



CALIFORNIA DATES

Health & Nutrition Guide



CaliforniaDates.com

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CALIFORNIA DATES

Health & Nutrition Guide at a Glance

Introducing the Health and Nutrition Guide from the California Date Commission – a definitive, research-backed resource for individuals and health and nutrition professionals.

This comprehensive guide highlights the nutritional benefits of California Dates, empowering your journey toward a healthier lifestyle.

This guide provides a detailed nutritional breakdown, showcasing California Dates as a robust source of energy, fiber, and essential nutrients.

Fresh Fruit or Dried Fruit? Finally, the Definitive Answer.

California Dates are nature's only NATURALLY DRY FRESH FRUIT. They are a low-moisture whole fruit with less than 25 percent moisture. The moisture content is the main difference in how dry the dates will be when harvested, which changes throughout the ripening stages.

Fresh California Dates do not undergo a drying process after harvesting. They are washed, sorted, packaged, and shipped, and can be found in the produce aisles of your favorite grocery stores.

There are also dried dates - dates that have been dehydrated after harvesting. With the moisture removed, these dates have a longer shelf life and are often found in the baking aisle of your favorite grocery store.

An All-Natural Healthy Sweetness

More than just a delicious standalone snack, this versatile fruit provides natural sweetness and enhances the flavor in all your favorite dishes without the addition of refined sugar or unhealthy sugar substitutes.

Ounce for ounce, California Dates have lower calories than sugar, more nutrients than honey or maple syrup, and have a low Glycemic Index of 42 per 100 grams.

Whether you're in search of a heart-healthy snack, a healthy sweet treat, an energy booster before, during, or after a workout, or a nutrient-rich addition to your daily meal plan, make California Dates your ultimate go-to.

Learn more in this nutritional guide, and visit californiadates.com for all the wonderful ways to enjoy California Dates while focusing on your health and wellness.



CALIFORNIA DATES

Nutrition facts

MEDJOO VARIETY DATE. ONE JUMBO WEIGHS (20G) EACH, 55 CALORIES PER DATE

Nutrition Facts

Serving Size: (40g)

2 Jumbo Dates / 6 Medium Dates

Amount per serving

Calories 110

% of Daily Value *

Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 30mg	11%
Dietary Fiber 3g	11%
Total Sugars 25g	
Includes 0g added Sugars	0%
Protein 1g	
<hr/>	
Vitamin D 0mcg	0%
Calcium 19mg	2%
Iron 0.4mg	2%
Potassium 262mg	6%
Thiamin 1mg	2%
Riboflavin 0.04mg	4%
Niacin 1mg	4%
Vitamin B 0.1 mg	4%
Biotin 3mcg	8%
Pantothenic acid 0.3mg	6%
Magnesium 20mg	4%
Zinc 0.12mg	2%
Copper 0.1mg	10%
Manganese 0.1mg	4%

* The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet.

DEGLET NOOR VARIETY DATE ONE MEDIUM WEIGHS (6.5G) EACH, 18 CALORIES PER DATE

GOOD SOURCE OF FIBER
ALL NATURAL SUGARS
NO ADDED SUGARS

6 B VITAMINS
1. THIAMIN
2. RIBOFLAVIN
3. NIACIN
4. VITAMIN B6
5. BIOTIN
6. PANTOTHENIC ACID

7 MINERALS
1. CALCIUM
2. IRON
3. POTASSIUM

GOOD SOURCE OF COPPER

4. MAGNESIUM
5. ZINC
6. COPPER
7. MANGANESE

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Magelletta, R. L., DiCataldo, S. N., Liu, D., Li, A. L., Borwankar, R. P., and Martini, M. C. – 2010 Cereal Chemistry Journal. 87 (4):363-369

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Unpublished laboratory results, Complete Phytochemical Solutions LLC



CALIFORNIA DATES

The California Difference



California Dates are grown in the optimal conditions of the sun-drenched Coachella Valley, benefiting from the region's unique climate and soil which contribute to their exceptional taste and texture.

Rigorous quality control measures ensure that each California Date meets the highest standards, guaranteeing a premium and consistent product.

By choosing California Dates, you not only indulge in a superior culinary experience but also support local U.S. farmers and contribute to the national economy.

Embracing sustainability, California Dates aligns with the state's commitment to eco-friendly agriculture. For more details on their sustainable practices, visit californiadates.com/sustainability



CALIFORNIA DATES

Nature's Nutrient-Packed Power Fruit

WHO SHOULD INCORPORATE CALIFORNIA DATES INTO THEIR DAILY MEAL PLAN?



Health-Conscious Consumers
Consumers who are looking to make healthier dietary choices or exploring new diets and eating styles.



The Home Cook/ Foodie
A broad range of consumers (22-65+) who prefer to cook at home, are engaged with pop culture and influencers, and are looking to broaden their culinary choices and skills.



Self-Help Enthusiasts
Consumers who have health issues, dietary restrictions or requirements who research dietary options for their particular needs or preferences



Parents
Health-conscious parents looking for healthy snacks and meal options for their children, whether at home, at school, as part of a sports team, or on the go.



Athletes/Fitness Enthusiasts
Fitness Enthusiasts, amateur, and professional athletes looking for healthy foods that provide both quick and sustained energy before, during and after activity.

California Dates Are Natural, Gluten-Free, Non-Gmo, Vegan, And Part Of These Popular Diet Plans:

- DASH
- MEDITERRANEAN
- PALEO
- PLANT-BASED
- WHOLE 30





CALIFORNIA DATES

Versatility



Fresh California Dates make a delicious snack on their own, can be blended into a smoothie or shake, used as a salad topper, in baked goods and as a natural sweetener for dressings, sauces and in sweet and savory dishes.

California Dates can be made into various products including date sugar, date syrup, date paste, and date pieces. When buying ready-to-use date products, make sure they are made with dates from California.



FOR GREAT RECIPES FEATURING CALIFORNIA DATES VISIT [CALIFORNIADATES.COM](https://www.californiadates.com)

CALIFORNIA DATES

Varieties, Characteristics, Texture & Tasting Notes

Like fine California wines, California Dates each have their own characteristics, textures, and tasting notes. While there are many varieties of dates grown in the Coachella Valley (California), these are a few of the most popular varieties



MEDJOOOL

Tasting Notes: Sweet, creamy and rich with caramel notes

Texture: Creamy and chewy with a firm texture

Ways to Enjoy:

- Whole as delicious, nutritious snack
- In sweet and savory recipes, raw, baked or cooked



DEGLET NOOR

Tasting Notes: Less complex than Medjool dates, with a delicate sweetness

Texture: Firm and dry, very versatile

Ways to Enjoy:

- Whole as delicious, nutritious snack
- In sweet and savory recipes, Ideal for cooking, baking, date syrup, date sugars and pastes



BROWN BARHI

Tasting Notes: Sweet with creamy honey, caramel and butterscotch flavors

Texture: Soft, creamy texture

Ways to Enjoy:

- Delicious when eaten on their own, in fresh fruit or vegetable salads, or in desserts such as cobblers



HALAWI

Tasting Notes: Sweet with a caramel candy flavor.

Texture: Firm and chewy, with soft flesh

Ways to Enjoy:

- A delicious snack on their own, in a fruit or vegetable salad, or dipped in yogurt, cream cheese or sour cream
- Adds an excellent flavor in cooked or baked sweet and savoury recipes



KHADRAWY

Tasting Notes: Mild and sweet with a smooth, buttery after taste. Honey-like sweetness and a fig-like and caramel-like flavor

Texture: Exceptionally soft and moist with a smooth and creamy texture

Ways to Enjoy:

- A perfect snacking date or blended into shakes and smoothies for added natural sweetness



YELLOW BARHI

Tasting Notes: Sweet taste, often compared to apples, coconut and sugarcane, and its similarity to caramel and butterscotch flavors

Texture: Crispy with a thick, soft, smooth, and translucent flesh and a creamy interior

Ways to Enjoy:

- As a fresh snack, stuffed with cheese or nuts, as a salad topper, blended into smoothies, or in baked goods, sweet and savory dishes.



ZAHIDI

Tasting Notes: A mild sweetness and subtle nutty flavor

Texture: Firm, dry, and crunchy texture

Ways to Enjoy:

- As a fresh snack, in baked goods, chopped into cereals, as a topping for yogurt.

FOR MORE CALIFORNIA DATE VARIETIES VISIT CALIFORNIADATES.COM



CALIFORNIA DATES

Health Benefits

HEART HEALTH • DIABETES MANAGEMENT • SPORTS & FITNESS BENEFITS • PEDIATRIC HEALTH BENEFITS



CALIFORNIA DATES

Heart Health Benefits

CALIFORNIA DATES: THE HEART HEALTHY CHOICE

Managing A Wholesome Diet

California Dates are a heart-healthy whole fruit. The American Heart Association (AHA) recommends Americans reduce added sugars in their daily diet. Americans need to double fruit consumption and cut back on added sugars, as sweets can crowd out fruits in their diet.

- California Dates are a part of the American Heart Association Heart Check Mark Program encouraging a heart-healthy diet.
- Dates are a good source of fiber and are full of nutrients that processed sugars lack.
- Date antioxidants lower triglycerides (fats in blood) circulation to help maintain heart-healthy levels.
- Date fibers slow the absorption of sugars.
- Date antioxidants reduce the oxidation of LDL cholesterol.



The California Date Difference

Added sugars form free radicals in the blood that oxidize LDL cholesterol, while date antioxidants reduce the oxidation of LDL cholesterol. Added sugars can raise triglyceride levels and date antioxidants lower them. Antioxidants in dates make the difference, as date sugars do not turn into fat.

