

What's Trending According to AI? How almonds can meet consumer demand





In today's ever-changing world, consumer demands are constantly evolving.

The Almond Board of California (ABC) is tapping into artificial intelligence (AI) to fuel inspiration for the future of almond innovation by partnering with Tastewise to provide the food & beverage industry with insights on consumers' fast changing culinary demands and preferences.

Tastewise is an AI-driven data platform that provides the actionable insights needed for resilient decision-making and change management in the food and beverage industry. The platform uses AI to analyse billions of food-related data from its customers, social media, recipes, menus, and more to provide accurate, up-to-date insights in real-time. In doing so, Tastewise digitises archaic workflows and speeds up innovation – ultimately improving alignment between what consumers actually want and need and the products available. For more information, please visit tastewise.io.

ABC have teamed up with plant-based chefs BOSH! to bring these trends to life through recipes to provide inspiration for product development that will meet evolving consumer demand. The recipes within this booklet have also been featured as part of a video series with BOSH!



About BOSH!

BOSH!, the biggest plant-based online channel in the world, is run by chef duo Henry Theasby and Ian Firth. BOSH! aims to make plant-based eating accessible for all consumers through their innovative recipes and range of products across retailers and foodservice. With over 800K followers on Instagram and over 1M cookbooks sold worldwide, BOSH! are spreading their plant-powered message far and wide.

Trending Consumer Needs

Tastewise has already proven to be instrumental in helping ABC identify new trends.

According to Tastewise data, the following keywords are trending in functional health consumer needs for almonds:

- ◆ Fitness
- ◆ Weight management
- ◆ Energy
- ◆ Gut health
- ◆ Wellness
- ◆ Blood sugar

Almonds are suitable for a whole range of dietary and lifestyle choices from vegetarian to keto to free-from.

Manufacturers can feel confident when using almonds to respond to a wide variety of consumers' health goals as they are one of the world's most researched foods with over 200 scientific publications to date evidencing their positive impact on heart health, gut health, cognitive function, weight management and skin health to name a few.



Fitness: Newly published research shows snacking on almonds can support muscle recovery—especially among those new to exercise. The study provides further proof that eating almonds reduces muscle soreness during exercise and improves muscle performance after exercise.



Weight Management: A recent study found that snackers with normal weight or who were overweight who ate almonds had no significant changes in weight and had better intake of many nutrients, including protein, unsaturated fats, fibre and vitamin E, compared to a high-carb control group.



Diabetes: Two new research studies showed that a simple addition of almonds to the diet may help reduce the burden of diabetes. More specifically, a handful of almonds eaten 30 minutes before breakfast, lunch and dinner for three months reversed prediabetes to normal blood sugar levels in nearly one-quarter of the people studied – improvements as potent as taking prescription diabetes medication.

Trends



Protein-packed Products

Protein continues to be a top factor in consumers' eating habits. According to Tastewise, it is the top nutritional consumer need in food and beverage and is growing by 4% YOY.

One occasion in which protein is particularly pertinent for consumers is breakfast. Protein is the dominating nutritional consumer need when it comes to breakfast with **8% of social posts relating to breakfast mentioning protein** and a **YOY growth of 10%**.

Almonds can support protein-led product development as they contain **6 grams of protein per 30g serving** and **pair well with other plant proteins like legumes and lentils**.



What's trending?

These protein-packed breakfast dishes are growing in interest.

- ◆ Overnight oats
- ◆ Breakfast burrito
- ◆ Chocolate granola
- ◆ Breakfast casserole





Bakewell Tart Magic Oats



"Baked" and "fibre" are both trending consumer needs in relation to "protein and breakfast"

Ingredients

For the baked oats

- ◆ 30g whole almonds
- ◆ 150g oats
- ◆ 50g ground almonds
- ◆ 2 tbsp flaxseed
- ◆ 1 tsp baking powder
- ◆ ½ tsp salt
- ◆ 225ml almond milk
- ◆ 4 tbsp maple syrup
- ◆ 1 tsp almond extract
- ◆ Handful of raspberries, fresh or frozen
- ◆ 2 tbsp almond butter

For the raspberry chia jam

- ◆ 125g raspberries, fresh or frozen
- ◆ 1 tbsp chia seeds

Method

Step 1: Roast the almonds

- ◆ Roast the almonds in a hot oven for 6-8 minutes, until golden brown and fragrant. Remove from the oven and roughly chop.

