Don't Have a Cow?

THE LATEST IN PLANT MILKS

BY LINDSAY MOYER & MARLENA KOCH



Dumping dairy? The payoff: plant milks have a lighter impact on our overheating planet. And you have more options than ever. Choose carefully, and you can still net as much—or more—of milk's key nutrients plus some healthy fats, all while keeping a lid on added sugar. Here's what to know.

1 Best Bite or Honorable Mention? Both meet our basic targets for calcium, vitamin D, added sugar, and saturated fat. But only Best Bites also meet our targets for vitamin B-12 and protein.

2 Look for calcium and vitamin D. Our Best Bites and Honorable Mentions match dairy: at least 300 milligrams of calcium and 2.5 micrograms—that's equal to 100 IU—of vitamin D per cup.

We say "at least" because the Food and Drug Administration now lets plant (and dairy) milks contain twice that much vitamin D, and many toss in extra calcium (see p. 14).

3 Cut the sugar with an "unsweet" or "original" milk. "Unsweet" means zero added sugar, but many "original" milks don't go much higher. For example, Silk Protein Original, Planet Oat Original, and Silk Original Soy all taste great...and they do it with no more than 1 teaspoon (5 grams) of added sugar per cup, our max for Best Bites and Honorable Mentions. (A cup of dairy milk has 12 grams of naturally occurring milk sugar.)

4 Skip coconut milk and its saturated fat. A cup of most coconut milks has 4 to 5 grams of sat fat (20 to 25 percent of a day's worth). Nearly all other plant milks get their fats from nuts, seeds, soy, or oils like sunflower or canola, so it's easy to limit saturated (unhealthy) fat to 1½ grams or less—the amount in 1% dairy milk—while getting more *unsaturated* (healthy) fats than dairy.

5 You might want a plant milk with vitamin B-12. It matters most if you're over 50 or eating vegan and not already taking a multivitamin.

A vegan diet excludes the dairy, eggs, and meat that supply B-12. And, vegan or not, 10 to 30 percent of adults over 50 may have too little stomach acid to digest and absorb the "food-bound" B-12 in animal foods. So experts recommend a supplement or foods with 2.4 mcg a day of *added* B-12. (It's absorbed without stomach acid.)

Our Best Bites have at least as much B-12 as dairy (1.2 mcg per cup). Since many nut milks don't add B-12, we didn't require it in Honorable Mentions.

6 Does protein matter? Not for the average adult, who consumes well over the Daily Value (50 grams). But if you eat mostly plants, you may want a decent dose of protein in your milk. So our Best Bites have at least 7 grams per cup. That's typical for soy milk and on a par with dairy milk's 8 grams.

Getting plenty of protein elsewhere? Our Honorable Mentions have no minimum. They include oat, hemp, and nut milks (which have around 1 to 4 grams).

7 Avoid rice milk. Rice soaks up arsenic from the soil and water more readily than other grains do. The heavy metal is a human carcinogen and can impair learning in children. With plenty of other milks to choose from, why go there?

8 For a potassium bonus, choose soy, pea, or oat milk. Many have enough naturally occurring or added potassium to mimic what's in dairy milk. But you won't find much potassium in milks made from nuts or hemp seeds, so we didn't set a minimum for our Best Bites or Honorable Mentions.

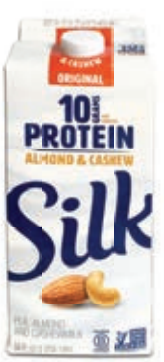
Another soy milk perk: It's a good source of magnesium. So is hemp milk.



Silk Original Soy
As much protein, potassium, calcium, D, and B-12 as dairy. Mmm.



Ripple Original
Pea protein milk's nutrients look a lot like soy's ...and it tastes great.



Silk Original Protein
A creamy standout with 10 grams of protein and only 2 grams of sugar.



