



Natural,  
versatile,  
delicious

# CONFECTIONARY

with California Sunshine



## CALIFORNIA WALNUT COMMISSION

As a non-profit organization of the state of California, the California Walnut Commission (CWC) represents the interests of the walnut industry. This encompasses over 4,800 California walnut farmers and nearly 100 processing, packaging and export companies.

As a point of contact for the food industry, CWC offers assistance in the processing of walnuts and guidance in developing new products.



California Walnut Commission

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### PRODUCT INFORMATION FOR THE CONFECTIONARY INDUSTRY

## THE CRÈME DE LA CRÈME FROM CALIFORNIA: PERFECT FOR CONFECTIONARY

California walnuts are grown in the sun and available all year. Their mild flavor makes them the ideal ingredient in sweet foods, and their premium quality allows them to be processed in versatile ways. Walnuts from California adhere to some of the strictest food safety regulations in the world and meet or exceed both USDA and State of California regulations.

Consumers in Europe regard walnuts to be a premium nut product at an acceptable price point. This makes them all but predestined for use in a wide spectrum of products in the mid- to high-end confectionary sector. Among other things, this includes foods with chocolate, nut candies, marzipan, nut pastes, long shelf-life baked goods, and ice cream.

Walnuts are nutrient-rich and add value consumers will recognize and appreciate. As the only tree nut that has a significant amount of the plant-based Omega-3, alpha linolenic acid, walnuts are extremely appealing to health-conscious consumers as well: The benefits in terms of cardiac health were officially confirmed by the EFSA health claim, and indicating this on the label can make confectionary products that feature walnuts especially attractive.

### STRICT STANDARDS IN QUALITY AND FOOD SAFETY

- Standardized agricultural and harvesting methods
- Regular monitoring by legal authorities in the US (including the USDA, FDA and CDFA)
- Rapid harvesting with automated harvesters, which means all of the nuts on a tree are gathered quickly
- Immediate stabilization: Gentle professional grade drying methods used within a few days of the harvest ensure freshness and quality
- Standardized drying methods bring moisture content to 8%

### PROPER STORAGE

Shelled walnuts are a semi-fresh raw material. Their shelf life can be greatly affected by temperature, light and humidity. When stored properly, they can easily be kept for up to one year:

- Use within 6 months when stored between 2°C to 5°C (35°F to 40°F)
- Use within 12 months when stored at -18°C (0°F)
- Store in a dark place
- 55 – 65% relative humidity
- Keep in an airtight odor-neutral container to avoid absorbing odors from other ingredients/foods

### OTHER FACTORS WHICH HAVE AN IMPACT ON WALNUTS' SHELF LIFE:

- The surface area of the nut: they should not be broken up or ground until right before use
- The surface material of the grinder or chopper: inert materials reduce the nuts' susceptibility to oxidize (stainless steel is better suited than steel or similar materials)

## PRODUCT DEVELOPMENT WITH WALNUTS

To manufacture premium-quality confectionary products with California walnuts, you have to keep certain factors in mind.

### FLAVOR

California walnuts are ideal for use in confectionary products thanks to their mild flavor with only a subtle hint of bitterness, which comes from tannins and catechins predominately found in the somewhat darker papery skin on the surface of the walnut. This skin can be removed (by blanching the nuts, for example); however, the irregular contours of the walnut make this process very complex, and the primary purpose of peeling these mild-flavored nuts is only to help reduce discolorations in the finished product.



### OXIDATION

Working walnuts into chocolate or other substances that contain fat can lower the risk of oxidation by restricting their contact to air, improving the products' shelf life.

### LOWERING THE MICROBIOLOGICAL COUNT

One method of lowering the microbiological count on the surface of the walnuts is to treat them with saturated steam in a vacuum. When applied professionally, this has no impact on the walnuts' quality or shelf life. It is only through this process that walnuts can be used in microbiologically sensitive products without affecting the quality.

### MOISTURE

Product applications with longer shelf lives need a lower overall moisture content in the finished product, since a greater moisture content can contribute to off-notes forming. One helpful approach is to store the nuts at low temperatures and coat them with sugar, chocolate or the like. In fresh products with a shorter shelf life, the moisture content does not play as great a part. It should be noted that the texture of the walnuts might become slightly softer. This can be partially offset by using the right kind of non-water soluble coating medium (such as chocolate).

### HEATING

Roasting, caramelizing or other similar heating processes can have an impact on walnuts' moisture content, flavor, color and in some cases their microbiological profile. To lower the risk of off-notes or other quality flaws, temperatures should not exceed 145°C; and temperatures below 125°C are more advisable. Gentle handling at lower temperatures and a prolonged resting period have a marked positive effect on walnuts' taste and shelf life. The roasting temperature is of much greater importance here than the roasting period.

### SURFACE AREA

California walnuts are cracked exclusively on a fully automated basis and mechanically shelled, sorted and packaged. During this process, the brown skin flakes off in some spots. Consequently, this limits the extent to which they can be used as a garnish on premium products. Another alternative is coatings with a transparent glaze (such as sugar or starch). The aesthetics of the surface can also be enhanced with coatings such as chocolate, which can be applied as sprinkles or threads.