Step 2: Make the chia jam

- ◆ Tip the raspberries into a small saucepan, sprinkle over the chia seeds and add a large splash of water. Bring to a simmer over a medium heat and cook for 8-10 minutes, stirring occasionally, until the raspberries have burst and are jammy. Set to one side.

Step 3: Make the baked oats

- ◆ In a medium sized mixing bowl, combine the chopped almonds, oats, ground almonds, flaxseed, baking powder and salt and mix well.
- ◆ Pour in the almond milk, maple syrup and almond extract and mix again.
- ◆ Finally, fold in the raspberries, slightly crushing them as you mix them through.
- ◆ Line a baking tin with parchment paper and pour in the oat mixture and smooth over the top. Top the oats with 4 dollops of almond butter and 4 dollops of chia jam and swirl them together.
- ◆ Bake in the oven for 30-35 minutes until golden and crisp at the edges and slightly tender in the middle.



"Almond butter is extremely versatile - not only can it be used as a filling or drizzle but also as a binder."

FORMS USED:



Whole almonds



Almond butter



Ground almonds

Functional Foods



According to Innova Market Insights, **1 in 3 consumers claim to be proactive in preventing health issues** and the food they consume is one of the ways they manage this.

Gut health is one of the top 10 consumer functional health needs and is growing by 7% YOY. Desserts are a category where consumers are looking to prioritise their gut health. In fact, **social posts relating to gut health and desserts are growing by 30% YOY.**

Almonds can support gut healthy dessert innovation as they are high in fibre, which is essential for the normal functioning of the gut. What's more, recent research found that **almond consumption could be linked to a healthier gut.** The [study from Kings College London](#) reported that almonds may improve the gut microbiome by increasing microbiome diversity, while decreasing relative levels of potentially harmful bacteria.



What's trending?

These gut-healthy desserts are growing in interest.

- ◆ Banoffee pie
- ◆ Frozen Yoghurt



Probiotic Coco Crunch Tart



Almonds contain 4g of fibre per 30g serving

Ingredients

For the base

- ◆ 150g medjool dates
- ◆ 120g oats
- ◆ 160g almonds
- ◆ 3 tbsp cacao powder
- ◆ 3 tbsp coconut oil, melted
- ◆ 2 tbsp maple syrup
- ◆ 1 tsp flaky sea salt

For the filling

- ◆ 2 bananas
- ◆ 100g plant-based live yoghurt
- ◆ 50g almond butter
- ◆ 2 medjool dates
- ◆ 2 tbsp cacao powder
- ◆ 2 tbsp coconut oil, melted
- ◆ 1 tsp vanilla extract
- ◆ 1 tsp flaky sea salt
- ◆ Handful of flaked almonds

Method

Step 1: Make the base

- ◆ Remove the stones from the dates and soak them in boiling water for 10 minutes so that they slightly soften. Drain the water from the dates.
- ◆ Add the almonds and oats to a food processor and pulse until they have the texture of a coarse flour. Then add the soaked dates, cacao, melted coconut oil, maple syrup and flaky salt.
- ◆ Process until the mixture starts to clump together. Add a splash of boiling water to the mixture to bind together if needed.
- ◆ Press the mixture into the tart tin, pressing it up the fluted sides. Chill in the freezer whilst you make the filling.

Step 2: Make the filling

- ◆ Add the bananas, yoghurt, almond butter, dates, cacao powder, coconut oil, vanilla and salt to the food processor and blend until smooth and velvety.
- ◆ Pour the filling into the tart case and smooth it over with the back of a spoon.
- ◆ Heat the frying pan over a medium heat and toast the almonds for 4–5 minutes, shaking and tossing the almonds so that they get an even colour. Sprinkle them over the tart.
- ◆ Transfer the tart to the freezer for at least 3 hours to set.

