CRUNCH ON THIS: California almonds turn chocolate Into a snacking standout

A WHITE PAPER FOR FOOD INDUSTRY PROFESSIONALS AND MANUFACTURERS



Opportunities in the world of chocolate continue to grow as consumers seek out healthier indulgence. This white paper summarizes two studies positioning almonds and chocolate as a winning combination delivering experiences that satisfy consumer demand.

Consumers' changing consumption patterns to more bite-sized or on-the-go snacking has, for many, replaced sitting down to traditional meals. This shift has opened new opportunities in snacking, particularly for ingredients like chocolate and almonds.

Once a special treat reserved for holidays and dessert, chocolate is now a favorite snack. As many as four out of five consumers choose chocolate as either their number one or one of their favorite snacks, and 84 percent usually or even primarily enjoy it as a standalone snack.1

This change in consumer snacking preferences is leading manufacturers to seek opportunities for chocolate snack development that can span all-day snack times. For this challenge, product developers need to look no further than California almonds - an ingredient unique in its ability to enhance the "snackability" of a product, particularly chocolate, by lending the healthy halo and nutritional profile almonds are well-known for, with their trademark crunch and nutty flavor.

CHOCOLATE AND SNACKING: ALMONDS HIT THE SWEET – AND SAVORY – SPOTS

In 2018, more than one third of U.S. consumers are eating almonds as a snack compared to one-year ago², and, since 2008, almonds have held the top spot among ingredients that global consumers include in their "ideal" chocolate product.1

> California almonds can help manufacturers looking to develop products that deliver on what consumers are looking for:

CHOCOLATE CONSUMPTION STILL TICKING UPWARD

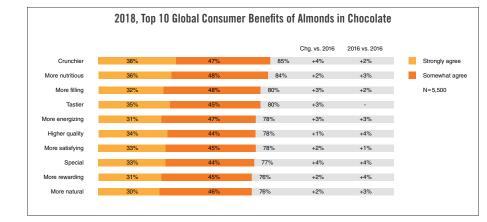
Global chocolate consumption increased slightly in 2018 from 2016, with a +2% increase in consumers indicating they are eating more chocolate than two years ago. Asian markets account for the increases. while European nations and the United States lagged behind.¹

- Surveys show that global consumers continue to prefer chocolate with nuts over chocolate without in nearly all countries surveyed.1
- In 2008, 42 percent of global consumers are choosing almonds above not just all other nuts, but above all other inclusions, as well.1
- Almonds outperform all other nuts in delivering the most important attributes that consumers look for in chocolate products, including "natural," "nutrition" and "crunch."1
- Consumers choose almonds as a snack because they are "natural" (58%) and "nutritious" (51%).²

Almonds' strength with chocolate stands out in the "ideal" chocolate bar exercise that tasked global consumers with developing their own chocolate product. According to the study, consumers who include almonds in their "ideal" bars rate those bars highest for being tastier, higher quality, more energizing, special and more premium.¹

And when it comes to compatibility across chocolate types-milk, dark and white-global consumers consider almonds the nut that makes the best fit for all.¹

While consumers "ideal" chocolate concept is one consideration; how much they actually spend on chocolate products is another. Yet here, too, chocolate launches with almonds come out ahead, commanding a premium price-the highest average price in U.S. dollars per kilogram-and one that rises each year.³







ALMOND FORMS FIT FUNCTIONS

California almonds are alone among nuts in offering formulators a wealth of inclusion formats. This includes not only standards like whole almondsboth natural and blanched—and halved, chopped, diced, slivered and sliced options, but also extends to trending ingredients like almond butter and almond milk. Each form offers a unique texture and function that can provide inspiration for creative chocolate development.

KNOW WHAT YOU GROW: ALMONDS BRING A SUSTAINABLE STORY TO CHOCOLATE

Consumers are inclined to look for chocolate products made in a sustainable manner. Almonds' story as a sustainable ingredient, cultivated by family farmers in California with generations of investment in their crop, will help support the chocolate industry's efforts towards sustainable and responsible product development. Over the past 20 years, farmers have reduced the amount of water to grow a pound of almonds by 33 percent⁴ and stand committed to water sustainability with the recent announcement of the Almond Orchard 2025 Goals. These commitments build on decades of previous achievements and work towards growing almonds in better, safer and healthier ways, while protecting local communities by focusing on four key areas of almond production: water efficiency, zero waste, air quality and pest management.





In fact, for the first time since 2008, almond butter appeared among the top-five fillings/ flavors that global consumers—particularly those in the rising markets of India and China-included in their "ideal" chocolate products. Across all ingredients at their disposal, olobal consumers chose almond butter as a top choice for dark and white chocolate at rates of 18 and 19 percent, respectively.1

This suggests that almond butter could continue to see increased acceptance and use by chocolate consumers. Almond butter's creamy, indulgent texture can be leveraged as a vehicle for bringing both crave-able and plant-based bona fides to chocolate snacks.

The fact that almond butter's mildly sweet taste could help manufacturers use less sugar while maintaining sensory appeal adds to its benefits as an inclusion in chocolate. And as for almond milk, this wildly popular dairy alternative can see additional uses in a new generation of plant-based "milk" chocolates.

Now that we know what consumers are looking for in their snacks - chocolate products included - what can we conclude about what drives them to choose chocolate as a snack and how almonds enhance chocolate products? Some clear motivators emerge:

SEEKING INDULGENCE:



Source: Global Chocolate Study. Sterling Rice Group. 2018.