- Dates protect arteries
- Date polyphenols quench free radicals
- Dates reduce oxidation of LDL cholesterol
- Dates spare the natural antioxidants
- Dates correct the balance of oxidation
- Dates are a whole fruit with high levels of polyphenol
- A clinical trial showed 100 grams of Dates a day for 30 days reduced triglycerides

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Johnson RK, Appel LJ, Brands M, et al. Dietary sugars intake and cardiovascular health: a scientific statement from the American Heart Association. *Circulation*. 2009;120:1011-20 / Vinson JA, Zubik L, Bose P, et al *American College Nutrition* 24 (1): pp 44-50 (2005) / Wasseem R, Aviram M, et al *Journal of Agriculture. Food Chemistry*, 2009, 57 (17), pp 8010-8017 / Alfaro-Viquez E, Roling BF, Krueger CG, Rainey CJ, Reed JD, Ricketts M-L (2018) An extract from Date palm fruit (*Phoenix dactylifera*) acts as a co-agonist ligand for the nuclear receptor FXR and differently modulates FXR target-gene expression in vitro. *PLoS ONE* 13 (1): e0190210, <https://doi.org/10.1371/journal.pone.0190210>



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Diabetes Management



California Dates are naturally sweet with no added sugar. They contain natural compounds (fiber, sorbitol, fructose and water) that hinder rapid sugar absorption and lower the glycemic index (GI), making them a suitable choice for individuals conscious of their glycemic index.

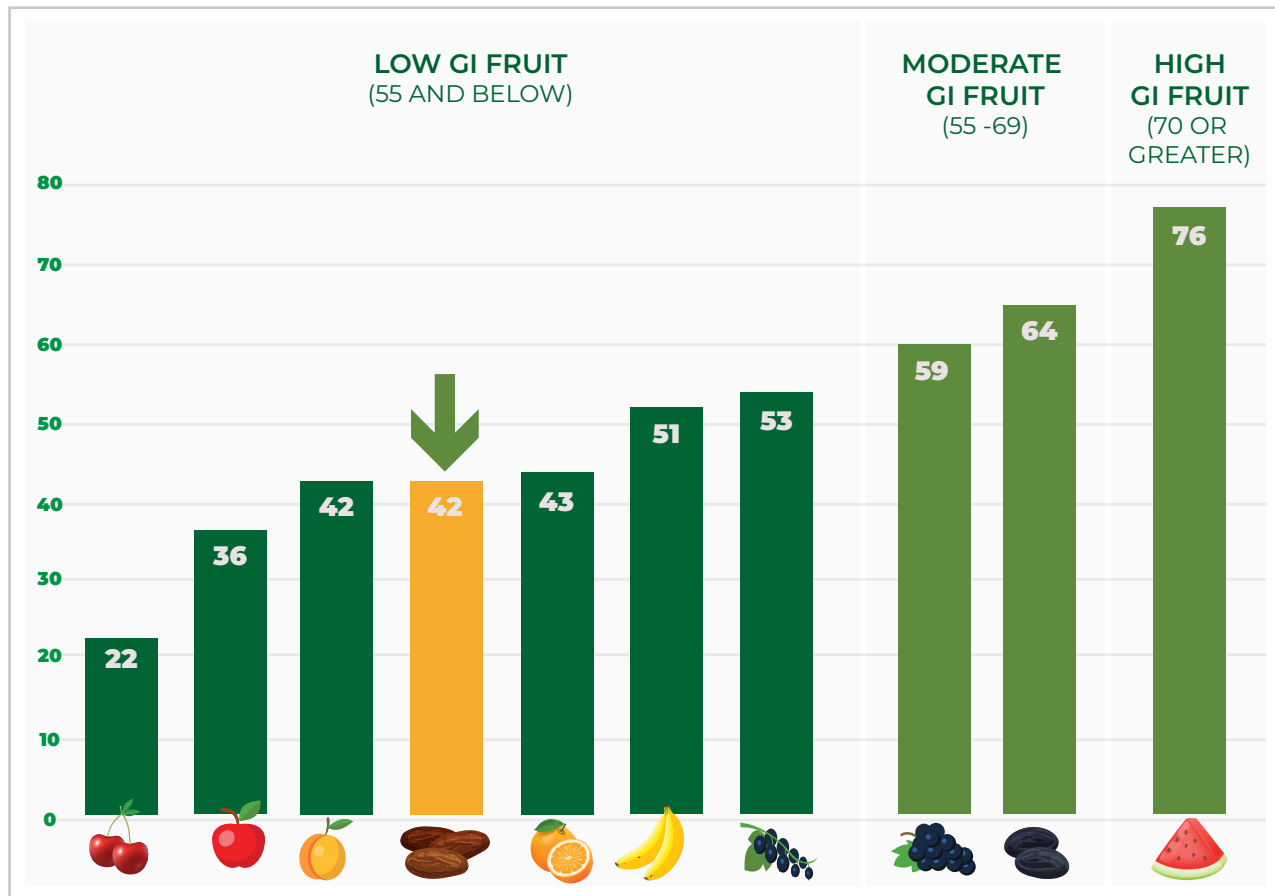
The fiber contained in dates slow down sugar absorption. California Dates are a good source of both soluble and insoluble fiber. The soluble fiber can help slow down the digestion and absorption of sugars, which contributes to a slower and more gradual rise in blood sugar levels

California Dates Have A Low Glycemic Index (GI) Of 42 Per 100 Grams.

Eaten in moderation, dates can be a part of a healthy, balanced diet plan for individuals managing diabetes, pre-diabetes, or those aiming to regulate blood sugar levels.

**Always consult with your healthcare provider, dietitian, or nutritionist before making any dietary changes.*

GLYCEMIC INDEX



CALIFORNIA DATES

Sports and Fitness Benefits

California Dates are a natural and healthy energy source, offering a quick and sustained boost without the drawbacks of refined sugars or the dreaded crash that often come with sugary energy drinks.

Packed with natural sugars like glucose, fructose, and sucrose, dates provide a rapid energy release while their fiber content ensures a steady and lasting supply. This unique combination not only provides immediate energy needs but also supports sustained energy, making them an ideal choice for a pre-workout snack or a pick-me-up during a busy day.

Furthermore, the vitamins and minerals found in dates, such as potassium and magnesium, contribute to overall well-being, making them a nutrient-dense option for those seeking a wholesome and energizing food source.

Dates are the natural fuel for action

The body needs to replace carbohydrates for the muscles often because muscles are limited in the amount they can hold.

There are two main fuels for the body: fat and carbohydrates. The body shifts back and forth between them depending on the amount of activity. When at rest and sitting, the body mostly burns fat, but when active the body burns more carbohydrates. This is why many endurance athletes eat dates before and during events.

When running, hiking, biking or simply out in activity all day make California Dates your go to energy snack.



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Pediatric Health Benefits

Helping Children Stay Healthy

Kids need to eat 5 servings of fruits and vegetables a day, but with small appetites, it is sometimes difficult to achieve. Starting with breakfast and including fruits in each meal and snack time is important. Kids need fiber to keep things moving through the digestive tract which helps prevent constipation and keep them feeling full.

Dates Are A Kid-Friendly Whole Fruit

To determine the amount of fiber intake for children, add 5 to their age. Dates can provide a concentrated source of fiber as there are 3 grams in each 40-gram serving. Replacing added sugars with dates at every meal can help. Dates are filled with nutrients and fibers. Start with breakfast using chopped dates to sweeten cereals or oatmeal.

AGE IN YEARS	DAILY GRAMS OF FIBER NEEDED
5	10 gm
6	11 gm
7	12 gm
8	13 gm
9	14 gm
10	15 gm
11	16 gm
12	17 gm
13-19	Adult recommendation of 28 grams per day





CALIFORNIA DATES
VS.

Refined Sugar & Other Sweeteners

CALORIES IN DATES VS. SUGAR • DATES VS. HONEY + MAPLE SYRUP • DATES VS. ARTIFICIAL SWEETENERS



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A Healthier Alternative to Refined Sugar

California Dates offer a versatile and wholesome alternative to refined sugars, providing an array of options to sweeten your recipes while maintaining a high nutritional value. Whether you're looking to enhance the flavor of your smoothies, energy bars, salads, sides, main courses, or desserts, California Dates have you covered. Here's why they're an excellent choice:

Calories in Dates vs. Sugar

When considering calorie content, dates emerge as a favorable choice compared to processed sugar. A 40-gram portion of granulated sugar (equivalent to about $3\frac{1}{4}$ tablespoons or $\frac{1}{3}$ cup) contains approximately 160 calories, while the same weight of dates (roughly 2 large dates) provides around 110 calories.

While dates are not considered a low-calorie food, they represent a healthier alternative to sugar, particularly for individuals mindful of calorie intake. (Foods defined as low-calorie have less than 45 calories per serving).

SUGAR SWAP



Cup for cup, California Dates have fewer calories than refined, processed sugar.

Sugar Comparison by Volume

$\frac{1}{4}$ cup of dates weighs 40 grams and has 110 calories

$\frac{1}{4}$ cup of sugar weighs 52 grams and has 200 calories

Sugar Comparison by Weight

40 grams of dates (2 – 5 dates)
= 110 calories

40 grams of granulated sugar
(10 tsp, 10 cubes, $3\frac{1}{4}$ tbsp or $\frac{1}{3}$ cup)
= 160 calories

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A Healthier Alternative to Refined Sugar (cont'd)

Diverse Carbohydrate Profile

California Dates offer a distinct nutritional profile, primarily composed of 75% carbohydrates, which includes a balanced blend of natural sugars and dietary fibers. This sets dates apart from refined sugar which consists of 99.8% carbohydrate sugars. This balanced composition not only provides both immediate and sustained energy it also supports digestive health, making dates an exceptionally nutritious option in comparison.