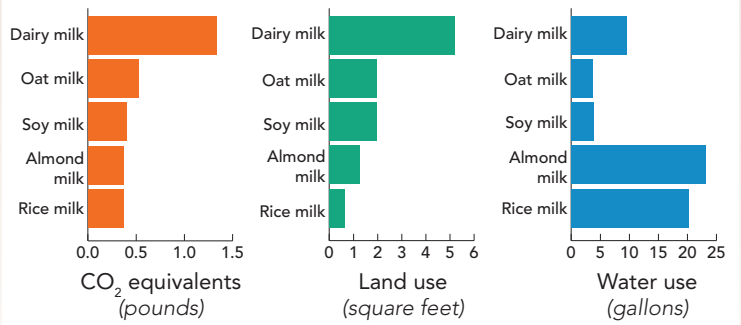
Planet Oat Extra Creamy
Our taste-testers' top oat Honorable Mention.



Silk Unsweet Oat
Silk makes the best-tasting zero-sugar oat milk we found.

Photos: Moving Moment/stock.adobe.com (top), Silk (bottom right), Marlena Koch/CSPI (all others).

For Every Cup of Milk...



Here's what it takes to produce a typical cup of dairy, oat, soy, almond, or rice milk in North America, say researchers. No surprise: Plants heat up our planet less than cows. Making dairy milk releases about 2½ to 3½ times as much "carbon dioxide equivalents" as making oat, soy, almond, or rice milk. Plants also gobble up less land, though almonds and rice need more water.

Source: *Science* 360: 987, 2018 (with additional calculations by author J. Poore).

What's Next?

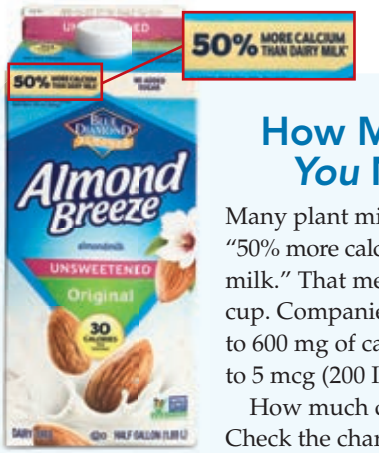
New **Silk Nextmilk** is "so rich and creamy, you won't miss dairy." "You won't believe it's not from a cow," says **So Delicious Wondermilk**.

How do these next-generation alt-milks do it? They mix creamy oat milk, coconut milk, and coconut oil—enough coconut to add 4 to 6 grams of saturated fat per cup, alas. That's 20 to 30 percent of a day's worth. (They also add a little soy.)

What's more, they don't match dairy's nutrients. Silk boasts that it's an "excellent source of 6 key nutrients found in dairy"—including calcium and vitamins D and B-12—but it falls short on protein (4 grams) and potassium. Ditto for Wondermilk, which has just 1 gram of protein. To fill those gaps, go with a first-generation soy or pea protein Best Bite like **Silk Original Soy** or **Ripple Original** instead.



Its protein (4 grams) is no match for dairy's (8 grams).



Calcium varies from milk to milk. Ditto for vitamin D.

How Much Do *You* Need?

Many plant milks now boast "50% more calcium than dairy milk." That means 450 mg per cup. Companies are adding up to 600 mg of calcium...and up to 5 mcg (200 IU) of vitamin D.

How much do you need? Check the chart for your Recommended Dietary Allowance (RDA), then do a rough tally of what you get in a typical day:

- **Calcium.** Count roughly 250 mg for each serving of dairy (150 mg for Greek yogurt), then tack on any in a multivitamin plus 250 mg from the rest of your diet.
- **Vitamin D.** It's rare in foods (unless it's added, usually to cereals or milk). Most multivitamins supply at least the RDA.

Keep in mind that more calcium isn't always better. For example, getting too much from supplements or fortified foods like plant milks could raise the risk of kidney stones (see Mar. 2023, p. 3). On the other hand, many people need a supplement to get enough vitamin D.

	Women	Men
Age 19-50	**Calcium:** 1,000 mg **D:** 15 mcg (600 IU)	**Calcium:** 1,000 mg **D:** 15 mcg (600 IU)
Age 51-70	**Calcium:** 1,200 mg **D:** 15 mcg (600 IU)	**Calcium:** 1,000 mg **D:** 15 mcg (600 IU)
Age 71+	**Calcium:** 1,200 mg **D:** 20 mcg (800 IU)	**Calcium:** 1,200 mg **D:** 20 mcg (800 IU)



Misses an Honorable Mention by just 1 gram of added sugar.

What Else is New?

