cake turntable, while slowly moving your knife to the outside of the cake. The swirl pattern will appear as the cake spins.

Total calories per serving: 415 Carbohydrates: 43 grams Sodium: 303 milligrams Fat: 23 grams Protein: 6 grams Fiber: 3 grams

Spicy Chai Cake with Cinnamon Buttercream

(Makes one double layer 6-inch cake serving 12)

Spice Blend

- 1 Tablespoon ground cinnamon, plus extra for dusting
- 1 Tablespoon ground ginger
- 2 teaspoons ground cardamom
- 1 teaspoon ground cloves
- 3/4 teaspoon finely ground black pepper

In a large frying pan, add all the ingredients for the spice blend and gently dry toast over medium-low heat while occasionally stirring with a wooden spoon for about 2-3 minutes. You will notice that your spices start to become more fragrant. Remove from heat.

Cake

11/4 cups white rice flour

1 cup blanched almond flour

3/4 cup potato starch

21/3 cups organic powdered sugar

21/2 teaspoons baking powder

½ teaspoon baking soda

½ teaspoon salt

3/4 teaspoon xanthan gum

3/4 cup unsweetened full-fat canned coconut milk

34 cup plus 1 Tablespoon brewed black tea, cooled

34 cup vegetable oil

1 Tablespoon vanilla bean paste or vanilla extract

1 Tablespoon organic lemon zest

Preheat oven to 350 degrees. Oil and line two 6-inch round cake pans with vegetable oil and baking paper and then oil the paper.

In a large mixing bowl, sift both flours, starch, sugar, baking powder, baking soda, salt, and xanthan gum together. Briefly whisk to combine.

In a large bowl, mix together the coconut milk, brewed tea, oil, vanilla, and lemon zest. Stir to combine.

Pour the liquid mixture into the bowl of dry ingredients and gently fold together with a spatula, until just combined.

Divide the batter between both cake pans, making sure they have the same amount. I weigh my batter in the tins to make sure they are the same weight. Tap the pans firmly on a hard surface to release any air bubbles.





Place pans onto the middle rack of your oven and bake for 50-53 minutes, or until a skewer inserted into the middle comes out almost clean, with just a few crumbs clinging to the sides.

Allow to sit in the cake pans for 5 minutes before running a thin knife around the inside of the pan and turning out onto a cake rack. Let cool completely.

Cinnamon Buttercream

3/4 cup hi-ratio vegetable shortening (available online, Walmart, and other stores)

1 cup vegan butter, at room temperature
3¾ cups organic powdered sugar
1 Tablespoon cinnamon, plus extra for dusting
1 teaspoon vanilla bean paste or vanilla extract
Pinch of salt

Warm the shortening and butter in the microwave until soft but not melted. Place in the stand mixer and use the paddle attachment to beat on low speed for 5-10 minutes until smooth and lump free.

Sift powdered sugar and cinnamon, and add a cup at a time to the mixture while beating on low speed. Add vanilla and salt and beat until combined.

Let rest in the fridge for 30-60 minutes before using, or until firm enough to pipe on your cake.

1/3 cup thick coconut yogurt, plain or unsweetened 1/2 cup coconut flakes, toasted (optional)

How to Assemble Your Cake

Using a sharp serrated knife, cut the domed tops off both cakes to create perfectly flat rounds. Make sure both cakes are exactly the same height.

Place the bottom layer onto your cake board or stand. Using a piping bag with a round nozzle, pipe buttercream around the edge of the cake to create a thick 1-inch border. Fill the center with coconut yogurt, reaching only ¾ of the way to the top of the buttercream. Optionally, sprinkle toasted coconut flakes over your yogurt. Place the second cake layer on top, with the flat bottom facing up.

Using your piping bag, completely cover your cake in buttercream to create a crumb coat and smooth out the sides with an offset spatula or cake scraper. Coat with buttercream again for your final coat and smooth. Finally, dust the top of your cake with cinnamon and serve.

Total calories per serving: 702 Carbohydrates: 72 grams Sodium: 296 milligrams Fat: 43 grams Protein: 3 grams Fiber: 2 grams

Plum Butter Cake

(Makes one 8-inch cake serving 12)

Cake

2 Tablespoons ground flaxseeds

5 Tablespoons boiling water

3/4 cup whole wheat flour

3/4 cup all-purpose flour

½ cup vegetable oil

2 teaspoons baking powder

1 teaspoon salt

½ cup plus 5 teaspoons full-fat coconut cream

¼ cup organic sugar

½ cup packed organic light brown sugar

1 teaspoon vanilla bean paste or vanilla extract

1 Tablespoon fresh ginger, finely grated

Preheat oven to 320 degrees. Oil and line an 8-inch round cake pan with parchment, then oil the paper.

In a small mixing bowl, combine the ground flaxseeds and boiling water. Stir until there are no lumps. Leave to thicken for 3 minutes.

In a bowl of a mixer with a whisk attachment, add the whole wheat and all-purpose flour along with the vegetable oil. Mix together on the lowest speed until just combined. Add baking powder and salt, and mix for an additional 10 seconds.

Add the coconut cream, both sugars, vanilla, and ginger to the flasseed mixture and whisk to combine, until there are no lumps.

Turn your mixer onto the lowest speed and slowly pour in your wet ingredients. Mix for about 1 minute or until completely incorporated. Pause, scrape down the sides of the bowl, and mix for another 10 seconds. The resulting cake batter should be quite thick.

Pour the batter into your prepared cake pan and bake in the middle rack of your oven for about 45 minutes, or until a skewer inserted into the center comes out clean. The top should also be quite firm to touch. Remove from the oven and allow to cool in the pan for 5 minutes before tipping out onto a cake rack. Allow to cool completely and move onto making your plum topping.

Topping

4 large semi-ripe plums

1/4 cup vegan butter, cubed

½ cup organic sugar

1 cup water

Wash, dry, and slice plums into large even horizontal pieces. Discard the pits.

In a small saucepan, melt your butter over medium heat, cooking until it just begins to bubble. Add the sliced plums and gently sauté for 30 seconds. You only want to coat the plums in butter, not stew them. Remove from heat and allow to cool.

Arrange plums in a circular pattern around your cake until the top is completely covered. Pour any remaining butter over the cake.

In a small saucepan, add sugar and water over medium heat. Stir for about 2 minutes until the sugar dissolves. Simmer gently for an additional 3 minutes, until it becomes a slightly thicker syrup. Remove from heat. Using a pastry brush, gently brush syrup over each plum to add shine. Now your cake is ready

Total calories per serving: 295 Carbohydrates: 37 grams Sodium: 284 milligrams

Fat: 15 grams Protein: 2 grams Fiber: 2 grams



Sara Kidd is an Australian vegan pastry chef and bestselling author. She teaches online baking classes while managing the vegan cake group on Facebook called Vegan Cake Decorating. Learn more about Sara at Sarakidd.com



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NOTES FROM THE VRG SCIENTIFIC DEPARTMENT VEGAN EDUCATION

Thank you to Whitney McVerry for coordinating over 20 volunteers in reading more than 200 essay submissions to our college scholarship contest. Kudos to all the volunteers for contributing their time, and of course thank you to the donors for your support. The next deadline is February 20, 2025. See vrg.org/scholarship

Thanks to Whitney, Justin, Della, and Millie for staffing a VRG booth at the Wilmington, North Carolina VegFest. Also thank you to Heather for staffing booths at the Rhode Island VegFest and Maine VegFest. Both Whitney and Heather are fabulous former VRG interns. For information about internships, see vrg.org/student

Reed Mangels, PhD, RD, worked with intern Priscila Reis from Brazil to complete a vegan Brazilian meal plan. Look for this in the next *Vegan Journal*. Priscila is a nutrition major.

VRG Research Director Jeanne Yacoubou is returning to school for another master's degree and taking a course on life-cycle assessments (LCA), which assesses the environmental impact of products over their life-cycle from initial extraction to final disposal. This will enable her to analyze environmental assessments of animal-based and plant-based foods and see if the assumptions and estimations needed to do the LCA analyses are realistic. You can see Jeanne's previous work on water use at vrg.org/environment/water_brochure.pdf

SCIENTIFIC UPDATE

by Reed Mangels, PhD, RD, FADA

A Review of Recent Scientific Papers Related to Vegetarianism

The Effects of Our Food Choices on the Earth

By Priscila C. Reis, VRG Intern

Food systems were responsible for 34% of all global greenhouse gas emissions in 2015, as well as for 70% of world freshwater use and for 78% of water pollution. Are some diets a greater burden on the ecosystem than others? To answer that question, researchers from the University of Oxford analyzed diets of subjects from a large study of what 55,504 United Kingdom adults were eating between 1993 and 1999. Study subjects self-identified as vegans, vegetarians, fish eaters, or meat eaters.