Lower Calories than Sugar: Dates have fewer calories compared to processed sugar, making them a suitable option for those mindful of their calorie intake.

1:1 Sugar Substitute: Dates can be used as a natural sugar substitute in a 1:1 ratio. This means you can easily replace refined sugar with dates or date sugar in your recipes without having to adjust quantities.

Versatility

Variety of Options: California Dates come in various forms, each suitable for different culinary applications.

Fresh Dates: Perfect for snacking, baking and cooking, adding to salads and sides, or as a topping for cereals, smoothies and yogurt for a burst of natural sweetness.

Date Pieces: Conveniently chopped for easy incorporation into recipes or as a topping.

Date Sugar: A finely ground, natural sweetener that works well in baking and cooking.

Date Syrup: A liquid sweetener with a rich, caramel-like flavor, ideal in dressings, sauces, as a glaze or drizzled on pancakes

Date Butter or Date Paste: A creamy spread that can be used as a healthy alternative to traditional spreads in sandwiches or on toast.

All of these options can be homemade or purchased and are free from added ingredients or additives, ensuring a pure source of natural sweetness for your culinary creations.



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Compared to Other Natural Sweeteners



While all-natural sweeteners have their unique characteristics and can be part of a healthy diet in moderation, dates stand out for their fiber content, rich nutrient profile, and lower glycemic index.

Fiber Content:

- Dates: High in dietary fiber, promoting digestive health and helping to regulate blood sugar levels.
- Honey and Maple Syrup: Generally lower in fiber compared to dates.

Nutrient Content:

- Dates: Rich in essential nutrients, including potassium, magnesium, and vitamin B6.
- Honey: Contains trace amounts of vitamins and minerals, but the nutritional content can vary.
- Maple Syrup: Contains small amounts of minerals such as manganese and zinc.

Lower Glycemic Index:

- Dates: Despite being sweet, they have a lower glycemic index (42 per 100 g) compared to honey and maple syrup, meaning they have a slower impact on blood sugar levels.

Natural Sugars:

- Dates: Contain natural sugars (glucose, fructose, and sucrose) but also provide other beneficial compounds.
- Honey: Contains natural sugars along with antioxidants and enzymes.
- Maple Syrup: Contains natural sugars along with some antioxidants.

Antioxidant Properties:

- Dates: Rich in antioxidants, including polyphenols.
- Honey: Contains antioxidants that can vary based on the floral source.
- Maple Syrup: Contains antioxidants, such as phenolic compounds.

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Compared to Artificial Sweeteners

California Dates offer a remarkable alternative to a wide range of sweeteners, including artificial options like aspartame, sucralose, and stevia.

Nutritional Richness: Unlike artificial sweeteners like aspartame, which are devoid of nutritional value, California dates are packed with essential nutrients. They provide vitamins, minerals, and dietary fiber along with their natural sweetness, making them a more nourishing choice.

Low Glycemic Index: Dates have a low glycemic index of 42 per 100 g, which means they have a minimal impact on blood sugar levels. In contrast, some artificial sweeteners may cause blood sugar spikes, potentially leading to energy crashes and cravings.

Natural Sweetness: Dates offer a natural sweetness without the need for added sugars or artificial additives. This makes them an excellent choice for individuals looking to reduce their sugar intake or avoid artificial sweeteners.

Balanced Carbohydrates: Dates contain balanced carbohydrates, primarily simple sugars like glucose and fructose, along with dietary fiber. This balance ensures that the energy provided by dates is steady and sustained, unlike the quick surges and crashes associated with some sweeteners.

Whole Food Source: Dates are a whole food source, which means they are minimally processed and free from synthetic chemicals often present in artificial sweeteners. They are also free from the potential contaminants sometimes found in artificial sweeteners.





CALIFORNIA DATES

Nutritional Profile (In Detail)

CARBOHYDRATES & SUGARS • FIBERS • POLYPHENOLS • B VITAMINS • MINERALS

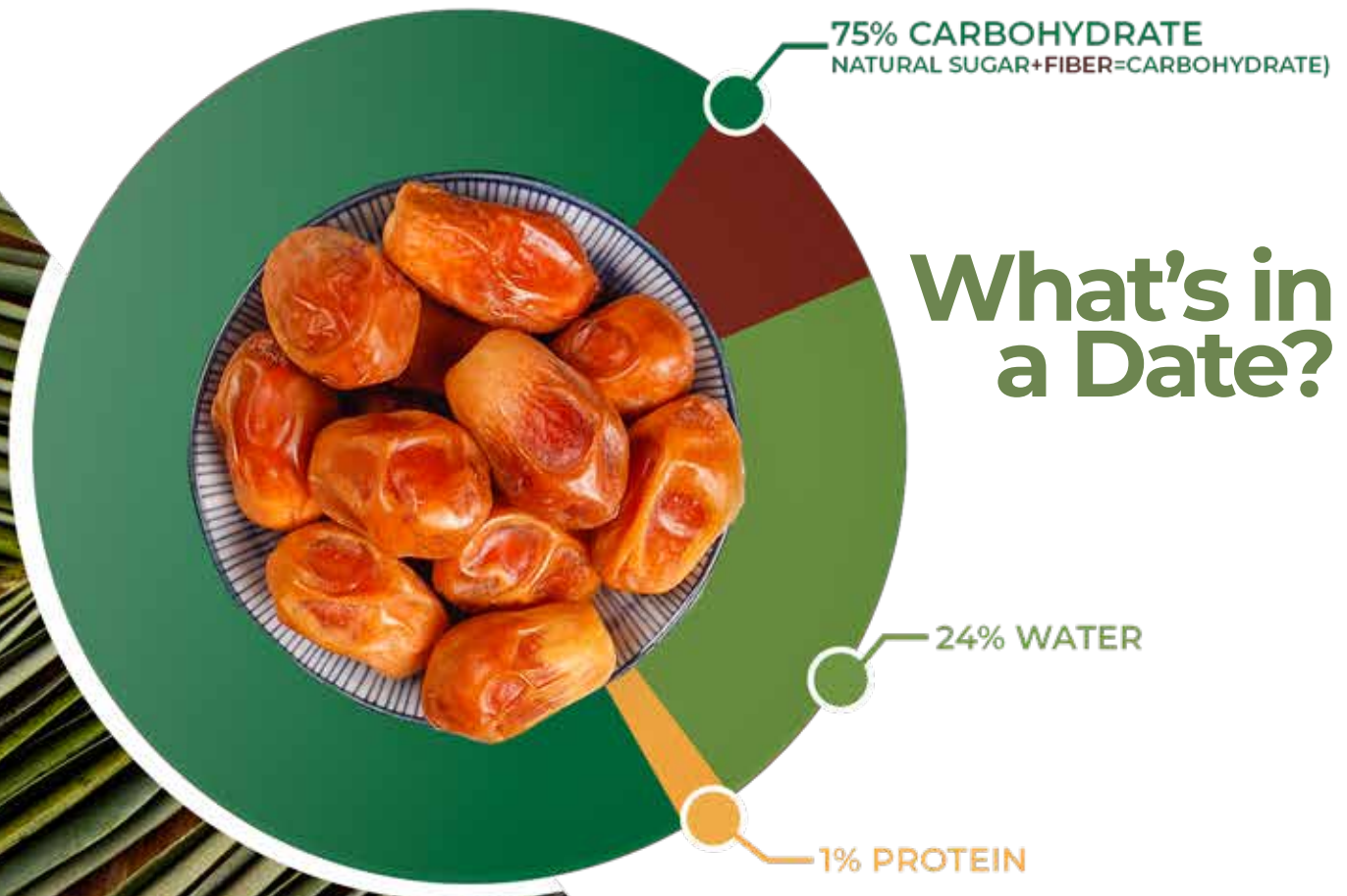




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Carbohydrates and Sugars

WHAT'S IN A DATE? • CARBOHYDRATES - HOW THEY WORK IN DATES
NATURAL ENERGY BOOSTER • GLYCEMIC INDEX



CALIFORNIA DATES

Carbohydrates - How They Work in Dates

A Diverse Carbohydrate Profile

Dates are distinguished by their diverse carbohydrate composition, with approximately 75% carbohydrates, including natural sugars balanced with dietary fibers.

Simple Sugars And Fibers

Date carbohydrates are made up of simple sugars namely glucose and fructose. When these sugars combine, they form sucrose. Date fibers, which only undergo partial digestion, slow down the absorption of simple sugars leading to a more gradual rise in blood sugar levels.

Glucose has its own pathway for absorption into the bloodstream, making it first into the muscles for energy use.

Fructose has its own separate pathway of absorption into the liver to be transformed into glycogen for energy in the muscles. It is slightly slower to enter the bloodstream giving a prolonged energy source.

The efficiency of this process is underscored by the role of date polyphenols, which aid in the digestion of fructose. These polyphenols not only impede liver fat production (triglycerides) but also activate fat metabolism.

Date antioxidant polyphenols further contribute to the regulation of human serum triglycerides, maintaining heart-healthy levels. This intricate interplay of simple sugars and fibers in dates showcases the fruit's exceptional nutritional benefits.