Step 3: Serving

- ◆ When ready to serve, remove from the freezer and allow to stand for about 10 minutes before removing from the tin.
- ◆ The tart will keep in the freezer for up to three months.



"Flaked almonds are great for adding texture to softer desserts."

FORMS USED:



Whole almonds



Almond butter



Flaked almonds

Plant-based Innovation

Plant-based demands are continuing to evolve and products with global flavours are becoming increasingly popular.

Korean is the fastest growing cuisine in plant-based foods with a **46% YOY growth in social posts**.

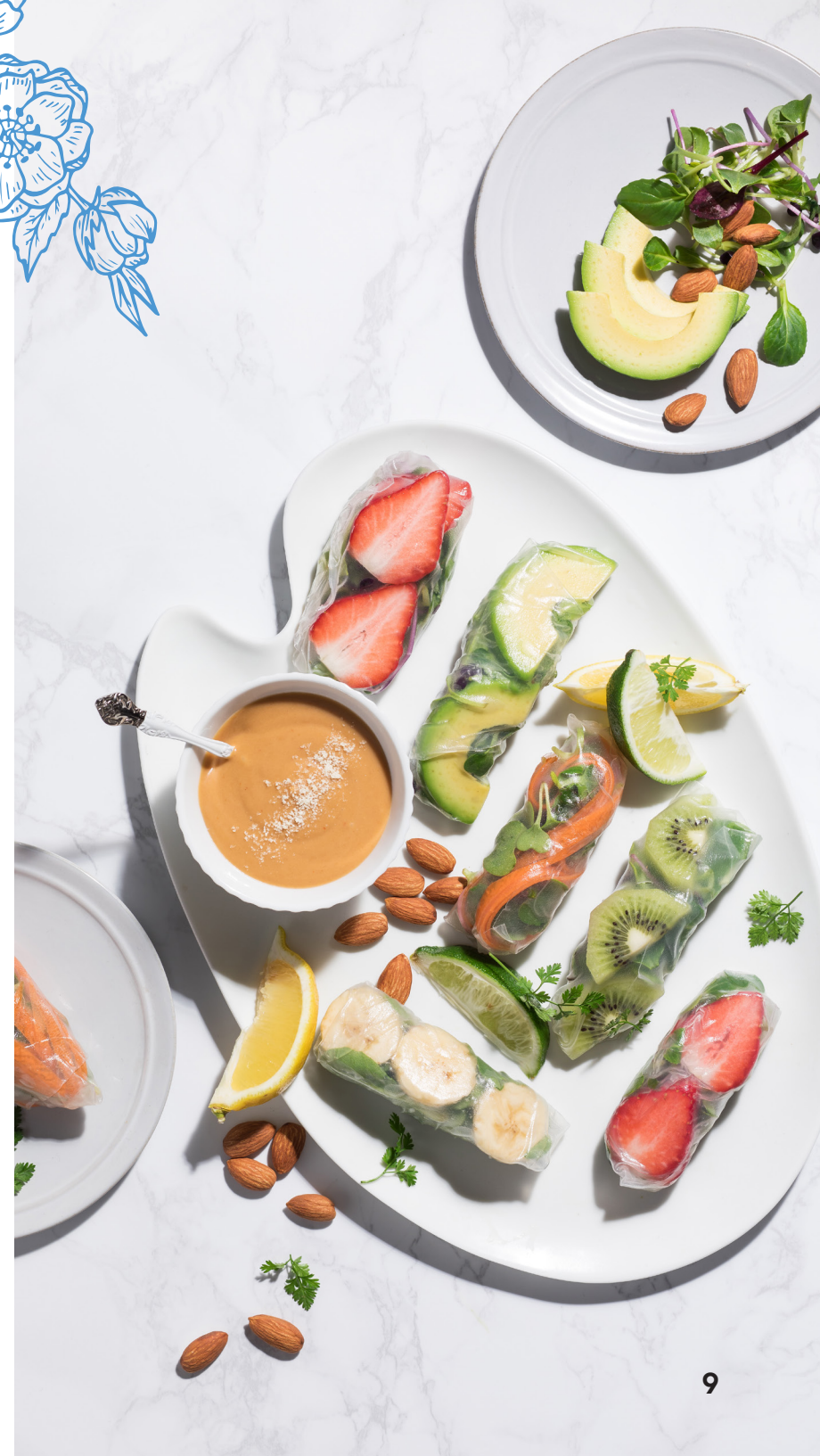
Almonds can support manufacturers looking to develop products with more innovative and niche flavours as they are a great flavour carrier and pair well with so many sweet and savoury ingredients.