The information on what people ate was linked to another database that included life-cycle assessments from 38,000 farms located in 119 countries. Life-cycle assessments analyze the environmental impacts of food products and could include their growth, production, shipping, and other factors. This analysis provided information such as estimates of greenhouse gas emissions, water use, land use, water pollution, eutrophication risk, and biodiversity loss.

All of the environmental indicators showed that the more animal-based food that is consumed, the greater the impact. In comparison to diets high in meat (three or more ounces of meat daily), vegan diets resulted in about 75% lower greenhouse gas emissions. Land use and eutrophication risk were around 70% lower with vegan diets. Vegan diets also had a much lower impact on biodiversity and on water use.

The relation between environmental impacts and animal-origin food consumption is clear and should prompt its reduction. Plant-based diets are much more sustainable and must be supported and encouraged by government policies, such as environmental labeling on foods and taxation of high-carbon foods. Other measures, including financial benefits for sustainable growers and reducing the prices of plant foods, could help to increase consumption of plant foods.

Scarborough P, Clark M, Cobiac L, et al. Vegans, vegetarians, fish-eaters and meat-eaters in the UK show discrepant environmental impacts. *Nat Food.* 2023; 4:565-574.

Vegan Diet Improves Cardiovascular Health: Results of a Twins Study

Identical twins offer an opportunity to study people who are genetically very similar and raised in similar environments. A recent study featured 22 pairs of twins who were randomly assigned to follow either a healthy vegan diet or a healthy omnivorous diet for eight weeks. Both diets emphasized vegetables, fruits, and whole grains and limited sugar and refined grains. The nonvegan diet included, on average, 6-8 ounces of meat, fish, or poultry; 1 egg; and 1.5 servings of dairy each day. The vegan diet included, on average, 5 servings of legumes, nuts, seeds, or vegan meat.

Participants were told to eat until they were full; weight loss was neither encouraged nor discouraged. For the first four weeks of the study, a meal delivery service was provided to study participants free of charges. For the remaining four weeks, participants prepared their own foods.

At the end of the eight-week study period, the group eating a vegan diet had a significant improvement in LDL-cholesterol, fasting insulin, and weight compared with the omnivore group. These results are especially striking since both groups ate healthier diets than they were eating prior to the study. The fact that the study compared one identical twin to another makes it more likely that changes in health outcomes are mainly due to differences in diets.

Landry MJ, Ward CP, Cunanan KM, et al. Cardiometabolic effects of omnivorous vs. vegan diets in identical twins: A randomized clinical trial. *JAMA Netw Open.* 2023;6(11):e2344457.

Vegan Diets Associated with Less Air Pollution

Food production, especially animal agriculture, is a major source of emissions of ammonia and methane, both of which contribute to air pollution and its associated health risks, including heart and lung disease. European researchers investigated the theoretical impacts on air quality of changing from a meat-heavy diet to more plant-based diets. They examined "flexitarian" diets, which had low levels of animal products, vegetarian, and vegan diets. A global dietary change to a flexitarian diet would reduce agricultural emissions by 44-48% and to a vegetarian diet would reduce emissions by 69-70%. A global change to vegan diets was the most effective, reducing emissions by 84-86%.

The reduction in emissions would decrease the number of early deaths due to air pollution. A global change to a vegan diet would result in 236,000 fewer deaths per year. In regions with high population density and intensive agriculture, such as Europe and North America, premature deaths due to air pollution could be reduced by approximately 20% per year.

These results suggest that moving towards more plant-based, ideally vegan, diets could be an effective way to reduce air pollution and the health impacts associated with air pollution.

Springmann M, Van Dingenen R, Vandyck T, et al. The global and regional air quality impacts of dietary change. *Nat Commun.* 2023;14:6227.

Healthier Plant-Based Diet Associated with a Lower Risk of Cognitive Impairment in Older Adults in China

A study of more than 6,600 adults older than 65 years, living in China, followed participants for a median of 10 years. The study determined the amount of "healthy plant foods" and "less healthy plant foods" that study subjects ate at the beginning of the study and after three years of the study, and the change in "plant-based dietary quality" over those three years was calculated. Changes in cognitive impairment were assessed in the last seven years of the study. Mild cognitive impairment is believed to be a precursor for dementia. Those subjects who had a large increase in plant-based dietary quality, meaning they ate more

"healthy plant foods," had a significantly lower risk of developing cognitive impairment. Those who had a large increase in their consumption of "unhealthy plant foods" had a significantly higher risk of developing cognitive impairment. Greater increases in meat and fish intake were also associated with a higher risk of cognitive impairment. Although subjects were not necessarily vegetarian, this study points to the potential importance of choosing healthy plant foods such as whole grains, beans, fruits, vegetables, and nuts.

Ding K, Zeng J, Zhang X, et al. Changes in plant-based dietary quality and subsequent risk of cognitive impairment among older Chinese adults: A national community-based cohort study. *Am J Clin Nutr.* 2023;118:201-208.

Do International Dietary Guidelines Consider Climate Change?

Many countries, including the United States, have food-based dietary guidelines. These guidelines provide advice about what constitutes a healthy diet using commonly eaten foods. Guidelines are often the foundation of nutrition policies to be used by schools, the food industry, and others.

Globally, food systems are responsible for a third of human-induced greenhouse gas emissions. A recent study examined the extent to which dietary changes to benefit the environment are included in dietary guidelines from 92 countries.

About 40% of countries acknowledged the link between environmental sustainability and food choices. The most common advice was to choose local and seasonal foods to reduce emissions due to transportation. While this offers some economic and health benefits, transportation accounts for less than 5% of global food-related emissions. Only about a quarter explicitly called for reducing meat consumption; just one country recommended reducing dairy consumption, while eight encouraged increased dairy consumption.

Overall, most countries did not fare well on a scoring system this study developed to assess the degree to which dietary guidelines included advice about reducing food-related greenhouse gas emissions. The median score was 31 out of 100—failure in any grade book.

Aguirre-Sanchez L, Teschner R, Lalehandani NK, et al. Climate change mitigation potential in dietary guidelines: A global review. *Sustain Prod Consum*. 2023;40:558-570.

Ancient Grains by Linda Tyler

hat is an ancient grain? Just like "superfood," the phrase "ancient grain" is more a marketing term than a scientific category. The closest I've found as an accepted definition is from the Whole Grains Council, which states that grains that are largely unchanged over the last several hundred years can be called "ancient."

This means that modern wheat, which is constantly hybridized by growers, is not an ancient grain, while other types of wheat, including einkorn, emmer, farro, Khorasan wheat, and spelt, would be considered ancient grains. Most lists of ancient grains encompass amaranth, barley, bulgur, freekeh, millet, teff, and quinoa. To add even more nuance—or confusion—to the definition of "ancient grains," amaranth, buckwheat, and quinoa are actually pseudo-grains; they are seeds from broadleaf plants, not from grasses.

Some ancient grains are currently used more often as flour than as intact grains. Spelt, a type of wheat that has been cultivated since at least the Bronze Age in parts of Europe, is the preferred whole wheat flour of many bakers because it performs the closest to all-purpose white flour in baked goods. It's still delicious as a whole cooked grain, but it has more competition

when it comes to cooked grains used in bowls, pilafs, and salads. The tiny grain teff is also often used as a flour, appreciated by gluten-free bakers especially.

Most ancient grains are not refined like white flour and white rice. This means they are higher in fiber, vitamins, and minerals compared to refined grains. However, some ancient grains are used in crackers and other processed foods that are predominantly made from refined ingredients; it's important to read labels.

Cooked ancient grains are fantastic in bowls, salads, soups, side dishes, pilafs, and hot cereal—it's easy to substitute them for rice in many dishes. Cooked grains can also be included in veggie burgers, yeast breads, quick breads, and smoothies. Two ancient grains—amaranth and sorghum—can be puffed or popped like popcorn, although amaranth's tiny kernels don't yield a large volume.

Cooking and tasting notes on ancient grains

- Many larger ancient grains (including farro, sorghum, spelt, and other whole wheat grains) have a chewy texture that can surprise people when first encountered.
 I find this chewiness very pleasant, but it may take some time to get used to.
- Water absorption can vary for many of these grains depending on age and moisture level. It's perfectly fine if there is water left over when the grain is fully cooked. Just drain off the excess water.
- While whole grains like brown rice and quinoa often yield 3 or 4 times the volume of uncooked grains to cooked grains, many ancient grains result in a smaller yield, because the grains are denser when cooked.