Natural Energy Booster

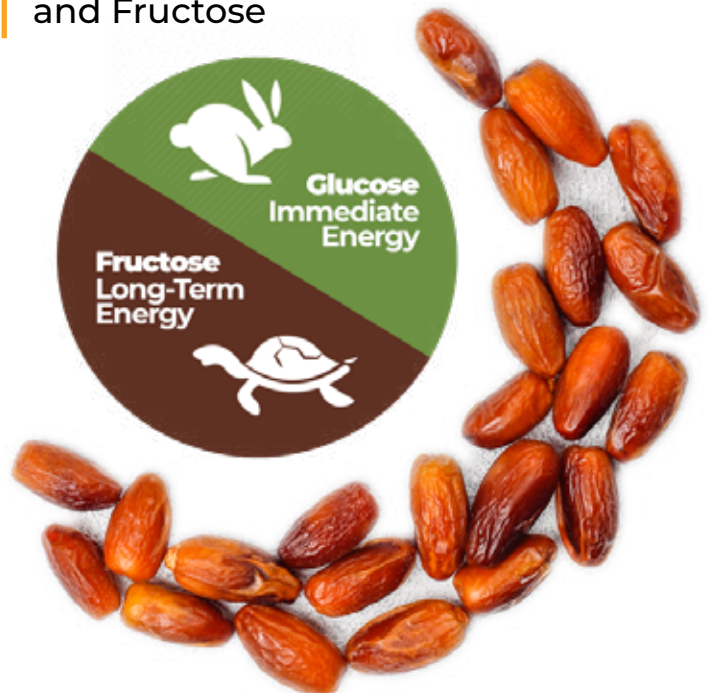
Balanced Glucose and Fructose for Both Immediate and Sustained Energy

Dates offer both immediate and sustained energy benefits. Glucose is rapidly metabolized, supplying quick energy, while fructose is absorbed more slowly, contributing to a sustained source of energy.

Dates are Great!

Because they have

Equal-Parts Glucose
and Fructose



CALIFORNIA DATES

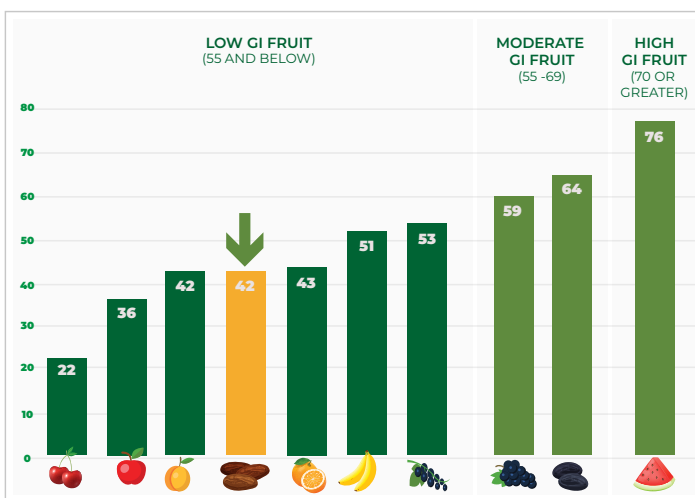
Glycemic Index

California Dates contain natural compounds (Fiber, Sorbitol, Fructose and Water) that hinder rapid sugar absorption and lower the GI, making them a suitable choice for individuals conscious of their glycemic index.

Dates have a low glycemic index (GI) of 42 per 100 grams. This indicates that they have a minimal impact on blood sugar levels. Eaten in moderation, California Dates can be a part of a healthy, balanced diet plan for individuals managing diabetes, pre-diabetes, or those aiming to regulate blood sugar levels.

** Always consult with your healthcare provider, dietitian, or nutritionist before making any dietary changes.*

GLYCEMIC INDEX



Important Note Regarding Online Misinformation About Glycemic Index and Dates

Be on the lookout for misinformation on Glycemic Index (GI). A mistake with the Glycemic Index in a published article showed dates with a high GI of 103 on a scale of 100 for glucose. If you see this mistake on the internet, there are 2 updated publications showing a correction.

The publication from Australia with the incorrect 103 GI was dispersed throughout the internet and was read by many consumers including thought leaders. The Australian research team was contacted by the California Date industry advising them of the error. The California Date Commission tested dates by a laboratory analysis rather than a clinical trial. Australia republished data showing dates with a low glycemic index of 42. Source: Diabetes Care 2008.

California Dates published a confirmation of dates' low glycemic index by laboratory test at the American Society of Nutrition, alerting the scientific community to update their websites. At this time, only a few sites have been updated.

Dates have natural compounds that slow down sugar absorption and lower the GI. These are fiber, sorbitol, fructose, and water. The research proved it was never possible for the Glycemic Index in dates to be high.

**Source: American Society of Nutrition.*

CALIFORNIA DATES

Fibers

TYPES OF FIBERS & COMPARISONS • NEED OF FIBER • CARBOHYDRATE FIBER RATIO

Types Of Fibers & Comparisons

What Is Dietary Fiber?

Dietary fiber is a type of carbohydrate that is not digested or broken down by digestive enzymes in the stomach and small intestine. Instead, it passes through the digestive tract relatively intact. While it does not remain in the stomach and small intestine, it can have effects in the colon as it interacts with gut bacteria and can contribute to overall digestive health.

Types Of Fibers

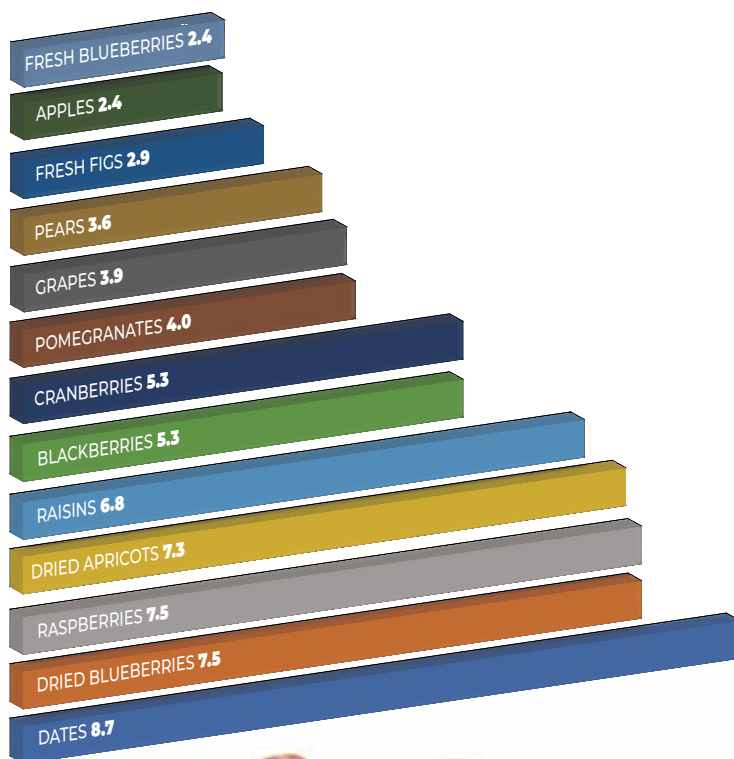
Soluble Fiber

This type of fiber dissolves in water to form a gel-like material. It can assist in lowering blood cholesterol and glucose levels. Dates contain some soluble fiber.

Insoluble Fiber

This fiber does not dissolve in water, promoting the movement of material through your digestive system and absorbing water to increase stool bulk. Date fibers are mostly insoluble.

(Per 100g)





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Need of Fiber

Benefits Of A High-Fiber Diet

Normalizes Bowel Movements

Dietary fiber increases the weight and size of a stool and softens it. A bulky stool is easier to pass, decreasing the chance of constipation. With loose, watery stools, fiber may help to solidify the stool as it absorbs water and adds bulk.

Helps to Maintain Bowel Health

A high-fiber diet may lower the risk of developing hemorrhoids and small pouches in the colon (diverticular disease). Dates offer fiber without seeds for those who need to avoid them in their diet.

Lowers Cholesterol Levels

Soluble fiber found in dates, like all fruits, may help lower total blood cholesterol levels by lowering low-density lipoprotein (LDL), or “bad” cholesterol levels.