Additionally, almonds' extensive portfolio of formats – including whole, sliced, slivered, flour, paste, butter, oil and milk – means there are endless possibilities for creating new and exciting plant-based products. For example, defatted almond flour, which is higher in protein than regular almond flour or meal, has an extra-fine texture and clean taste which allows other ingredients to shine through when used in product formulation so flavours can really stand out.



These plant-based Korean-inspired dishes are growing in interest.

- ◆ Kimchi fried rice
- ◆ Summer rolls





Glazed Tofu Nourish Bowl



Almonds pair well with other plant proteins like legumes and lentils.

Ingredients

For the tofu

- ◆ 280g block tofu
- ◆ 2 tbsp vegetable oil
- ◆ 1 tbsp gochujang
- ◆ 2 tbsp soy sauce
- ◆ 1 tbsp maple
- ◆ 1 tbsp sesame seeds

For the pickled red cabbage

- ◆ 2 tbsp rice vinegar
- ◆ 1 lemon
- ◆ 1 tbsp caster sugar
- ◆ ½ tbsp salt
- ◆ ¼ red cabbage

For the rice

- ◆ 2 portions of rice

For the almond sauce

- ◆ 100g almonds
- ◆ 1 garlic clove
- ◆ 10g fresh ginger
- ◆ 1.5 tbsp soy sauce
- ◆ 1 tbsp maple syrup
- ◆ 100ml almond milk
- ◆ 1 lime

For the veggies

- ◆ 150g mangetout
- ◆ 40g frozen edamame beans

To serve

- ◆ Kimchi

Method

Step 1: Roast the almonds

- ◆ Pour the almonds onto a baking tray and roast in the oven for about 8 minutes until golden and fragrant. Remove from the oven and allow to cool.

Step 2: Make the quick pickled red cabbage

- ◆ In the container that you will store your cabbage in, add the rice vinegar, juice from the lemon, sugar and salt and stir to dissolve.
- ◆ Finely shred the cabbage, put it in a sieve and set over a sink. Pour over water from a freshly boiled kettle and let it drain away. This will soften the cabbage.
- ◆ Add the cabbage into the liquid, cover and shake well. Set aside for at least an hour. Any leftover cabbage will keep well in the fridge for a month.

Step 3: Cook the rice

- ◆ Cook rice as per instructions on the packet.

Step 4: Make the almond sauce

- ◆ Peel the skin from the garlic and ginger and place them in a blender along with the roasted almonds, soy sauce, maple syrup, almond milk and the juice from a lime. Blend until smooth and creamy, adding a dash more almond milk if needed. Set aside.

Step 5: Make the tofu

- ◆ Cut the tofu into even sized pieces.
- ◆ Heat 2 tbsp oil in a large pan over medium to high heat. Add the tofu to the pan and cook on each side until golden brown - you may need to do this in batches.
- ◆ Whilst the tofu is cooking, combine the gochujang, soy sauce and maple syrup in a small bowl. Stir well to combine.
- ◆ Once the tofu is evenly golden, turn the heat to low. Fold through the gochujang mixture and let it cook until nice and sticky, about 4 minutes. Sprinkle with sesame seeds and keep warm until ready to serve.

Step 6: Cook the vegetables

- ◆ Bring a pan of salted water to the boil over high heat. Add the mangetout and frozen edamame beans and cook for 2 minutes until just tender, then drain.