Granola with **Ancient Grains**

(Makes 7 cups)

2 cups uncooked old-fashioned oats

1 cup roughly chopped nuts (almonds, cashews, and pecans—all one kind or a combination)

3 cup small uncooked grains (amaranth, millet, quinoa, and teff—all one kind or a combination)

1/4 cup raw seeds (hemp, pumpkin, sesame, and sunflower—all one kind or a combination)

1/4 cup unsweetened shredded coconut

1½ Tablespoons chia seeds

1½ Tablespoons flaxseed meal

2 teaspoons cinnamon

½ teaspoon ginger powder

1/8 teaspoon salt (optional)

½ cup date syrup or ¾ cup maple syrup

2 Tablespoons almond, cashew, or peanut butter

1 Tablespoon water

2 teaspoons vanilla extract or vanilla powder

3/3 cup mixed dried fruit and/or cocoa nibs

Preheat oven to 300 degrees. Line two baking pans with parchment paper or silicone mats.

In a large bowl, stir together the dry ingredients (oats through optional salt). Next, in a small bowl or measuring cup, whisk together the wet ingredients (date syrup through vanilla extract).

Pour the wet ingredients into the dry ingredients. Stir until well combined, then divide the mixture between the two pans in thin, even layers.

Bake the granola for 25-35 minutes, stirring after about 20 minutes, and then checking regularly after that. (Note: If you use maple syrup rather than date syrup, baking time may increase by 5-10 minutes.) The granola should be dry and darker, and the nuts should be nicely roasted. The granola will crisp up as it cools. Allow the granola to sit on the pans and cool completely. Then stir in dried fruit or cocoa nibs.

Store the granola in airtight containers. It stays fresh for 2-3 weeks at room temperature.

Note: Nutrition information will vary depending on the type of grains, seeds, nut butter, and sweetener used.

Total calories per ½-cup serving: 229 Carbohydrates: 30 grams

Fat: 11 grams Protein: 6 grams Sodium: 17 milligrams Fiber: 6 grams



Carrot Cake Hot Cereal with Ancient Grains

(Serves 4)

4 cups water

1 cup uncooked ancient grains (amaranth, millet, quinoa, steel-cut oats, and/or teff)

1 cup grated carrots (1 large or 2 medium carrots)

1/4 cup unsweetened shredded coconut

2 Tablespoons flaxseed meal

1 teaspoon ground cinnamon

1/2 teaspoon ground ginger

1/4 teaspoon ground nutmeg

1/4 teaspoon salt (or to taste)

2/3 cup black or golden raisins

1/3 cup chopped pecans or walnuts

1 teaspoon vanilla extract or vanilla powder

Vegan milk for topping

Maple syrup or date syrup for topping

Dried fruit and nuts for topping

Pressure Cooker Instructions

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Add the first 9 ingredients (water through optional salt) to an Instant Pot. Lock the lid. Move the knob to "Sealing." Use the "Manual," "Pressure Cook," or "High" mode and set for 5 minutes. Wait 10 minutes after it's done cooking, then move the knob to "Venting" and release the remaining steam before opening the lid.

Stove Top Instructions

On the night before or at least 2½ hours before serving, bring the water to a boil in a large saucepan. Turn off the heat. Add the 8 ingredients after water (the grains through the salt) and stir. Cover the pan and let it stand 2 hours or overnight.

After 2 hours or in the morning, bring the mixture to a boil, reduce to low, and simmer until grains are tender, 10-15 minutes. Add more water if needed.

To Serve

Immediately add the raisins, nuts, and vanilla and stir. The cereal is ready to serve. Top with any or all of the suggested toppings.

The cooked cereal will last in the refrigerator for about a week. It can also be frozen.

Note: Nutrition information will vary depending on the type of grains used.

Total calories per serving (without toppings): 373 Fat: 14 grams
Carbohydrates: 59 grams
Sodium: 175 milligrams
Protein: 7 grams
Fiber: 9 grams



Black Bean and Sorghum Chili

(Serves 6)

3-4 cups low-sodium vegetable broth 1 cup dried, unsoaked black beans or two 15.5-ounce cans black beans 3/4 cup uncooked whole grain sorghum 1 medium onion, diced (1½ cups) 1 bell pepper (any color), seeded, diced 3 cloves garlic, finely chopped One 14.5-ounce can no-salt-added diced tomatoes 2 Tablespoons tomato paste 11/2 Tablespoons chili powder 2 teaspoons tahini 11/2 teaspoons dried oregano 1½ teaspoons cumin 1 teaspoon unsweetened cocoa powder 1 teaspoon smoked paprika 1/8 teaspoon cinnamon Freshly ground black pepper Extra spices: cayenne pepper, chipotle chili powder, chopped chipotles with some adobo sauce from a

1/3 cup chopped fresh cilantro 1 Tablespoon fresh lime juice

2 teaspoons reduced sodium soy sauce or Bragg Liquid Aminos

can, or a fresh jalapeño, seeded and diced

1 teaspoon maple syrup

Optional toppings: avocado, cilantro, red or green onions, vegan sour cream or crema (recipes for sour cream and crema at graciousvegan.com)

Pressure Cooker Instructions

Add the broth, beans, and sorghum to a pressure cooker. Lock the lid. Move the knob to "Sealing." Use the "Manual," "Pressure Cook," or "High" mode and set for 23 minutes. When the pressure cooking is done, immediately move the knob to "Venting" and release the remaining steam before opening the lid.

After opening the lid, add the next 14 ingredients (onion through "Extra spices"). Reseal the lid, move the knob to "Sealing;" use the "Manual," "Pressure Cook," or "High" mode; and set for 8 minutes. When the pressure cooking is done, immediately move the knob to "Venting" to release the steam before opening the lid.

Stir cilantro, lime juice, soy sauce, and maple syrup into the chili and then taste for spices.

Stove Top Instructions

Use two 15.5-ounce cans black beans (drained and rinsed) and 3 cups of vegetable broth. Start by cooking the sorghum, following package directions until tender, then drain off any excess water. In a Dutch oven or large soup pan, combine the sorghum, beans, vegetable broth, and the next 14 ingredients (through "Extra spices"). Bring the mixture to a boil and then turn down the heat, cover the pot with the lid ajar, and simmer for about an hour, stirring every 10 minutes or so and adding water if the chili gets dry.

Stir cilantro, lime juice, soy sauce, and maple syrup into the chili and then taste for spices.

To Serve

The chili is ready to serve right away, although the flavors improve significantly after sitting for a few hours. Serve chili with one or more of the optional toppings. The chili will last 1 week in the fridge.

Total calories per serving: 254 Carbohydrates: 49 grams Sodium: 164 milligrams Fat: 2 grams Protein: 11 grams Fiber: 11 grams



Greek Farro Salad

(Serves 6)

1½-2½ cups water or vegetable broth 1 cup uncooked pearled farro

Dressing

- 3 Tablespoons fresh lemon juice
- 2 Tablespoons tahini
- 2 Tablespoons water
- 2 teaspoons dried oregano
- ½ teaspoon salt, or to taste
- 1/4 teaspoon freshly ground black pepper

3 large kale leaves or about 3 ounces baby kale, chopped and massaged (yielding about 3 cups) 1 cup halved grape or cherry tomatoes ½ cup (or more) halved or chopped Kalamata olives ½ cup chopped or thinly sliced red onion

Pressure Cooker Instructions

Add 1½ cups water and farro to a pressure cooker. Lock the lid; turn the knob to "Sealing;" use the "High," "Pressure Cook," "Multigrain," or "Manual" mode; and set for 8 minutes. Wait for 10 minutes after the pressure cooking is done, then move the knob

to "Venting" and release the remaining steam before opening the lid. Drain off any excess water.

Stove Top Instructions

Bring 2½ cups water to a boil in a saucepan, stir in farro and bring the mixture back to a boil. Then reduce the heat to low, cover the pot, and simmer gently until the grains are tender, 15-20 minutes. When the grains reach the desired texture, remove the pot from the stove and drain any excess water.

To Serve

Make the dressing by whisking together the lemon juice, tahini, water, oregano, salt, and black pepper with a fork or in a small blender.

Once the farro has cooled to warm, transfer it into a large bowl. Add kale, tomatoes, olives, and onions, and stir gently.

Toss the salad with half the dressing, taste, and adjust seasonings and/or add more dressing.

The salad is ready to serve at room temperature or chilled. The salad will last 4-5 days in the refrigerator. It does not freeze well.