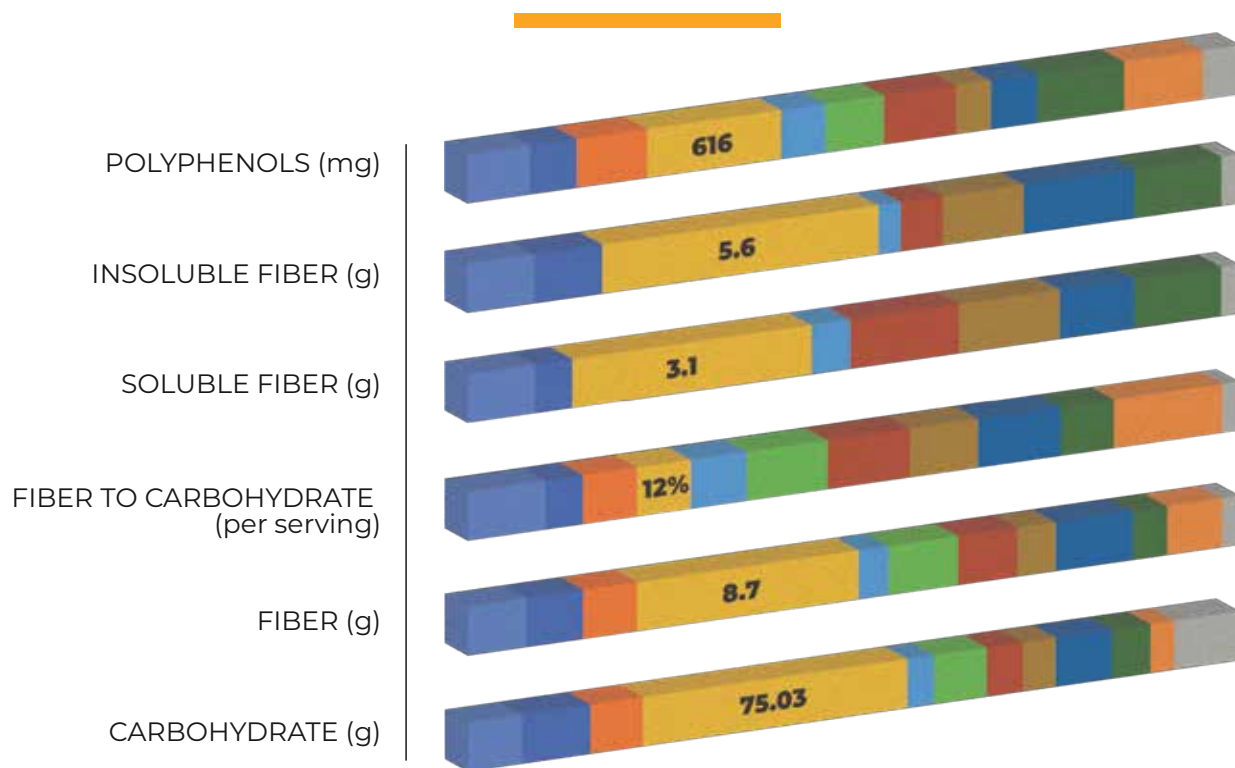
Assists in the Control of Sugar Levels

For people with diabetes, fiber – particularly soluble fiber – can slow the absorption of sugar and help improve blood sugar levels. A healthy diet that includes insoluble fiber may also reduce the risk of developing type 2 diabetes.



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Carbohydrate Fiber Ratio



	CARBOHYDRATE (g)	FIBER (g)	FIBER TO CARBOHYDRATE (PER SERVING)	SOLUBLE FIBER (g)	INSOLUBLE FIBER (g)	POLYPHENOLS (mg)
APPLE	13.81	13.81	2.4	17%	0.67	282
BANANA	22.84	13.81	2.6	19%	0.58	231
CHERRY	16.01	13.81	2.1	13%	0	339
DATES	75.03	13.81	8.7	12%	3.1	616
GRAPEFRUIT	8.08	13.81	1.1	14%	0.58	214
KIWIFRUIT	14.66	13.81	3	20%	0	278
ORANGE	11.75	13.81	2.4	20%	1.37	337
PEACH	9.54	13.81	1.5	16%	1.31	163
PEAR	15.46	13.81	3.1	20%	0.92	219
PLUM	11.42	13.81	1.4	12%	1.12	422
STRAWBERRY	7.68	13.81	2	26%	0	368



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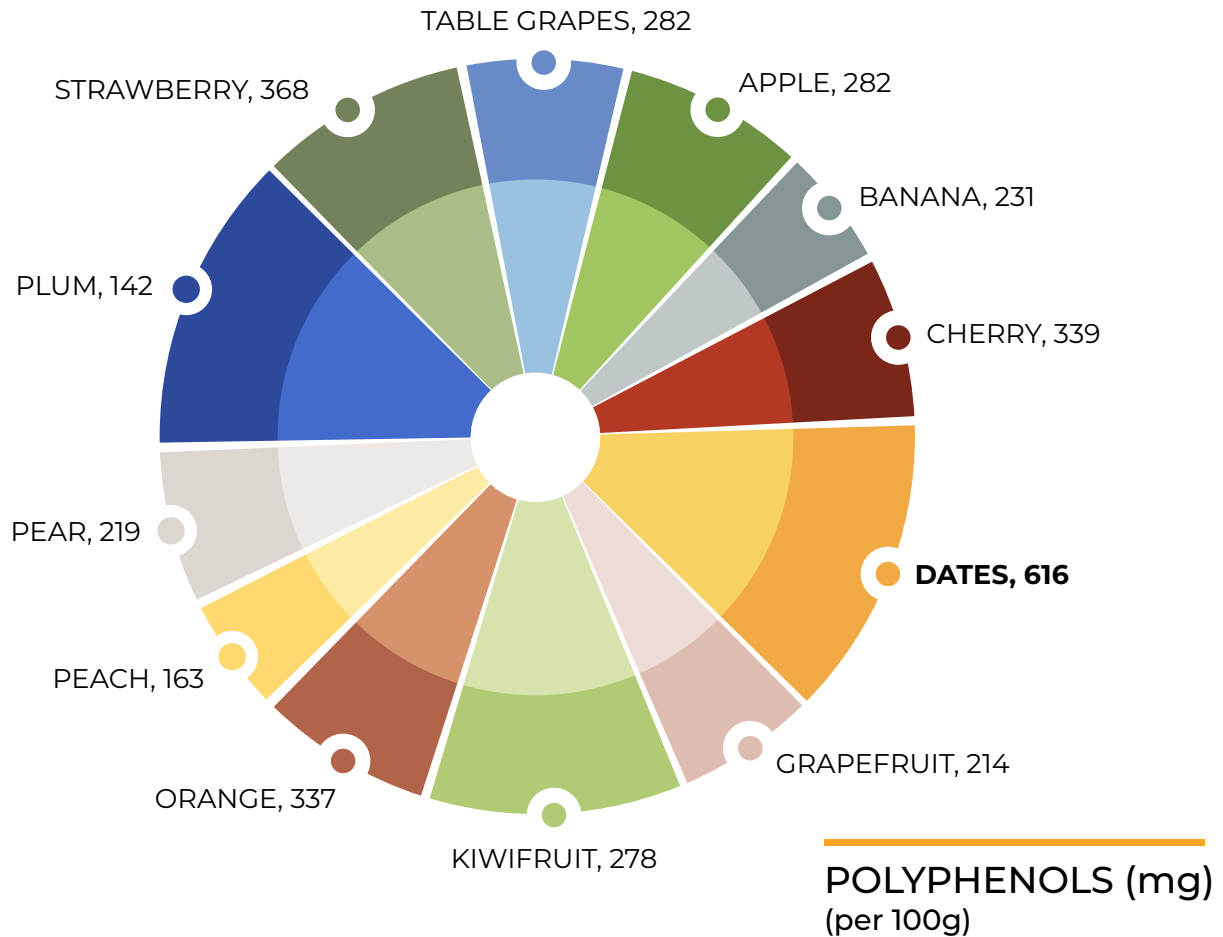
Polyphenols

ANTIOXIDANT HEALTH BENEFITS • GENES ACTIVATING THE LOWERING OF FAT PRODUCTION IN THE BODY

Antioxidant Health Benefits

Date polyphenols act both as antioxidants and activate metabolism regulators.

Human metabolism is regulated by a group of receptors (receivers) located in the gut, liver, and kidneys. These receivers control the amount of fat, cholesterol, sugar, and hormones in the blood to maintain a healthy balance. To control this balance, you must eat foods with polyphenols that activate these switches regulating production, turning it on and off.



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Polyphenols

Genes Activating The Lowering Of Fat Production In The Body

Date polyphenols are a perfect match for these receptors. Research confirms that date polyphenols activate 2 receptors (nuclear hormone receptors). FXR lowers 2 fats (triglyceride and cholesterol)

- FXR lowers 2 fats (triglyceride and cholesterol)
- PPARa starts fat-burning

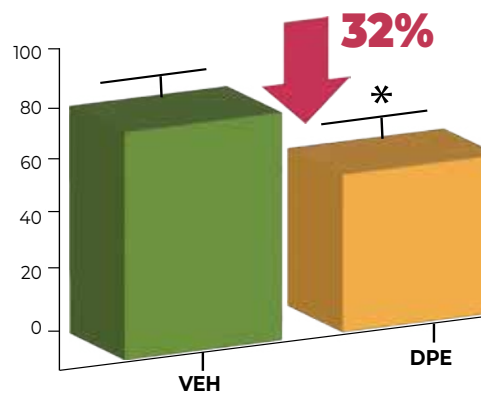
Background

Date polyphenol extract was developed by researchers at the University of Wisconsin. The purpose of the research was to establish evidence on how dates, a high fructose-bearing fruit, can reduce fat (triglyceride and cholesterol) production. The conclusion of the results showed that the consumption of dates lowers serum triglyceride levels despite their high concentration of fructose. Dates have 30 grams of fructose and 616 milligrams total of polyphenol. This is a ratio that should be considered for dietary considerations in counteracting the effects of fructose.

Using the extract method, dates have shown the effect of fruit on reducing fat and cholesterol.

Source: PlosOne

Natural Protection To Maintain A Healthy Balance Of Triglycerides And Cholesterol

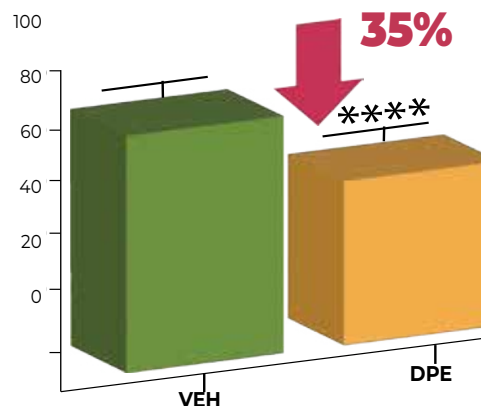


Serum Cholesterol

DPE - Down 32%*

Date palm Extract (DPE) significantly reduces serum cholesterol levels 14 hours post-administration in vivo in C57BL/6 mice.