Step 7: Assemble

- ◆ Spoon the rice into two bowls. Top with the glazed tofu, edamame, mangetout, pickled cabbage, kimchi and a generous drizzle of the almond sauce.



"We love adding almond milk to sauces to add creaminess!"

FORMS USED:

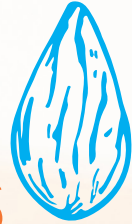


Whole almonds



Almond milk

Trending Concepts



Spicy Almond Crunch Puffs

- By Chef Henry Hill

Serves: 1oz

Ingredients

Almond Crunch Puffs

- ◆ 25g (41.19%) potato starch, Penpure 85D
- ◆ .2g (.33%) whole almonds
- ◆ 20g (32.95%) water
- ◆ 3g (4.12%) salt
- ◆ 10g (16.47%) corn starch

Jalapeno Seasoning Mix

(3g per serving of SpicyAlmond Crunch Puffs)

- ◆ 10g (38.39%) freeze dried red onion
- ◆ 3g (11.52%) freeze dried red jalapeno
- ◆ 1g (3.84%) freeze dried lemon peel
- ◆ 1g (3.84%) freeze dried tomato
- ◆ 1g (3.84%) freeze dried red chili
- ◆ .05g (.19%) garlic powder
- ◆ 1g (3.84%) cumin powder
- ◆ 5g (19.19%) sea salt
- ◆ 3g (11.52%) tapioca maltodextrin

Method

1. Adjust benchtop panning machine to 100RPM with almonds inside.
2. Spray almonds with water to create a slurry and alternate dusting with potato starch until a crust is formed.
3. Transfer to a pot of oil heated to 375F/190C, and fry until crisp. Reserve Almond Crunch Puffs in a bowl.
4. In a blender, combine Jalapeno Seasoning Mix dry ingredients and blend into a fine dust.
5. Toss Almond Crunch Puffs with Jalapeno Seasoning Mix.

FORMS USED:



Whole almonds



About CHEF HENRY HILL

Chef Henry Hill is a Michelin star chef turned product developer with a multidisciplinary skillset informed by his deep understanding of everything from culinary excellence to manufacturing and more. He consults clients from Fortune 500 companies to startup entrepreneurs on culinary strategy, product development, innovation and commercialisation.



"Crunchy" is a top consumer texture demand for snacks, with conversations about crunchy snacks increasing by 18% YOY



Whipped Coffee with Almond Milk & Almond Butter – By Chef Henry Hill

Serves: 90.4g batch of Whipped Coffee

Ingredients

- ◆ 180g (42.85%) almond milk
- ◆ 4g (1.02%) gelatin
- ◆ 52g (12.26%) cold brew concentrate
- ◆ 66g (15.65%) almond butter
- ◆ 19g (4.5%) MCT oil
- ◆ .5g (.12%) soy lecithin powder
- ◆ 2g (.48%) xanthan gum
- ◆ 3g (.60%) milk type flavour
- ◆ 20g (4.76%) cane syrup
- ◆ 3g (.62%) mono & diglycerides
- ◆ 62g (14.76%) confectioner's sugar
- ◆ 10g (2.38%) instant coffee

Method

1. In a pot, combine almond milk and gelatin. Heat to 185F/85C, constantly agitating. Once the gelatin has dissolved, add cane syrup and stir until dissolved.
2. Combine mono & diglycerides with MCT oil, almond butter, and soy lecithin. Stir until combined and reserve until needed.
3. In a blender, add the almond milk and gelatin mixture with cold brew concentrate, instant coffee powder, xanthan gum and milk type flavour. Blend until combined.
4. In the same blender, gradually add the almond butter and MCT oil mixture until ingredients are combined smoothly.
5. Transfer mixture to an ISI canister and chill the base until needed.
6. Once ready for use, charge ISI canister and shake well before dispensing.



Indulgent is one of the top consumer demands for coffee, with social conversations growing by 42% YOY.