Total calories per serving: 189 Carbohydrates: 31 grams Sodium: 280 milligrams Fat: 5 grams
Protein: 6 grams
Fiber: 6 grams



Shawarma Spelt, Chickpea, and Cauliflower Bowls

(Serves 6)

21/4-41/2 cups low-sodium vegetable broth

1½ cups uncooked spelt

1/4 teaspoon salt (optional)

3 Tablespoons water

2 Tablespoons tahini

11/2 teaspoons ground cumin

11/2 teaspoons garlic powder

1 teaspoon smoked paprika

3/4 teaspoon ground coriander

½ teaspoon salt, or to taste

1/4 teaspoon allspice

1/4 teaspoon crushed red pepper flakes, or to taste

One 15.5-ounce can chickpeas, drained and rinsed

1 medium head cauliflower, cut into florets

1 cup prepared hummus

3 Tablespoons water

2 cloves garlic, finely chopped

1½ teaspoons dried or 1½ Tablespoons fresh dill

Optional toppings: diced tomatoes, cucumbers, onions, parsley, and/or cooked vegetables

Dukkah or za'atar (recipes at graciousvegan.com)

Pressure Cooker Instructions

Add 2½ cups broth, spelt, and salt to a pressure cooker. Lock the lid; turn the knob to "Sealing;" use the "High," "Pressure Cook," "Multigrain," or "Manual" mode, and set for 25 minutes. Wait for 10 minutes after it is done, move the knob to "Venting;" and release the steam before opening the lid. Drain off any excess water.

Stove Top Instructions

Bring 4½ cups broth to a boil in a saucepan, stir in spelt and optional salt, and bring the mixture back to a boil. Reduce the heat to low, cover the pot, and simmer gently until the grains are tender, 65-80 minutes. When the grains reach the desired texture, remove the pot from the stove and drain any excess water.

To Serve

Preheat oven to 425 degrees. Line two sheet pans with parchment paper. In a large bowl, whisk the water, tahini, cumin, garlic powder, paprika, coriander, salt, allspice, and red pepper flakes together. Add the chickpeas and cauliflower, using a spatula to stir and entirely



coat everything. Divide the chickpeas and cauliflower between the two pans and roast them for 15 minutes. Then stir and return to the oven for 5-8 minutes, or until the cauliflower is tender with brown edges.

Stir together the hummus, water, garlic, and dill in a bowl or blend in a small blender.

Assemble bowls using the spelt, chickpeas, cauliflower, sauce, and optional toppings and spices.

The individual elements for the bowls will last about a week in the fridge. Cooked spelt freezes well.

Total calories per serving: 381 Carbohydrates: 56 grams Sodium: 487 milligrams Fat: 9 grams Protein: 16 grams Fiber: 11 grams



Walnut Cookies with Toasted Quinoa

(Makes about 24 cookies)

1/3 cup uncooked red or white quinoa

2 cups walnut pieces

½ cup oat flour

1/3 cup maple syrup

1/4 cup cacao nibs, raisins, dried cranberries, dried cherries, or other dried fruit

3 Tablespoons flaxseed meal

2 Tablespoons chia seeds

2 teaspoons vanilla extract or vanilla powder

1/4 teaspoon salt, or to taste

Preheat oven to 350 degrees. Line two sheet pans or cookie sheets with parchment paper or silicone mats.

On the stove top, scatter the quinoa in a wide skillet and turn the heat to medium or medium/low. Stir or shake the quinoa frequently until it begins to pop, turn darker, and smell like popcorn, 5-7 minutes. As soon as it has been popping for about a minute, pour it into a medium bowl and let cool for 5-10 minutes.

Grind the walnuts in a food processor or use a handheld grinder. Make sure there are still plenty of small chunks of walnuts. Add the walnuts and the remaining ingredients to the quinoa and stir well.

Use a 1½-Tablespoon cookie scoop or a spoon to drop mounds of dough onto the cookie sheets. Flatten the cookies with your hand, a fork, or the bottom of a glass (moistened if needed to prevent sticking). Bake for 10-14 minutes or until just golden brown.

Let the cookies cool on the pans. They are ready to eat as soon as you can handle them, or they can be stored in an airtight container at room temperature for several days.

Total calories per cookie: 114 Carbohydrates: 9 grams Sodium: 27 milligrams Fat: 8 grams Protein: 5 grams Fiber: 1 gram

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The Cost of Beans vs. Meat

by Reed Mangels, PhD, RD

eans, also known as legumes, (see vrg.org/journal/vj2022issue4/2022_issue4_nutrition_hotline.php from Issue 4 2022 of *Vegan Journal* for an explanation of terms) are amazing. People who eat more beans have a lower risk of heart disease¹ and type 2 diabetes² and a lower risk of dying from stroke.³ Beans are versatile and can be used in appetizers, soups, salads, entrées, breads, desserts, and more. Beans may be overlooked when we search for a convenient meal or snack. They are easy to prepare—just open a can, rinse and drain the beans to reduce sodium, and mix with a flavorful sauce. Or with a little planning, you can cook a batch of dried beans and freeze individual portions for a quick meal.

In 2023,⁴ we reported a study that we conducted comparing the prices of meat-like veggie burgers and vegan ground meat to animal meat. We recently expanded our study to include canned and dried beans because these products are often less expensive sources of protein, iron, and other nutrients that are also supplied by veggie burgers and vegan ground meat.

In May and June 2023, we obtained price information from Instacart that allowed us to determine the least expensive canned black beans, pinto beans, chickpeas, and vegan refried beans and the least expensive dried black beans, pinto beans, split peas, and lentils in Atlanta and Los Angeles. In each city, we selected a store in a regional supermarket chain and identified the lowest

priced canned and dried beans from that store. We also updated the prices for the least expensive meat-like veggie burgers, vegan ground meat, and animal meat from the stores we used for bean prices. All prices were converted to the cost per serving of product, were non-sale prices, and did not include a shopper discount. Additionally, we calculated the price per 100 calories of each product and the price per 10 grams of protein from each product. We also compared the nutrient content of selected products.

We found that prices across the board were somewhat lower in Atlanta than in Los Angeles (Table 1). In both cities, dried beans cost the least per serving, followed by canned beans, then by animal meat, and then by veggie meat. Dried beans cost between 10 cents and 20 cents per serving, depending on the type of bean and the location of the store. Canned beans cost between 25 cents and 40 cents per serving. Compare that to 80 cents to over \$2 for a serving of animal meat and 80 cents to \$1.24 for a serving of veggie meat. It's clear that beans offer significant cost savings. When you're looking for a low-cost, nutritious, convenient food, remember beans!

Thanks to Mae Y. Seon and Stephanie Kumar for their vital assistance in collecting all of the data used in this article.

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Background Photos by FreePik

Table 1. Comparison of Product Cost in Atlanta and Los Angeles

Product	Product Package Size		Price Per Serving Los Angeles	
Canned Beans				
Black beans, canned	15.5-ounce can	\$0.25	\$0.37	
Chickpeas, canned		\$0.25 (based on 15.5-ounce can)	\$0.40 (based on 4 pack of 15-ounce cans	
Pinto beans, canned		\$0.25 (based on 15.5-ounce can)	\$0.30 (based on 40-ounce can)	
Vegetarian refried beans, canned	16-ounce can	\$0.37	\$0.40	
Dried Beans				
Black beans, dried		\$0.15 (based on 1-pound bag)	\$0.19 (based on 2-pound bag)	
Lentils, dried		\$0.16 (based on 14-ounce bag)	\$0.20 (based on 1-pound bag)	
Pinto beans, dried	4-pound bag	\$0.10	\$0.11	
Split peas, dried	1-pound bag	\$0.17	\$0.20	
Veggie Burger Products				
Beyond Meat Cookout Classic Plant-Based Burger Patties	32-ounce package	\$1.92	\$2.12	
Lightlife Smart Ground Plant- Based Crumbles Original	12-ounce package	\$0.80	\$1.06	
Animal Meat				
Ground Beef Roll, 73% Lean/ 27% Fat	a managed to	\$1.00 (based on 5-pound package)	\$1.24 (based on 3-pound package)	
Seasoned Beef Patties	4-pound package	\$0.80	\$0.84	

Table 2 shows what we found when we calculated the cost of 100 calories from each product. Dried and canned beans cost less per 100 calories than did animal meats or veggie meats.