- **Extra creamy varieties.** Oat milks started it, then almond milks hopped aboard. The extra-creaminess comes from extra unsaturated oils like sunflower and (sometimes) nuts. That bumps up the calories, but at least they're coming from healthy fats.
- **Oats plus protein.** Yummy oat milk has one downside: It's low in protein. Solution: Add pea protein. **Califia Protein Oat Original** (8 grams of protein) edges out **Ripple Oatmilk + Protein** (6 grams), but our tasters preferred the Ripple.
- **Barista blends.** Need some oat or almond milk to foam up nicely in lattes—and not separate in hot drinks? We didn't find any Best Bites or Honorable Mentions, but creamy **Oatly Barista Edition** missed by just 2 grams of added sugar.
- **"Carrageenan-free" claims.** Most big brands have already replaced the controversial thickener—it may be linked to cancer—with safer gums like gellan, xanthan, or locust bean gum (see chemicalcuisine.org). So you don't *need* to avoid those gums by buying a "no added gums or emulsifiers" milk (like **Elmhurst** or **Malk**), unless you have allergies or you prefer their taste.

Photos Marlena Koch/CSPI.

Pour on the Plants

Best Bites (✔✔) and **Honorable Mentions** (✔) have no more than 1 teaspoon (5 grams) of added sugar and 1.5 grams of saturated fat, and at least 2.5 micrograms of vitamin D and 300 milligrams of calcium per cup. (Milks with a superscript "F" have at least 4 grams of sat fat.)

Best Bites also have at least 7 grams of protein and 1.2 mcg of vitamin B-12. (The names of *all* milks with at least that much B-12 are **in bold**.)

Milks are ranked from least to most added sugar, then most to least vitamin D, calcium, and protein, then least to most calories.

Note: Unless "refrigerated" or "shelf-stable" is specified, numbers for both kinds are the same.