Data represent means +/- SEM n=12-15 per treatment, *p<0.05 (VEH:vehicle;DPE: Date palm extract, 250 mg/kg)



Serum Triglyceride

DPE - Down 35%***

Date Palm Extract (DPE) significantly reduces serum triglyceride levels 14 hours post-administration in vivo in C57BL/6 mice.

Date represent mean +/- SEM, n=12-15 per treatment,***p<0.0001 (VEH: vehicle; DPE: Date {Palm Extract, 250 mg/kg)

CALIFORNIA DATES

B Vitamins and Minerals

6 OF 8 ESSENTIAL B VITAMINS • PH COMPARISON • 7 ESSENTIAL MINERALS

6 ESSENTIAL B VITAMINS

Biotin
Niacin
Pantothenic Acid
Pyridoxine
Riboflavin
Thiamin

California
Dates
Are Packed
With

7 ESSENTIAL MINERALS

Potassium
Copper
Magnesium
Manganese
Zinc
Calcium
Iron





CALIFORNIA DATES

6 Essential B Vitamins



B vitamins are naturally occurring in dates in balanced amounts. They play several essential roles in health metabolism as the B vitamin converts energy from fats and carbohydrates into energy the body uses.

6 Of 8 Essential B Vitamins In California Dates

- Biotin
- Niacin
- Pantothenic Acid
- Pyridoxine
- Riboflavin
- Thiamin

Essential to Nerves and Energy Metabolism

Some B vitamins help protect from elevated homocysteine, a compound that should be controlled for heart health. Folate, B6, and B12 (from animal products) all help to keep healthy levels for heart health.

Consuming dates on a daily basis ensures these water-soluble vitamins will be replenished since the body does not store them.

DATES (40g serving Size)



- B1 THIAMIN(E), 2%
- B2 RIBOFLAVIN, 4%
- B3 NIACIN, 6%
- B5 PANTOTHENIC ACID, 6%
- B6 PYRIDOXINE, 4%
- B7 BIOTIN, 8%

Reference:

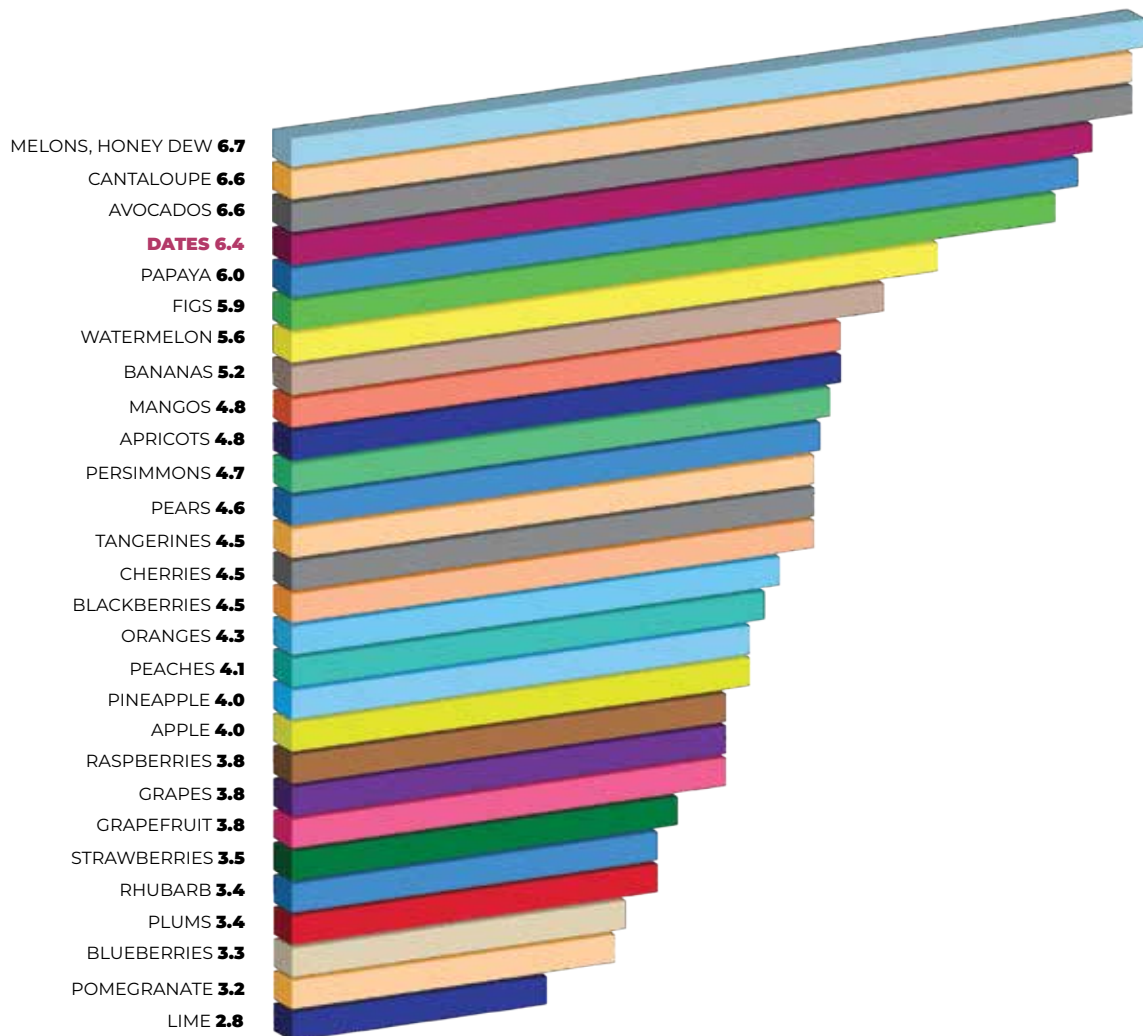
Institute of Medicine (US) Standing Committee on the Scientific Evaluation of Dietary Reference Intakes and its Panel on Folate, Other B Vitamins, and Choline. Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic Acid, Biotin, and Choline. Washington (DC); National Academies Press (US); 1998.

CALIFORNIA DATES pH Comparison

Alkaline And Acidic Foods

Some diets suggest monitoring the pH of the foods you eat to assist in digestion. Avoiding acidic foods has been suggested for foods below a pH of 4. Dates have a pH of 6.4 and make a great snack. Each individual has a slightly different tolerance for foods and should consult their doctor if acidic foods are an issue.

Higher pH are alkaline foods and lower pH are acid. 7 pH is neutral.





CALIFORNIA DATES

7 Essential Minerals



Minerals from the rich desert soil make California Dates a nutrient-dense, healthy whole fruit. The minerals are all naturally occurring from the date palm trees.

There are 7 essential minerals in California Dates

- Potassium
- Copper
- Magnesium
- Manganese
- Zinc
- Calcium
- Iron

A Balancing Act

California Dates include some additional beneficial minerals including Boron. The one mineral dates do not possess is Sodium. This makes California Dates a perfect complement to high-sodium foods including dairy and meats.

Perfect Pairings

Assorted foods that go well with California Dates:

- Cheese
- Salty Nuts
- Bacon or Prosciutto
- Adding Dates to Salads
- Serving Dates with Sandwiches

DATES (40g serving Size)



- POTASSIUM 262mg, 6% DV
- ZINC 0.12mg, 2% DV
- CALCIUM 19mg, 2% DV
- COPPER 0.01mg, 10% DV
- IRON 0.4mg, 4% DV
- MAGNESIUM 20mg, 4% DV
- MANGANESE 0.1mg, 4% DV

Reference:

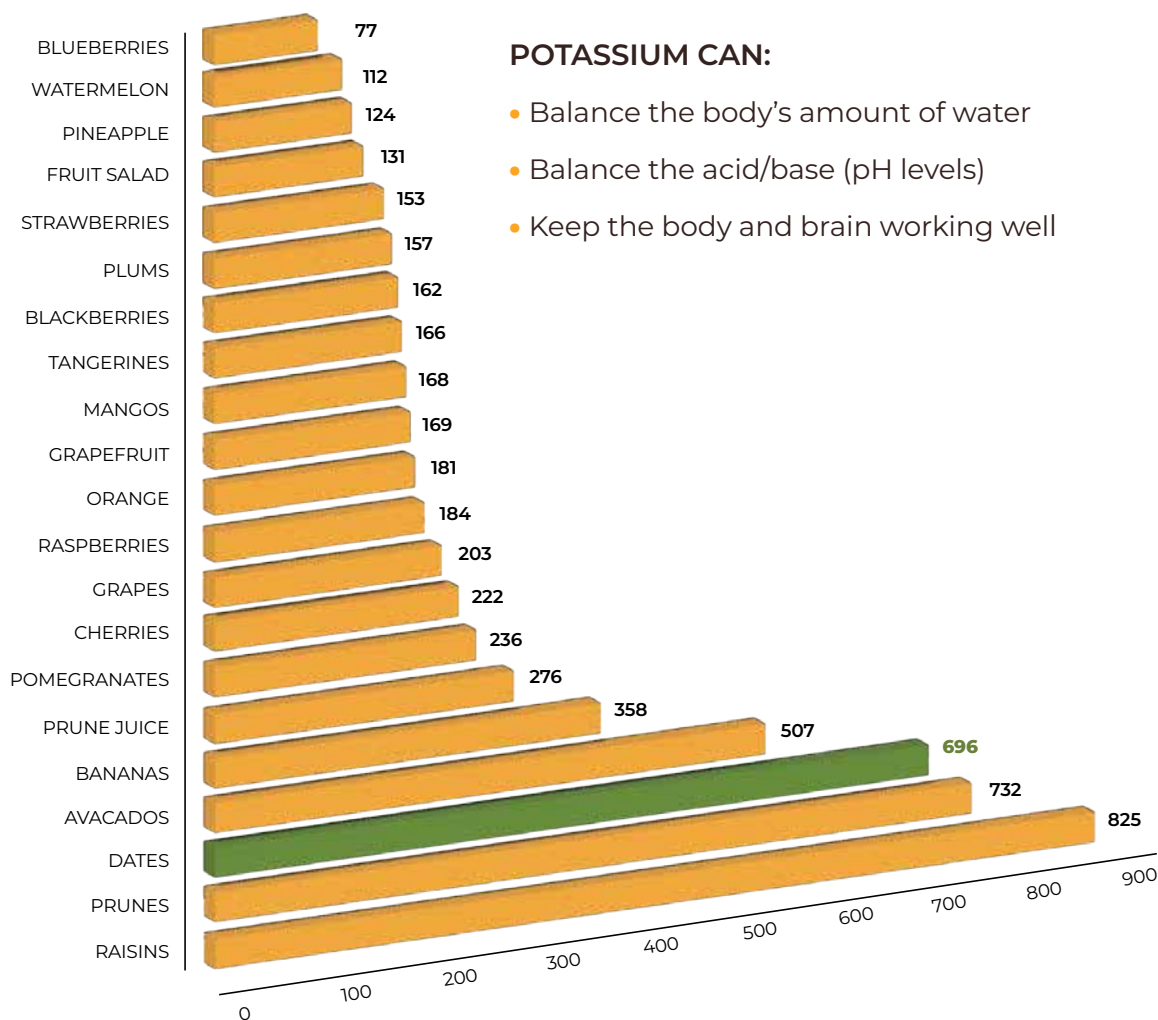
Institute of Medicine (US) Standing Committee on the Scientific Evaluation of Dietary Reference Intakes and its Panel on Folate, Other B Vitamins, and Choline. Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic Acid, Biotin, and Choline. Washington (DC); National Academies Press (US); 1998.

CALIFORNIA DATES

Potassium

Potassium (262 mg, 6% DV)

- The human body needs potassium to contract muscle and keep the heartbeat regular.
- Diets rich in potassium help to balance the sodium in consumed food, which may help to control blood pressure. Most Americans need more potassium in a daily diet.
- Electrolytes like potassium can be lost during prolonged exercise; replacing water and electrolytes such as potassium can help keep the body hydrated.





CALIFORNIA DATES

Copper, Magnesium, Manganese



Minerals should come from foods rather than supplements in a daily diet. California Dates provide a wide range of minerals in small but significant amounts. These are the minerals in biological forms that occur naturally in dates. Incorporating dates into snacks and meals can add these minerals in a small amount, 'helping meet the daily quota. Substituting dates daily as snacks and in meals can improve overall nutrition when the typical sweets and snacks have no nutritional value.

Copper (0.1 MG, 10% DV)

- Dates have a good source of copper. This is the highest DV of the date minerals. Copper is known as a heart-healthy mineral as it is involved in the supply of oxygen that the cardiovascular system carries from the lungs throughout the body.
- Most Americans get enough copper in a typical diet, yet avoiding any of the food groups can change copper intake. And some people have difficulty absorbing copper, like Celiac patients, who avoid gluten and wheat products, and they need to make sure they are getting enough.
- Copper works in tandem with other minerals to help metabolize iron. It helps the body absorb and store iron, essential in forming red blood cells.

Magnesium (20 MG, 4% DV)

- Magnesium is used in activating B vitamins. Dates have 6 B vitamins and the magnesium works together with them to help energy production.
- It helps regulate many systems in the body's muscles and nerves including blood sugar control and blood pressure regulation. Magnesium is also involved in bones, energy production, muscle contractions, and normal heart rhythms.
- Magnesium works in tandem with other minerals to help absorb calcium, vitamin C, and potassium. California Dates have a wide range of nutrients that work together, increasing their health benefits.

Manganese (0.1 MG, 4% DV)

- Manganese is a cofactor for many enzymes. Through the action of these enzymes, manganese is involved in amino acid, cholesterol, glucose, carbohydrate metabolism, and thyroid hormone function. It is an essential mineral for keeping body energy functioning at its best.

CALIFORNIA DATES

Zinc, Calcium, Iron

Zinc (0.12 mg, 2% DV)

- Zinc assists with the immune system and is involved in growth, vision and wound healing. Carbohydrate and protein metabolism are assisted by Zinc.

Calcium (19 mg, 2% DV)

- The nutrient a body needs for building and keeping bones strong is Calcium. It is also required for a wide range of other actions such as for the muscles to contract, blood to clot, and nerves to function properly.
- It is important to get Calcium from foods like dates because all of the minerals in dates help calcium be absorbed and stored.

Iron (0.4 mg, 2% DV)

- Iron is the mineral essential to form protein that carries oxygen throughout the bloodstream in the body. Necessary for growth and normal cell functions, iron is also used to make some hormones and connective tissue.
- Most Americans are lacking this mineral in their diet. California Dates are sweet fruits that provide an easy way to add iron to your diet.





CALIFORNIA DATES

Nutrient & Energy Density

**COMPARISON WITH OTHER FRUITS & NUTS
COMPARISON WITH CALORIES PER GRAM • COMPARISON WITH VARIOUS FOODS**



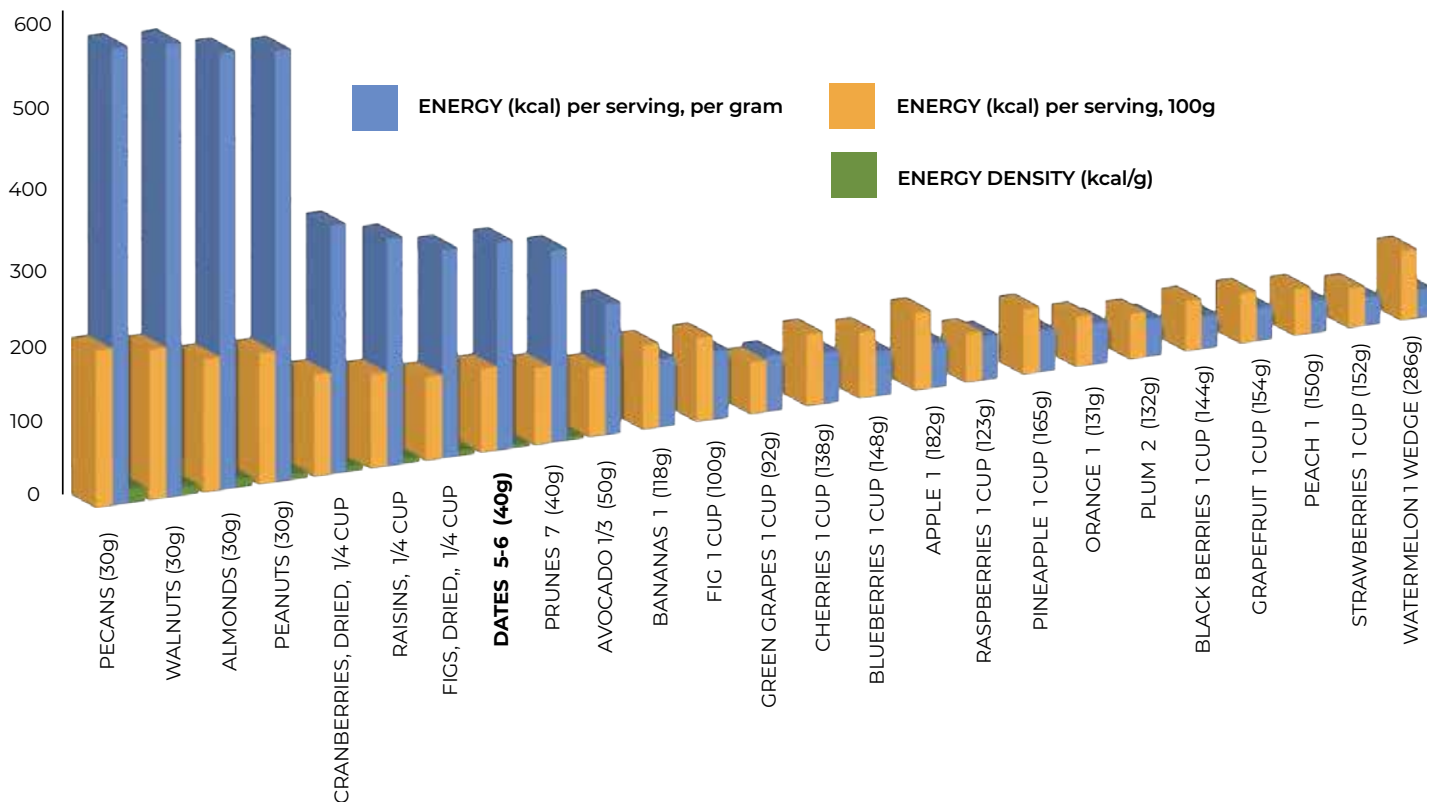
CALIFORNIA DATES

Comparison With Other Fruits & Nuts

Energy Density is the number of calories per gram and is used to describe and compare foods by the amount of energy (calories) they contribute.