Table 2. Price per 100 Calories

Product	Cost for 100 Calories, Atlanta	Cost for 100 Calories, Los Angeles
Pinto Beans, dried	\$0.10	\$0.11
Lentils, dried	\$0.13	\$0.17
Green Split Peas, dried	\$0.14	\$0.17
Black Beans, dried	\$0.15	\$0.19
Black Beans, canned	\$0.21	\$0.31
Chickpeas, canned	\$0.21	\$0.33
Vegetarian Refried Beans, canned	\$0.25	\$0.27
Pinto Beans, canned	\$0.25	\$0.33
Ground Beef Roll	\$0.29	\$0.35
Beef Patties	\$0.32	\$0.34
Plant-Based Burger Patties	\$0.66	\$0.73
Plant-Based Crumbles	\$1.14	\$1.51

Table 3. Price per 10 Grams of Protein

Product	Cost for 10 Grams of Protein, Atlanta	Cost for 10 Grams of Protein, Los Angeles
Pinto Beans, dried	\$0.12	\$0.14
Lentils, dried	\$0.18	\$0.22
Black Beans, dried	\$0.19	\$0.24
Green Split Peas, dried	\$0.21	\$0.25
Black Beans, canned	\$0.31	\$0.46
Pinto Beans, canned	\$0.36	\$0.50
Vegetarian Refried Beans, canned	\$0.41	\$0.44
Chickpeas, canned	\$0.42	\$0.67
Beef Patties	\$0.50	\$0.52
Ground Beef Roll	\$0.59	\$0.73
Plant-Based Crumbles	\$0.80	\$1.06
Plant-Based Burger Patties	\$1.07	\$1.18

Table 4 compares the nutrients in dried beans, veggie meats, and animal meat on a per serving basis. Beans and one of the veggie meat products had lower calories and protein than animal meat and the other veggie meat. Beans did not contain significant amounts of saturated fat and thus, were markedly lower in saturated fat than animal meat. Beans help to meet the recommended daily allowances for protein and other nutrients while meeting recommendations, such as those in the Dietary Guidelines for Americans, to avoid excess saturated fat. Dried beans had the lowest amount of sodium unless salt was added in cooking. Canned beans can be drained and rinsed, or lower-sodium products can be selected to reduce their sodium content. A serving of beans, whether dried and cooked or canned, has an iron content similar to that of a serving of animal meat.

Table 4. Comparison of Nutrients in Dried Beans, Veggie Meats, and Animal Meats

Product	Serving Size	Calories	Protein (g)	Saturated Fat (g)	Sodium (mg)	Iron (mg)
Dried Beans						
Black Beans	¼ cup dry beans	0 100	0.8	0	0	1.8
Pinto Beans	1/4 cup dry beans	100	8	0	0	1.8
Split Peas	¼ cup dry peas	120	8	0	0	2
Lentils	¼ cup dry lentils	120	9	0	0 -	2
Canned Beans						
Black Beans	½ cup	120	8	0	300	2.5
Chickpeas	½ cup	120	6	0	300	1.6
Pinto Beans	½ cup	100	7	0	300	_ 2 +
Vegetarian Refried Beans	½ cup	150	9	0	350	1.8
Veggie Meats						
Lightlife Smart Ground Plant-Based Crumbles Original	¹⁄₃ cup	70	10	0	170	1.9
Beyond Meat Cookout Classic Plant-Based Burger Patty	4-ounce patty	290	18	7	340	3.7
Animal Meats						
Kroger seasoned ground beef patty, raw	4-ounce patty	250	16	7	430	1.8
Ground beef, raw 75% lean	4 ounces	331	18	11	75	2

Source: Manufacturers' information for dried beans, veggie meats and ground beef patty; USDA Food Data Central (fdc.nal.usda.gov) for animal-based ground meat

Veggie Bits

Konscious California Roll

Skip the sushi bar and reach into your freezer for a better plant-based fix with Konscious at the ready. Creamy



vegan crab, avocado, and pickled cucumbers taste impeccably fresh for something that comes out of a box, beating the average supermarket sushi by a mile. Most impressively, the seasoned rice still has a perfectly al dente bite, demonstrating the ideal range of textures for well-made maki. Konscious also makes a spicy version of the classic California roll, along with plant-based poke bowls and *onigiri* (rice balls.) Take them to work or school straight out of the freezer, and they'll be thawed and ready to eat by lunchtime. Otherwise, run them under hot water for a few minutes or microwave for a few seconds. Getting ethical, flavorful, and healthy sushi has never been easier. Non-GMO certified, gluten-free, and vegan. Available at Safeway, Sprouts Farmers Markets, and Whole Foods. Find more information at Konscious.com Hannah Kaminsky/Senior Editor

NoBull Burgers

Billing itself as a premium whole foods vegetable burger, NoBull starts with a base of green lentils, brown rice, and quinoa in all five of its unique patties. Hearty and wholesome, they



stand tall on a traditional build with lettuce, tomato, and onion on a soft sesame seed bun, but also lend themselves beautifully to more creative cooking ventures. Go ahead, crumble them up, and add them to Bolognese sauce, tacos, stuffed peppers, and more. With the Original, Savoy Mushroom, Spicy Italian, Sundried Tomato, and Madras Curry, there's no reason to muddle through another boring burger night again. Find them in the freezer aisle at Whole Foods, select specialty grocers, and online at Nobullburger.com *Hannah Kaminsky/Senior Editor*

Impossible Beef Lite

A leader in the competitive field of alternative proteins, Impossible Foods has truly outdone themselves with their latest creation that slims down their original, ground-breaking



meatless grounds. In addition to being lower in fat, calories, and sodium than its predecessors, pound for pound, it's also the most protein-packed plant-based beef to date. What it doesn't cut down on is flavor, delivering a lighter and healthier option without compromising on taste. It's the perfect comeback for any naysayers claiming that vegan options lack flavor or satisfaction compared to traditional alternatives. Halal, gluten-free, and vegan. Available at select Sprouts Farmers Markets, Walmarts, and more national retailers to come. Find more info at Impossiblefoods.com *Hannah Kaminsky/Senior Editor*

Mike's Organic Curry Love Pastes

Given the incredibly broad and diverse range of curries in the world, it can be daunting to create your own aromatic blend from scratch. Curry Love has done the hard work for you, blending lemongrass, makrut lime leaves, galangal, and many other unique specialties to make authentic curry pastes in every color. Unlike conventional options, you can rest assured that these mixes won't include any hidden shrimp paste or fish sauce. Simply add coconut milk, your favorite vegetables, and any plant-based protein, and you have a restaurant-worthy meal in minutes. These Thai-style curry flavors include yellow, green, red, penang, and massamun, with heat levels ranging accordingly, and easy to adjust to personal preferences. Each one makes enough for about four servings, so you can easily feed the whole family or have leftovers to enjoy later, after the spices have further harmonized. These convenient pouches are shelf-stable for up to two years unopened. Certified organic, gluten-free, nut-free, soy-free, and vegan. Find them in many grocery stores, such as Harris Teeter, Sprouts Farmers Market, Whole Foods, and more or online at Currylove.com Hannah Kaminsky/Senior Editor

Veggie Bits

Gear Hugger Lubricant and Degreaser

Anyone concerned about their environmental impact should look beyond the kitchen and into the garage, too. Traditional lubricants and degreasers are based on toxic ingredients that are not only

Hannah Kaminsky/Senior Editor



detrimental to the planet, but also genuinely dangerous to use around small children and animals. Gear Hugger offers multipurpose solutions that are water-based, plant-powered, and petroleum-free. Use them on everything from squeaky hinges to rusted screws and even scuffed tennis shoes. Any equipment with moving parts can benefit from a little eco-friendly TLC. Buy from Lowe's, REI, and other sporting goods stores; online through Amazon; or directly from Gear-hugger.com

Franklin Farms Veggie Balls



For anyone who craves a

veggie burger that actually tastes like vegetables, these are the plant-based meatballs for you. There's nothing meaty about them, and that's the whole attraction. Instead, simple, whole foods populate the ingredients list that manifests in global flavors far beyond the realm of plain protein. Choose among Portabello Veggie Balls, Falafel Veggie Balls, and Plantain & Black Bean Veggie Balls to unlock a bold new world of savory seasonings. Sold refrigerated alongside the tofu and other meat alternatives, they're fully cooked and ready to eat. You can heat them in an air fryer, a skillet, or even a microwave. Remarkably tender, hearty, and satisfying, they're an excellent entreé to have on hand for busy days. Certified vegan and non-GMO. Available at Acme, Sprouts Farmers Market, and other grocery stores. Visit Franklinfarms.com for more information. Hannah Kaminsky/Senior Editor

La Tourangelle Truffle Oil

While most bottles of truffle oil have never seen a mushroom in their lives, La Tourangelle is one of the few widely available options that start at the source.