	Calories	Added Sugar (tsp.)	Vitamin D (mcg)	Calcium (mg)	Protein (g)
Soy Milk *(1 cup)*					
✔✔ **365 Organic Unsweetened Original**	70	0	5	300	7
✔✔ **Silk Organic Unsweet** *(shelf-stable)*	80	0	3	300	8
✔✔ **Silk Organic Unsweet** *(refrigerated)*	80	0	3	300	7
Pacific Organic Unsweetened Original	90	0	0	30	9
✔✔ **Silk Original**	110	1	3	450	8
Edensoy Organic Original	130	1	0	90	10
365 Organic Original	100	1.5	5	300	7
Silk Vanilla *(refrigerated)*	100	2	3	470	6
Silk Chocolate *(refrigerated)*	150	3.5	3	470	9
Silk Very Vanilla *(refrigerated)*	130	3.5	3	470	6
Pea Protein Milk *(1 cup)*					
✔✔ **Ripple Unsweetened Original**	80	0	5	440	8
✔ Califia Protein Oat Original	140	0.5	5	590	8
✔ Silk Protein Original	130	0.5	2.5	450	10
✔✔ **Ripple Original** *(refrigerated)*	90	1	5	440	8
Ripple Oatmilk+Protein *(refrigerated)*	150	1.5	5	440	6
Silk Protein Chocolate	150	3.5	2.5	450	10
Alt-Milk *(1 cup)*					
✔ NotCo NotMilk 2% Reduced Fat	80	0.5	4.6	300	4
✔ NotCo NotMilk Whole	100	0.5	4.6	300	4
Silk Nextmilk 2% Reduced Fat[F]	90	0.5	4	310	4
Silk Nextmilk Whole Fat[F]	110	0.5	4	310	4
So Delicious Wondermilk 2% Reduced Fat[F]	70	0.5	3.6	300	1
So Delicious Wondermilk Whole Fat[F]	90	0.5	3.6	300	1
Oat Milk *(1 cup)*					
✔ **Silk Unsweet** *(refrigerated)*	50	0	4	470	1
✔ Planet Oat Unsweetened Original	45	0	4	350	1
✔ Planet Oat Unsweetened Vanilla	45	0	4	350	1
✔ **Silk 0g Sugar** *(shelf-stable)*	60	0	3	450	1
Chobani Zero Sugar Original	90	0	2	260	1
Elmhurst Milked Oats Unsweetened	100	0	0	20	3
Califia Oat+Almond Blend	60	0.5	4.4	260	2
Three Trees Organic Oatmilk with Seeds	100	0.5	4	30	4
Planet Oat Original *(shelf-stable)*	100	0.5	0.3	350	2
Planet Oat Vanilla *(shelf-stable)*	100	0.5	0.3	350	2
Califia Extra Creamy	110	1	4.4	260	2
✔ Planet Oat Original *(refrigerated)*	90	1	4	350	2
✔ Planet Oat Vanilla *(refrigerated)*	90	1	4	350	2
✔ Planet Oat Extra Creamy *(refrigerated)*	120	1	4	350	2
Planet Oat Extra Creamy *(shelf-stable)*	120	1	0.3	350	2
Silk Original *(refrigerated)*	120	1.5	4	470	1
Silk Extra Creamy	160	1.5	4	470	1
Oatly Low Fat	90	1.5	3.6	350	3
Oatly	120	1.5	3.6	350	3
Oatly Barista Edition	140	1.5	3.6	350	3
Oatly Full Fat	160	1.5	3.6	350	3
Silk Original *(shelf-stable)*	120	1.5	3	460	1
Chobani Vanilla	120	2	2	130	2
Planet Oat Dark Chocolate	140	2.5	4	350	3
Oatly Chocolate	150	4	3.6	350	3
Almond Milk *(1 cup)*					
✔ Almond Breeze Banana	80	0	5	450	2
✔ Almond Breeze Unsweetened—Original or Vanilla *(refrigerated)*	30	0	5	450	1
✔ Almond Breeze Coconutmilk Blend Unsweetened Original *(refrigerated)*	40	0	5	450	1
✔ Silk Unsweet Vanilla *(shelf-stable)*	30	0	2.5	450	1
Silk Unsweet *(refrigerated)*	30	0	2	470	1
Silk Unsweet Vanilla *(refrigerated)*	30	0	2	470	1
Silk Extra Creamy Unsweet	70	0	2	470	1
Almond Breeze Unsweetened—Original or Vanilla *(shelf-stable)*	30	0	0	450	1
Almond Breeze Coconutmilk Blend Unsweetened Original *(shelf-stable)*	40	0	0	450	1
Three Trees Organic Original	100	0	0	70	4
Malk Organic Unsweetened	70	0	0	40	2
✔ Almond Breeze Extra Creamy	80	1	5	450	1
Califia Extra Creamy	60	1	0	440	1
Califia Barista Blend	70	1	0	410	2
Almond Breeze Original *(refrigerated)*	60	1.5	5	450	1
Almond Breeze Reduced Sugar Vanilla	60	1.5	5	450	1
Silk Extra Creamy Original	90	1.5	2	470	1
Silk Less Sugar Vanilla	45	1.5	2	450	1
Almond Breeze Original *(shelf-stable)*	60	1.5	0	450	1
Silk Vanilla *(refrigerated)*	80	3	2	470	1
Silk Dark Chocolate *(refrigerated)*	100	4	2	440	1
Cashew, Hemp, Rice Milk *(1 cup)*					
✔ Tempt Hemp Unsweetened Coconut	50	0	5	390	2
✔ Tempt Hemp Unsweetened—Original or Vanilla	80	0	5	390	2
✔ Silk Unsweet Cashew	25	0	2.5	450	1
Pacific Hemp Unsweetened—Original or Vanilla	60	0	2	260	3
Elmhurst Milked Cashews Unsweetened	130	0	0	20	4
Rice Dream Organic Enriched Original	120	2.5	5	280	0
Coconut Milk *(1 cup)*					
Silk Unsweet[F]	40	0	2	470	0
Pacific Organic Original[F]	60	0	2	60	1
Silk Original[F]	70	1	2	470	0
So Delicious Organic Original[F]	70	1.5	2.5	130	0

✔✔ Best Bite. ✔ Honorable Mention. [F] Contains at least 4 g sat fat.

Daily Values (DVs)—Added Sugar: 12 tsp. (50 g). **Protein**: 50 g. **Vitamin B-12**: 2.4 mcg. **Saturated Fat**: 20 g. **Calcium & Vitamin D Recommended Dietary Allowances (RDAs):** See p. 14 chart.

Source: company information. Nutrition Facts and ingredients can change; check the label. The use of information from this article for commercial purposes is strictly prohibited without written permission from CSPI.