All foods have between 0 to 9 calories per gram. Dates have 2.75 calories per gram.

Date energy comes almost entirely from carbohydrate sugars and a small amount of protein





CALIFORNIA DATES

Comparison With Calories per Gram



CALIFORNIA DATES

Comparison With Various Foods

	Energy (kcal) per Serving, per gram
WATER	0
APRICOT, 2 (70g)	34
STRAWBERRIES, 1 CUP (152g)	50
PEACH, 1 (150g)	59
PLUM, 2 (132g)	59
ORANGE, 1 (131g)	62
BLACKBERRIES, 1 CUP (144g)	62
PAPAYAS, 1 CUP (145g)	62
GREEN GRAPES, 1 CUP (92g)	63
RASPBERRIES, 1 CUP (123g)	64
GRAPEFRUIT, 1 CUP (154g)	65
FIG, 1 CUP (100g)	74
PINEAPPLE, 1 CUP (165g)	83
WATERMELON, 1 WEDGE (286g)	83
AVOCADO, 1/3 (50g)	84
KIWI, 2 (138g)	84
BLUEBERRIES, 1 CUP (148g)	84
CHERRIES, 1 CUP (138g)	87
APPLE, 1 (182g)	95
POMEGRANATE ARILS, 1 CUP (122g)	99

	Energy (kcal) per Serving, per gram
MANGO, 1 CUP (165g)	99
PEAR, 1 (166g)	100
PRUNES, 7 (40g)	100
BANANAS, 1 (118g)	105
CANTALOUPE, 1 CUP (177g)	108
FIGS, DRIED 1/3 CUP (40g)	110
DEGLET NOOR DATE, 5-6 (40g)	110
GUAVA, 1 CUP (165g)	112
RAISINS, 1/4 CUP (40g)	120
CHEESE (30g)	120
OLIVE OIL (14g)	124
CRANBERRIES, DRIED 1/4 CUP (40g)	130
POTATO CHIPS (30g)	160
SUGAR (40g)	160
PEANUTS (30g)	171
ALMONDS (30g)	174
WALNUTS (30g)	196
PLANTAINS, 1/2 (134g)	200
PECANS (30g)	207
CHOCOLATE CHIPS (40g)	213



CALIFORNIA DATES

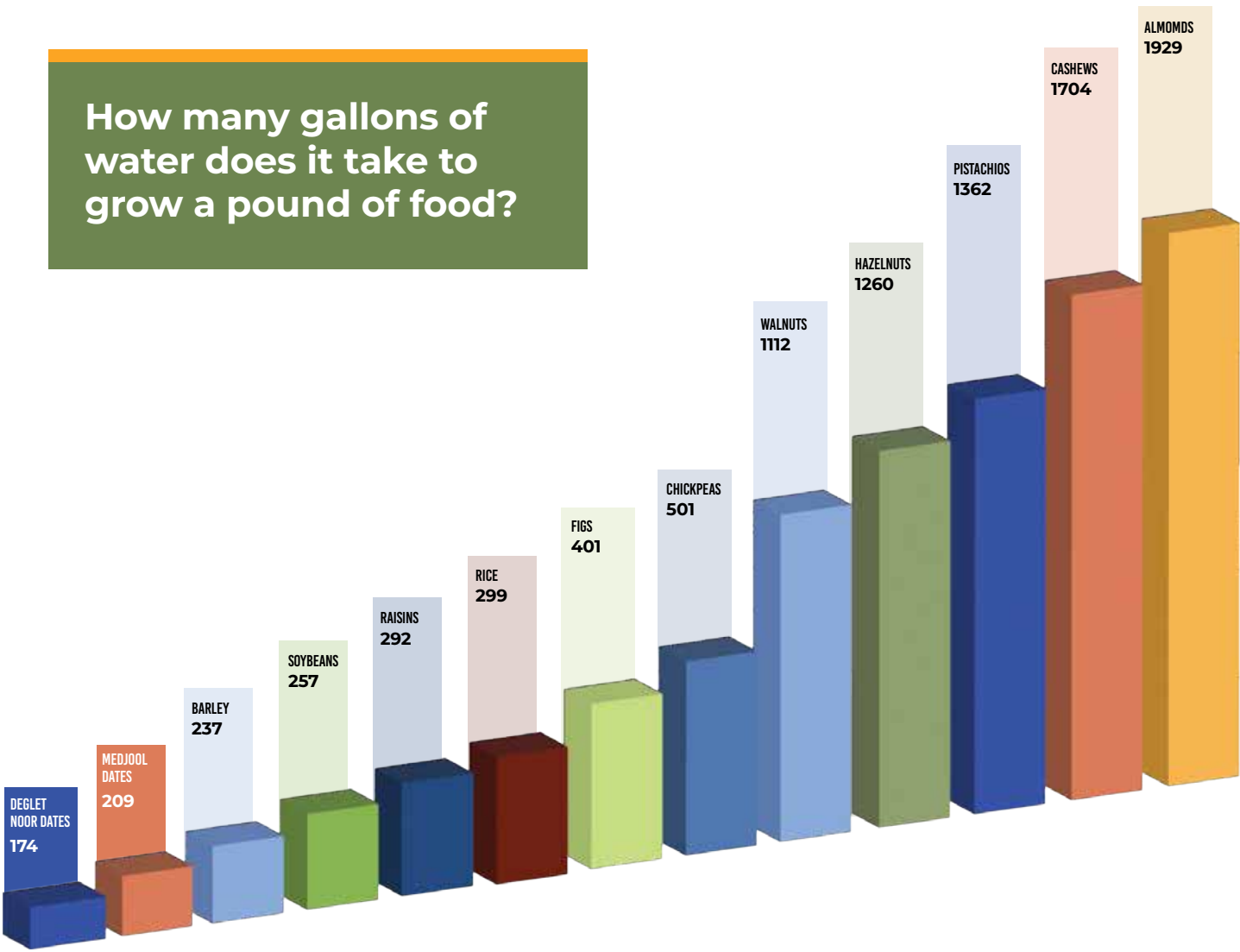
Sustainability



CALIFORNIA DATES

Sustainability

How many gallons of water does it take to grow a pound of food?



CALIFORNIA DATES

Sustainability



DATE PALMS CLEANING THE AIR

The Lungs of the Desert

- Date palms absorb carbon dioxide (CO₂) and produce sugars, oxygen, and water
- Date palms are larger than most trees and have large root systems as this allows them to take up more CO₂.
- Because date palms are long lived, they can take up to one ton of CO₂ for each tree over their lifetime.
- Trees are the natural lungs of the earth cleaning the air and producing oxygen.
- The date palm leaves are very dense and are adapted to high temperatures of the desert tolerating up to 120 degrees fahrenheit.
- Date palm shoots growing from the trunk are removed and planted to grow new trees - starting the process again.

Oxygen Factory

- One acre of palm trees absorbs 26 cars of CO₂ annually.
- One automobile's emissions are absorbed by 23 palm trees annually.
- A date palm tree absorbs 200kg (440 lbs) of CO₂ per year

Water Usage and Energy Density

FOOD	ENERGY DENSITY (KCAL/G)	WATER GALLONS PER POUND	WATER GALLONS FOR 100 CALORIE
Deglet Noor	2.75	174	14
Pasta	3.57	222	14
Bread	2.48	193	17
Medjool	2.75	209	17
Raisin	2.99	292	22
Cheese	3.75	381	22
Butter	5.06	665	29
Figs	2.75	401	32
Soybean	1.71	257	33
Walnut	6.54	1112	37
Barley	1.23	237	42
Hazelnut	6.28	1260	44
Rice	1.39	299	47
Chicken	2.23	518	51
Pistachio	5.60	1362	54
Eggs	1.42	395	61
Cashew	5.81	1704	65
Tofu	1.01	302	66
Almond	5.93	1929	72
Pork	2.11	718	75
Chickpeas	1.28	501	86
Beef	3.19	1847	128

CALIFORNIA DATES

Sustainability

On the Farm and Beyond



CLIMATE

California's ideal climate and culture of innovation make it the most productive date-growing region in the United States.

California is one of the few places on earth with the arid climate needed to grow dates.

The ideal climate is a major reason the state produces more than 85% of the dates grown in the U.S.



LOW CARBON FOOTPRINT

California Dates have much lower transportation costs when purchased and consumed locally in North America.

This reliable, local practice reduces the carbon and pollution burden associated with imported fruit from other continents.



FOOD WASTE

Dates have edible skin and no peel or rind resulting in minimal food waste.

Spoilage of dates is among the lowest because they have a long shelf life and very little moisture.

Dates keep well frozen and can be refrigerated for 6 months in an airtight container.



WATER

Desert soils are coarse in texture, shallow, and gravelly with good drainage.

Drip irrigation and modern irrigation technology allow date farmers to better control water usage and make adjustments as needed.



INNOVATION THROUGH RESEARCH

Date growers participate in educational seminars and training to learn soil management techniques to ensure a healthy soil future in the Coachella Valley.

To support on-farm improvements, the California Date Commission translates research findings into actionable and field-ready recommendations shared with farmers and processors through a variety of educational resources, field workshops, and best practices.



USING EVERYTHING THE ORCHARD GROWS

California Date growers participate in agriculture waste disposal programs and are committed to new uses of dates' coproducts that support California's mission of creating a genuine bioeconomy where every byproduct is an input for another valuable product.

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A Burst of California Sunshine in Every Bite



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