Both their Black Truffle Infused Oil and White Truffle Infused Oil begin with a base of organic high-oleic sunflower oil and natural truffle extract. That translates to a clean, clear drizzle that packs bold flavor into every drop. Because it's so concentrated, a little bit goes a long way. Ideally suited for uncooked or low-heat dishes, it's best saved as a finishing touch where it can really shine. Use it to dress salads, popcorn, pasta, soups, avocado toast, roasted vegetables, mashed potatoes; just about anything and everything savory can be enhanced with a tiny splash. Certified Non-GMO, gluten-free, vegan, and expeller-pressed oils. Available at select gourmet specialty stores, Amazon, and Walmarts. More information at Latourangelle.com *Hannah Kaminsky/Senior Editor*

7th Heaven Chocolate Bars

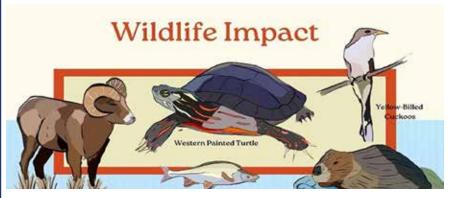
Dark chocolate gets all the attention for its antioxidants and complexity, but there are still certain cravings that call for a sweeter, creamier chocolate treat. 7th Heaven combines all the best elements of cacao, nostalgia, and decadence to arrive at uniquely indulgent



dairy-free confections. Oat milk is at the heart of their award-winning formula, smooth and velvety, with a soft, fudgy bite. Rich, thoughtfully crafted fillings define each unique segmented confection, stuffed with Nutella-like hazelnut purée, halva-inspired pistachio cream, coconut nougat that will make the conventional alternative seem entirely joy-less, and much more. The Peanut Butter and Cornflakes variety is a best seller for obvious reasons. Adults will love them as much as kids, if they're lucky enough to get a taste. Vegan, kosher, and fair-trade. Available at 7thheavenchocolate.com *Hannah Kaminsky/Senior Editor*

The VRG's 2023 Video Video Contest Winners

Save Our Fresh Water!

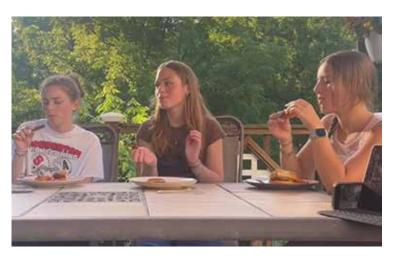


The Colorado River Solution by Marian Gonzalez

I am interested in vegetarianism for environmental reasons. A goal of mine is to reduce pollution by raising awareness about the devastating effects of the meat industry. By advocating a vegetarian lifestyle, I believe the public can counteract the ethical dilemmas introduced by factory farming.

See: vrg.org/veg_videos.php#coloradoriversolution

Meat Alternatives Are Tasty!



*Meat or Meatless?*by Megan Wilkinson

Initially, I went vegetarian because of the inhumane practices of meat husbandry. I grew up near two large meat packing plants, so I frequently witness trucks transporting cattle or pigs to those facilities. It has always made me sad, which motivated me to go vegetarian when I was 12. I've remained vegetarian because of the environmental impact of the meat industry, and advocate for more people to adopt a vegetarian lifestyle (or include less meat in their diet)! I hope to go vegan one day once my lifestyle supports it!

See: vrg.org/veg_videos.php#meganwilkinson

Video scholarships have been given in honor of W.M. Zahn, who was a great mentor. View winners of the video contest at vrg.org/veg_videos.php

The deadline for the next VRG video contest is July 15, 2024.

See: vrg.org/videoscholarship.php

A Hilarious Veggie Adventure

Toin The Veggie Revolution by Gianna Brown

I'm interested in vegetarianism because it seems like a good way to be kind to animals, protect the environment, and maybe even improve my health. I want to learn more about how eating a plant-based diet can make a positive impact overall.

See: vrg.org/veg_videos.php#gianna



Dance Your Way to A New Lifestyle

Veganism: The Way To Go by Michelle Anoka

"It is health that is real wealth and not pieces of gold and silver."

—Gandhi. This statement is one that I live by as I embark on my healthy lifestyle journey. Taking charge and controlling what I put in my body has been very effective with vegetarianism, and I have noticed a vast difference in my health. It also impacts the environment and is highly sustainable, as it requires fewer resources compared to animal agriculture, which contributes to the increase in greenhouse emissions that are harmful to the Earth.

See: vrg.org/veg_videos.php#michellevegetarianrap



BEQUESTS

The VRG depends on the generous contributions of our members and supporters to continue our educational projects. Though the world may not become vegan in our lifetimes, we realize that we are planning and working for future generations.

- Your will and life insurance policies enable you to protect your family and also to provide a way to give long-lasting support to causes in which you believe. Naming The Vegetarian Resource Group in your will or life insurance policy will enable us to increase our work for vegetarianism.
- One suggested form of bequest is: I give and bequeath to The Vegetarian Resource Group, Baltimore, Maryland, the sum of _______ dollars (or if stock, property, or insurance policy, please describe).
- To be sure your wishes are carried out, please speak with your attorney specifically about writing the correct information in your will.

Higher-Protein Plant Milks

By Reed Mangels, PhD, RD

There are certain times when people's protein needs may increase. For example, the recommendation for protein during pregnancy is 25 grams, or about 50%, higher than it is when someone is not pregnant. Older adults may have higher protein needs than younger adults. Athletes may have somewhat higher protein needs than non-athletes.¹ It's entirely possible to meet protein needs with a vegan diet. Sometimes, choosing a higher-protein plant milk can help to meet protein needs.

We've identified some higher-protein plant milks to help meet those goals. Since plant milks are often also used as a source of calcium, vitamin D, and vitamin B12, we've included information about whether the milks we identified are fortified with these nutrients.

- West Life Smoothie Blend plain, unsweetened, and chocolate provide 16 grams of protein per cup. Fortified with calcium (320-330 mg/cup), vitamin D (4.3-4.4 mcg/cup), and vitamin B12 (1.1 mcg/cup).
- Edensoy unsweetened organic provides 12 grams of protein per cup of milk. Fortified with calcium (40 mg/cup) but not with vitamin D or vitamin B12.
- Pacific Foods Ultra Soy has 10 grams of protein in a cup. Fortified with calcium (280 mg/cup), vitamin D (2.5 mcg/cup), and vitamin B12 (1.5 mcg/cup).
- Edensoy Extra Original provides 10 grams of protein per cup. Fortified with calcium (280 mg/cup), vitamin D (1.1 mcg/cup), and vitamin B12 (2.9 mcg/cup).
- Silk Protein original and chocolate add pea protein to a blend of almond milk and cashew milk and have 10 grams of protein per cup. Fortified with calcium (450 mg/cup) and vitamin D (2.5 mcg/cup). Do not provide vitamin B12.
- Orgain Protein Almondmilk lightly sweetened vanilla and unsweetened vanilla add pea protein and have 10 grams of protein in 1 cup. Fortified with calcium (250 mg/cup) and vitamin D (2.5 mcg/cup). Do not provide vitamin B12.
- Edensoy original organic provides 10 grams of protein per cup of milk. Fortified with calcium (90 mg/cup) but not with vitamin D or vitamin B12.

- Pacific Foods organic unsweetened soymilk has 9 grams of protein per cup. Not fortified with calcium, vitamin D, or vitamin B12.
- West Life organic unsweetened plain and organic unsweetened vanilla provide 9 grams of protein per cup. Organic plain soymilk has 8 grams of protein per cup. None of these products are fortified with calcium, vitamin D, or vitamin B12.
- Good Karma Flaxmilk + Protein shelf-stable vanilla adds pea protein to flaxmilk and has 8 grams of protein per cup. Fortified with calcium (320 mg/cup), vitamin D (2.3 mcg/cup), and vitamin B12 (1.4 mcg/cup). Other Good Karma products, even those with added protein, have only 5 grams of protein per cup.
- **Ripple Kids** original and unsweetened are based on pea protein and have 8 grams of protein per cup. Fortified with calcium (455 mg/cup), vitamin D (6 mcg/cup), and vitamin B12 (1.1 mcg/cup).
- Ripple, pea protein-based milk for adults, has 8 grams of protein per cup. It is available in original, unsweetened original, vanilla, unsweetened vanilla, and chocolate flavors and in refrigerated and shelf-stable cartons. Fortified with calcium (440 mg/cup), vitamin D (5-6 mcg/cup), and vitamin B12 (1.1-2.5 mcg/cup). Fortification between refrigerated and shelf-stable products varies.
- West Life organic plain or vanilla soymilk with calcium and vitamin D have 8 grams of protein per cup. Fortified with calcium (300-310 mg/cup), vitamin D (4.8 mcg/cup), and vitamin B12 (1.1 mcg/cup).
- Edensoy cocoa organic provides 8 grams of protein per cup of milk. Fortified with calcium (90 mg/cup) but not with vitamin D or vitamin B12.