FORMS USED:



Almond Milk



Almond butter



Almond Forms



Almond Forms for Every Function



Whole almonds

With whole almonds the options are limitless. Add natural or roasted almonds to snack mixes, coat or enrobe them in on-trend flavours, or use whole almonds for added crunch and visual appeal in snack clusters, confectionery, or as an inclusion in bars.



Almond meal or flour

Both made from ground almonds, almond flour is typically made from blanched almonds and is ground more finely than almond meal. The coarser almond meal will give your product a more pronounced mouthfeel and texture, whereas almond flour has a lighter texture.

Use almond meal as a coating for snack bites or to add crunch and texture to crusts, bars, and baked goods. Almond flour is a wholesome alternative to other flours and is suited for gluten-free baking, as a sauce thickener or a key ingredient in crackers, breads and cereals.



Defatted almond flour

Defatted almond flour is simply finely ground almond flour from which a percentage of the oil has been removed. Depending on the amount removed, this process can decrease the amount of calories and fat per serving.

This new form has an extra-fine texture and clean taste that allows for more versatility and less masking agents—letting other ingredients shine and contributing to a clean and gluten-free label. Use this flour to add density to bars, as a substitute in crusts, or as a binder.



Almond butter

Almond butter can work as a standalone spread or dip, as a layer, drizzle, or binder in bars, cookies, and bakery items, a thickener in beverages/smoothies and a filling or coating in confectionery products. Almond butter lends a clean label to formulations suited for all times of day.



Almond milk

Lactose-free, dairy-free, and free-from cholesterol and saturated fat, almond milk can be sweetened, unsweetened, fortified or blended with other dairy alternatives. Almond milk is extremely versatile for carrying flavours in bottled coffee drinks and smoothies, and an ideal ingredient in cross-category beverages, like a cold-pressed juice or coffee, dips and spreads. Almond milk is a great way to add creaminess to sauces, icings, coatings, overnight oats, packaged soups and stews.



Slices or flakes

Almond slices or flakes are just that – blanched or natural almonds that have been cut along their diameter creating larger pieces. This form is a great alternative to whole almonds when you're looking for an inclusion in a softer, baked good or snack bar, but still want an added crunch. Almond slices also offer visual appeal that lends a premium look to products across categories.



Slivers of halves

Utilise almond slivers or halves as an inclusion or topping in bars, bakery and confectionery products to add the crunch consumers crave. Almond slivers are also the perfect addition to salad toppers, trail mixes, and granola.



Diced or chopped

Diced or chopped almonds can bring texture to just about anything. Use this form in sweeter applications like a coating for ice cream bars, a filling for bakery and confectionery products or as a topping or inclusion with chocolate products.



Almond paste

Almond paste has been compared to marzipan but it's actually quite different. Almond paste is less sweet, coarser and used in different applications than marzipan. Almond paste is typically used as a filling or binder in baked bars, pies and cakes to help create a chewier texture.



Almond oil

Almond oil lends a uniquely nutty, toasty flavour to just about anything – from cakes, cookies and muffins to chips, popcorn snacks and breads. Add the rich, amaretto-like flavour of almonds to salad dressings or sauces using almond oil. Refined types of almond oil are best suited for frying or oven baking, whereas cold-pressed gives strong flavour without being heated.

About

The Almond Board of California promotes natural, wholesome and quality almonds through leadership in strategic market development, innovative research, and accelerated adoption of industry best practices on behalf of the more than 7,600 almond farmers and processors in California, most of whom are multi-generational family operations. Established in 1950 and based in Modesto, California, the Almond Board of California is a non-profit organization that administers a grower-enacted Federal Marketing Order under the supervision of the United States Department of Agriculture. For more information on the Almond Board of California or almonds, visit [Almonds.com](https://www.almonds.com).

For more food professional resources, visit:

<https://www.almonds.com/tools-and-resources/food-professional-tools>

Follow us!



A grid of 24 almonds arranged in 4 rows and 6 columns on a solid orange background. The almonds are light brown with a textured surface. In the center of the grid is the California Almonds logo.

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Almond Board of California