MOTIVATING FACTORS FOR CHOCOLATE SNACKING

No matter the daypart, consumers seek an indulgent experience when craving chocolate. While inclinations toward satiety and energy fuel chocolate snacking early in the day, chocolate's appeal as a vehicle for relaxation, entertainment and reward increases as the day draws to a close.⁵ The comforting attributes of chocolate nod to opportunities to push consumers' pleasure points by tapping into a broader definition of "indulgence," with taste and texture playing a big part - and California almonds hitting on both.





TALKING TEXTURE:

Consumers' top three texture choices in chocolate are "smooth", "crunchy" and "creamy." A versatile ingredient like almonds can hit on all three, from smooth almond butter to crunchy roasted almonds. "Crunchy" claims are growing fastest in new chocolate launches worldwide⁵ and that growth is proof that textural differentiation can bolster a chocolate snack's indulgence factor-and the addition of nuts like almonds, cocoa nibs and fruit helps bolster in-demand chocolate textures.

DEMANDING (GREAT) TASTE:

Consumers' bottom line when choosing a chocolate snack is simple-taste tops all other considerations. With 80 percent of consumers finding chocolate with almonds tastier5, chocolate confectioners have determined that giving consumers a range of tastes is key to keeping them coming back. That's why chocolate flavor profiles are venturing outside the classics to include more unusual and indulgent themes and blends.

NUTRITIONAL VALUE:

Consider that 68 percent of consumers feel that chocolate with almonds is more nutritious than chocolate made with other nuts —a three percent increase from 2016.1 With consumers realizing that their snacking choices - even chocolate - must fit into a healthful diet, manufactures continue to improve their products health halos with ingredients like almonds, seeds and dried fruit - inclusions that also bring indulgence and texture.

The top-three textural choices in chocolate are:

IN CHOCOLATE SNACKS, TEXTURE = INDULGENCE









ACCENTUATE THE POSITIVE: CALIFORNIA ALMONDS' HEALTHY HALO

The plant-based trend that animates so much product development today-confectionery development included-stems largely from consumers' wish to eat more healthfully. And that desire is particularly prevalent in snacking decisions as well.

ALMOND NUTRITION IS BAR NONE

Almonds' nutritional profile allows consumers to feel good about choosing almond-packed chocolate as a snack. One ounce of almonds supplies four grams of satiating fiber, good monounsaturated fat* and six grams of plant-based protein.

Consider, as well, that chocolate innovation continues to follow a holistic "better-for-you" approach that's landed "better-for-you" claims, including "health", "clean label" and "free from", on 30.5 percent of all new global chocolate launches in 2017.³ In all their forms, California almonds fit into the holistic "better-for-you" claims as they are a natural ingredient produced using sustainable farming practices, backed by over 40 years of research conducted by the Almond Board of California and are nutritional powerhouses offering protein (6g), fiber (4g) and calcium (75mg) in every serving.

Finally, when you consider that two in five U.S. consumers have increased their consumption of "healthy foods," and that 20 percent are influenced by on-pack claims like "made with real ingredients" when purchasing food or beverage products, the case for almonds grows even stronger.6

66 Consumers are looking for a unique experience that's novel and varied, and that delivers both health and indulgence. Chocolate developers can give them this by focusing on premium goodness, clean ingredients and short ingredient statements—and almond inclusions fit the bill in each case. And even though consumers value plain chocolate, nut inclusions—almonds especially—will remain relevant, as they provide a solid base for designing better-for-you chocolate snacking options.

Lu Ann Williams, Director of Innovation, Innova Market Research

ALMONDS AND CHOCOLATE CONCEPTS FOR INSPIRATION



SMOKED MAPLE ALMOND ROCHER by Chef Wendy Sherwood, Owner and Proprietor of La Foret Chocolate & Confections.

Clusters of slivered almonds candied with maple sugar and blended with hickorysmoked milk chocolate and candied orange peel.



SEEDED ALMOND NOUGATINE by Chef Wendy Sherwood, Owner and Proprietor of La Foret Chocolate & Confections.

Sliced almonds, sesame, poppy and chia seeds enrobed in dark chocolate.



DARK CHOCOLATE ALMOND BARK WITH PUFFED QUINOA, DRIED CHERRIES AND **MERLOT SEA SALT**

by Chef Richard Cusick, Owner and Proprietor of Evolution Artisan Confections

An indulgent snack featuring sliced, toasted almonds and puffed guinoa for light texture and dried cherries for improved health halo.

REFERENCES

- Global Chocolate Study, Sterling Rice Group, 2018.
 2018 United Statues AAU: User Group Analysis, Almond Board of California, December 2018.
- 3. Essential Clean Label Chocolate Innovation with California Almonds, Innova Market Insights, 2018.
- 4. University of California, 2010. Food and Agriculture Organization of the United Nations, 2012. Almond Board of California, 1990-94, 2000-14
- 5. Innova Market Insights, Global Chocolate Report, July 2018.
- 6. Innova Market Insights Consumer Survey, 2017.

*Good news about fat. U.S. Dietary Guidelines recommend that the majority of your fat intake be unsaturated. One serving of almonds (28g) has 13g of unsaturated fat and only 1g of saturated fat.

** California Almond Sustainability Definition: Sustainable almond farming utilizes production practices that are economically viable and are based upon scientific research, common sense and a respect for the environment, neighbors and employees. The result if a plentiful, nutritious, safe food product.