REFERENCE

¹ Larson-Meyer DE, Ruscigno M. *Plant-Based Sports Nutrition. Expert Fueling Strategies for Training, Recovery, and Performance.* Champaign, IL: Human Kinetics; 2020.

Vegetarian Resource Group Catalog

Vegan in Volume (\$20) by Chef Nancy Berkoff. This 272-page quantity cookbook is loaded with terrific recipes serving 25. Try Curried Vegetables with Polenta, Eggplant Lasagna, Mushroom-Asparagus Risotto, Spicy Bean Cakes with Fruit Salsa, Veggie Spring Rolls, Homestyle Molasses Cookies, Sophisticated Poached Pears, and more.

Suitable for parties in your own home, catered events, college foodservices, restaurants, weddings, and much more.

Wok Wisely (\$10) by Dharma Realm Cookbook Team of Taiwan. Enjoy a wide variety of traditional Chinese vegan dishes, as well as beautiful photos, in this 184-page book. Some of the recipes include four types of veggie broth, Cellophane Noodle Salad with Ginger Sauce, Sesame Spinach, Sweet and Sour Nuggets, Shanghai Bok Choy with Enoki Mushrooms and Ginger, Corn Chowder, Fragrant Noodle Soup, Hot and Sour Soup, and Rice Balls.

The Lowfat Jewish Vegetarian Cookbook (\$15)

by Debra Wasserman. This 224-page vegan cookbook features over 150 lowfat traditional Jewish recipes from around the world. Enjoy Cake-Like Rye Bread, Russian Flat Bread, Lebanese Walnut Spread, Mock Chopped Liver, Armenian Tomato Soup, Polish Plum and Rhubarb Soup, Bulgur and Grape Salad, Polish Dilled Cucumbers, Russian Eggplant and Pomegranate Salad, Potato Knishes, Romanian Sweet Pasta, Moroccan Couscous, Hamentashen, Sweet Fruit Kugel, etc. Also find 33 Passover dishes and many Rosh Hashanah dinner suggestions.

Plant-Powered Families (\$19.95) by Dreena Burton. This 308-page cookbook features over 100 family-friendly, whole-food vegan recipes and photos. Start

your morning with Creamy Breakfast Rice Pudding or

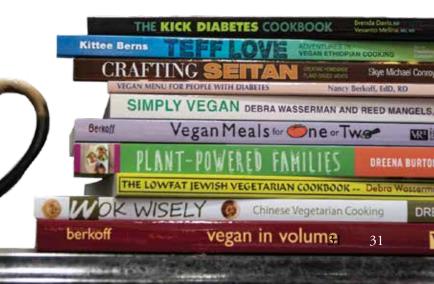
Vegan Journal Vol. 43, Issue 2, 2024

French Toast. For lunch try Red Lentil Hummus, Chickpea Nibbles, or Artichoke Spinach Dip, and for dinner try Creamy Fettuccine, Smoky Bean Chili, and Ultimate Teriyaki Stir-Fry. Desserts include Almond Butter Fudge or "Nicer" Krispie Squares.

Vegan Meals for One or Two—Your Own Personal Recipes (\$15) by Nancy Berkoff, EdD, RD. Whether you live alone, are a couple, or are the only one in your household who is vegan, this 216-page book is for you. Each recipe is written to serve one or two people and is designed so that you can realistically use ingredients the way they come packaged from the store. Information on meal planning and shopping is included, as well as breakfast ideas, one-pot wonders, recipes that can be frozen for later use, grab-and-go suggestions, everyday and special occasion entrées, plus desserts and snacks.

Simply Vegan (\$15.95) by Debra Wasserman and Reed Mangels, PhD, RD. These 224 pages contain more than 160 quick-and-easy vegan recipes, a complete vegan nutrition section, and a list of where to order vegan food, clothing, cosmetics, and household products. Vegan menus and meal plans. Over 100,000 copies have been sold.

Vegan Menu for People with Diabetes (\$10) by Nancy Berkoff, EdD, RD. This 96-page book gives people with (or at risk for) diabetes a four-week meal plan, exchange listings for meat substitutes and soy products, and recipes for dishes such as Creamy Carrot Soup, Tangy Tofu Salad, Baked Bean Quesadillas, Lentil Chili, Asian Noodle Bowl, and French Toast.



Crafting Seitan (\$24.95) by Skye Michael Conroy. This 208-page cookbook contains detailed instructions on how to prepare seitan-based dishes in your home. Colorful photos will entice you to make Chikun Piccata, Seasoned Breaded Fried Chikun, Beaf Brisket, Spicy Thai Beaf Salad, Classic Pot Roast, Deli-Style Pastrami, Schnitzel, Pulled Porq, Country-Style and Raack Ribz, plus more.

Teff Love (\$21.95) by Kittee Berns. Enjoy creative vegan Ethiopian recipes such as Injera bread, Ye'atakilt Wot (potatoes, carrots, and cauliflower in a spicy sauce), Ye'ater Kik Alicha (split peas in a mild sauce), Ye'dubba Alicha (roasted butternut squash in a mild sauce), Garlic Jojos (crispy, garlicky potato wedges baked with Ethiopian spices), or desserts like Mocha Teff Brownies and Spiced Teff Snickerdoodles.

Kick Diabetes Cookbook (\$19.95) by Brenda Davis, RD, and Vesanto Melina, MS, RD. If you or someone you know has diabetes and wants to follow a vegan diet, this book is for you. The first section features information on foods that help regulate blood glucose levels, along with several helpful charts indicating which nutrients decrease diabetes risk and which increase the risk. Next, the reader is provided with useful tips on cooking vegan cuisine, including 100 quick-and-easy recipes such

as Banana-Walnut Pancakes, Carrot Spice Muffins, Navy Bean and Mushroom Soup, Mango and Black Bean Salad, Red Cabbage with Apples, and Vanilla Chai Pudding. Nutritional analyses and beautiful photos appear throughout the cookbook. *The Kick Diabetes Cookbook* has 192 pages.

For these three handouts, a donation to cover printing and postage would be appreciated.

I Love Animals and Broccoli Coloring Book

A coloring book that promotes healthful eating and vegetarianism for children ages 3-7.

Vegan Nutrition in Pregnancy and Childhood

Brochure with essential nutrition info and meal plans.

Vegan Nutrition for Teenagers

Brochure with all of the basics about veggie nutrition.

Bumper Stickers "Be Kind to Animals—Don't Eat Them" or "Vegans Have Good Hearts" \$1 each

Vegan Journal subscriptions \$25 per year in the U.S., \$35 in Canada/Mexico, and \$45 in other countries.



Order Form

To order, mail to The Vegetarian Resource Group, P.O. Box 1463, Baltimore, MD 21203; place your order over the phone at (410) 366-8343, Mon-Fri 9 a.m. to 5 p.m. ET; or order online at our website: vrg.org

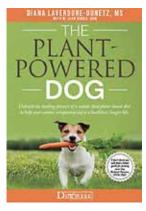
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Book Reviews

The Plant-Powered Dog

by Diana Laverdure-Dunetz, MS, with W. Jean Dodds, DVM

Vegans love their canine companions, but when it comes to feeding them, there's often a tug at the heart. Many commercial pet food brands are far from plant-based, never mind



questionably healthful. There's even been back and forth about the scientific viability of a vegan diet for dogs. Can they get enough protein? Can they digest plant materials? And do we have to subject other animals to cruelty to feed our companions?

The Plant-Powered Dog is the most comprehensive guide to sustaining your pooch's health on a veggie diet I have ever seen. In part one, Laverdure-Dunetz breaks down the reasons to transition your pet to veganism, the nutritional science behind it, ingredients, recipes, and advice for dealing with picky eaters. Part two covers plant-based dietary support for various canine diseases, including cancer, diabetes, food intolerances, chronic kidney disease, obesity, and GI disorders.

The author shares her journey in the book, explaining how she started with a Master of Animal Sciences and had a business creating custom fresh diets for pets. However, when she went vegan, Laverdure-Dunetz did not want to harm animals to feed pets, and the ethical conflict was wearing on her soul.

As she delved into researching plant-based diets for dogs, she discovered that, not only was there a huge demand for fresh vegan pet food, but it was also a health-supporting option for canines. Her clients offered their pups vegan meals, and the dogs thrived.

Because Laverdure-Dunetz knew she couldn't prepare food for all dogs everywhere, she decided to write a book, get her research out to the public, and share what she had learned by offering up the most current scientific data. Some of her science includes an examination of dogs from a genetic perspective, i.e., are they like wolves and what that means in terms of nutritional needs. She takes a look at how chronic inflammation from commercial pet foods is affecting our dogs. The canine microbiome is also discussed, and all these are related back to the animal's diet and other lifestyle factors. And in case you haven't guessed, vegan dog food can indeed provide adequate nutrition.

How to make it all work is another factor, though, as fresh is best in all matters of food. The author lays out charts with ingredient options, food blends, and more to help make it easy to set yourself up for success making homemade plant-based dog food. She teaches practical ways to plan your pet's diet and even support their specific needs by age, breed, activity level, season, and wellness challenges. Supplements are also covered.

If your pet has serious health concerns or is reaching end of life, Laverdure-Dunetz has you covered. Her breakdowns of food and supplements are incredibly specific by physical malady. Her understanding of animal science has both reach and depth. The compassion she feels not just as a vegan, but as a doglover, really comes through as she offers support for canine health conditions, many of which have become chronic in current times.

This book is well-researched and crammed with up-to-date information to help you feed your dog a healthful vegan diet for life. Though dense with data, it's still easy to follow. If you're considering a vegan or plant-forward diet for your dog, *The Plant-Powered Dog* will be an invaluable resource.

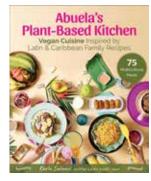
The Plant-Powered Dog (ISBN 978-1-61781-330-6) is 378 pages. It is published by Dogwise Publishing and retails for \$29.95.

Rissa Miller/Former Senior Editor

Abuela's Plant-Based Kitchen

by Karla Salinari

Karla's cooking was influenced by her exposure to two culinary worlds—one in Miami (where her step father was of Cuban background)



and the other in Puerto Rico, where her dad began to follow a plant-based diet, and her aunt and uncle owned a vegetarian restaurant. She creatively reminds readers that traditional Caribbean food is healthy and generally easy to prepare. Gorgeous photographs of dishes such as Garbanzos Guisados (Chickpea Stew), Sopa de Platano (Plantain Soup), and Chivato de Calabaza (Calabaza Custard) are included.

Abuela's Plant-Based Kitchen (ISBN 978-1-5107-7271-7) is 175 pages and published by Skyhorse Publishing. It retails for \$29.99.

Debra Wasserman/VRG-Coordinator

Vegan Cooking Tips

Getting A Lift

Baking Soda vs. Powder

by Chef Nancy Berkoff, EdD, RD

Both baking powder and baking soda help baked products rise. The two products may look very similar, but they are very different in how they interact with ingredients.

When making dense and moist baked goods like banana or zucchini bread, carrot cake, muffins, cornbread, brownies, pound cake, or chewy cookies, consider using baking soda. When creating light, airy treats like pancakes, layer cakes, and biscuits, consider baking powder. Some recipes use both baking soda and baking powder, to fine tune the resulting height and texture for a more specific combination.

Baking soda is also called "sodium bicarbonate." Baking soda is an alkaline (opposite of acid) product, such as vinegar (acid) versus Alka Seltzer (alkaline). If you are interested in understanding the science of alkaline and acid, you'll want to do a search for "pH" when you have the time.

When baking soda is combined with an acid, it creates carbon dioxide gas (think: baking soda and vinegar volcanoes!). The bubbles and gas are what helps a baked product to rise. Baking soda reacts with acids in a recipe (such as lemon, lime, or orange juice; vinegar; or vegan yogurt), neutralizing them and creating carbon dioxide. The bubbles from the carbon dioxide get trapped in the batter and cause them to rise. You've seen this if you have watched bubbles rise to the top in carbonated water. With a batter, the bubbles can't escape, so they take the batter with them, lifting them and creating leavening. You will want to follow the baking soda amounts listed in a recipe, as too little will result in too flat a product, while too much could cause over-rising and a bitter taste. Over-rising might sound okay, but an over-high brownie or cookie would be dry and crumbly.

Baking powder is a combination of baking soda and a dry acid, like cream of tartar or sodium

aluminum sulfate. Acid requires fluid to react. The baking soda component of baking powder does not react until combined with a liquid. This means that baking powder reacts more slowly than baking soda alone, providing more time for air to get trapped. This results in a higher and more tender product.

Double-acting baking powder is the most common form of baking powder. With double-acting baking powder, the first rise occurs when you are combining ingredients in a bowl and the baking powder gets wet at room temperature. The second rise happens when the baking powder is heated, when baking has started. This step-wise rising helps to produce a fluffy, but moist, product.

Single-acting baking powder skips the first rise of double acting baking powder and only reacts once it reaches a high temperature. This type of baking powder is almost exclusively used by professional pastry chefs.

There are some times when a recipe uses both baking soda and baking powder:

- •If the baking soda successfully neutralizes the acid but doesn't create enough carbon dioxide to leaven the batter completely, then baking powder is used for extra lift.
- •If the recipe calls for acidic ingredients specifically for their flavor, like lemon juice or vinegar, too much baking soda would completely neutralize that flavor. Using both baking soda and baking powder will leave enough acid to give the final product a tangy flavor, while providing a nice lift.
- •Baked goods brown better in highly alkaline environments. To brown better, baking soda is added to recipes where baking powder is the main leavening agent to create a more alkaline environment.

Helene Greenberg

Founder and Executive Director of VegFest Expos by Amy Burger



Vegan food is "the gateway drug to veganism," says Helene Greenberg, Founder and Executive Director of VegFest Expos. Greenberg organized her first VegFest in October 2014. That Raleigh, North Carolina, event, which was planned in four months, was attended by close to 2,000 people.

Since the inaugural Triangle VegFest 2014, Greenberg's work has expanded to five states throughout the Southeast, and along with her team, her non-profit organization, VegFest Expos, plans and facilitates ten festivals each year. Greenberg personally attends each festival, saying "I wouldn't have it any other way."

The festivals are mostly held during the warmer months, meaning Greenberg stays extra busy with events from May through October. The rest of the year, she evaluates the success of each event and plans for the following year. This work can feel hectic at times, but Greenberg says, "The stories about someone choosing

to go vegan or make healthy changes because they attended our festivals is the type of reward that helps us to push through the harder, more difficult times."

While Greenberg has experienced several obstacles, the most difficult challenge happened in 2022. "We had to move Asheville, North Carolina, our largest festival, because of Hurricane Ian to the same weekend as Chattanooga, Tennessee. We did two festivals, in two states, 3½ hours apart in one weekend. It was the most stressful month of my life."

In the nine years since her first VegFest, Greenberg says the work is ultimately fulfilling: "This is my activism. We get to reach tens of thousands of people and help them learn about why veganism is incredibly important... We have the best VegFest team, whom I couldn't do this without, along with all the volunteers who sign up to help and then show up and do an incredible job."

Greenberg encourages prospective sponsors, vendors, and volunteers to visit VegFest Expos' website, vegfestexpos.com, to learn more about opportunities for involvement. Details about upcoming events are listed there for attendees as well.

For more updates, check out the VegFest Expos social media accounts on Facebook, Instagram, and Twitter and consider attending one or more of their events. See:

Website: vegfestexpos.com

Facebook: facebook.com/VegFestExpos Instagram: instagram.com/vegfestexpos

Amy Burger is a former VRG intern who writes for *Vegan Journal* as a volunteer. Amy lives in Georgia, where she works as a college librarian and part-time teacher. Her hobbies include cooking and traveling.





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FROM THE VRG BLOG

Purchase a New Vegan Belt Online

Vegan belts come in so many different styles, colors, and materials today!

See: vrg.org/blog/2023/12/19/purchase-a-new-veganbelt-online-worldwide



Thinking About Potassium 20 Good Sources of Potassium for Vegans See: vrg.org/blog/2023/11/28/thinking-about-potassium

New Report on Plant-Based Trends in School Lunches When you think of school lunch, do entrées like Thai Chili Tofu, Chana Masala, Vegan Tostadas and Tamales, and a Tofu Katsu Bowl come to mind? See: vrg.org/blog/2023/11/10/new-report-highlightsplant-based-trends-in-school-lunches-in-california

Vegan Pizza Served at Pizzeria Uno



Pizzeria Uno is featuring Vegan Garden Pizza, Vegan Cheese Pizza, and Vegan Cheeseburger Deep Dish Pizza. See unos.com/menus/glutenfree-vegan-pizza.php

You can find each pizza's ingredients and nutritional breakdown at unos.com/nutrition.php

For information about veggie restaurants throughout the U.S. and Canada, see vrg.org/restaurant/index.php

For information about veggie options at other restaurant chains, see vrg.org/fastfoodinfo.php