



# varieties

There are approximately 30 almond varieties produced in California orchards. Ten varieties represent over 70% of production. Varieties are grouped into broad classifications for marketing purposes based on distinguishing characteristics such as size, shape, and “blanchability.” The majority of almond production in California falls into the following three major classifications: Nonpareil, California, and Mission. Some varieties may fall under more than one classification because they have characteristics of one type (such as Mission) but are also blanchable (a characteristic of the California classification). All California Almonds are developed using traditional methods; genetically modified almond varieties are not planted or available in California.

When purchasing California Almonds, it is possible to order either by classification type or by specific variety, depending on what best suits the ultimate usage. Working with your supplier, it is important to understand whether your needs will be best served by ordering a specific variety or a classification type, ensuring the almonds you receive are appropriate for your product line. For example, ordering California type without further information could result in delivery of various almond varieties that also fall under the Mission type, such as the Butte, Padre, or Fritz, which may be a different shape than you need for your application.

## NONPAREIL

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Nonpareil has the widest range of uses among the marketing classifications. Nonpareil are easily blanched (skin is removed) and cut for processed forms. A thin outer shell and smooth kernel allow for easy, blemish-free processing. As a result, Nonpareil almonds are used anywhere an attractive appearance or a strong almond identification is important.

## CALIFORNIA

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This classification includes varieties that are generally blanchable and used primarily in manufactured products. California type almonds have a wide range of shell hardness, kernel shapes, skin color, and surface characteristics. As a result, they are quite adaptable and well suited for nearly any process or application.

## MISSION

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Mission type almonds have a rich flavor, and their kernels are small, wide, and often plump. The kernel skin is generally darker than Nonpareil and wrinkled, which enhances salt and flavor adherence. Blanching is not as common for this type, but some varieties in this classification are blanchable.



# MAJOR CALIFORNIA ALMOND VARIETIES

variety	CHARACTERISTICS		CLASSIFICATION			
	LONG & FLAT	SHORT & PLUMP/ROUND	CALIFORNIA TYPE	MISSION TYPE	NONPAREIL	IN-SHELL HARD SHELL
<b>NONPAREIL (NP)</b> 	●				●	
<b>CARMEL (CR)</b> 	●		●			
<b>BUTTE (BT)</b> 		●	●	●		
<b>PADRE (PD)</b> 		●	●	●		
<b>MISSION (MI)</b> 		●		●		

## NONPAREIL (NP)



**SHELL**  
Soft shell, light color, high suture opening

**NUT**  
Medium, flat shape, smooth surface

## CARMEL (CR)



**SHELL**  
Soft shell, good shell integrity, fair suture opening

**NUT**  
Medium, narrow shape, slightly wrinkled surface

## BUTTE (BT)



**SHELL**  
Semi-hard shell, light color, smooth surface, low suture opening

**NUT**  
Small, short plump shape, wrinkled surface

## PADRE (PD)



**SHELL**  
Hard shell, good shell integrity, no suture opening

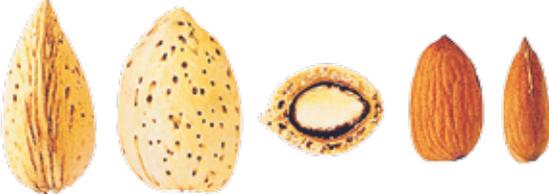
**NUT**  
Small, short wide shape, wrinkled surface

## MISSION (MI)

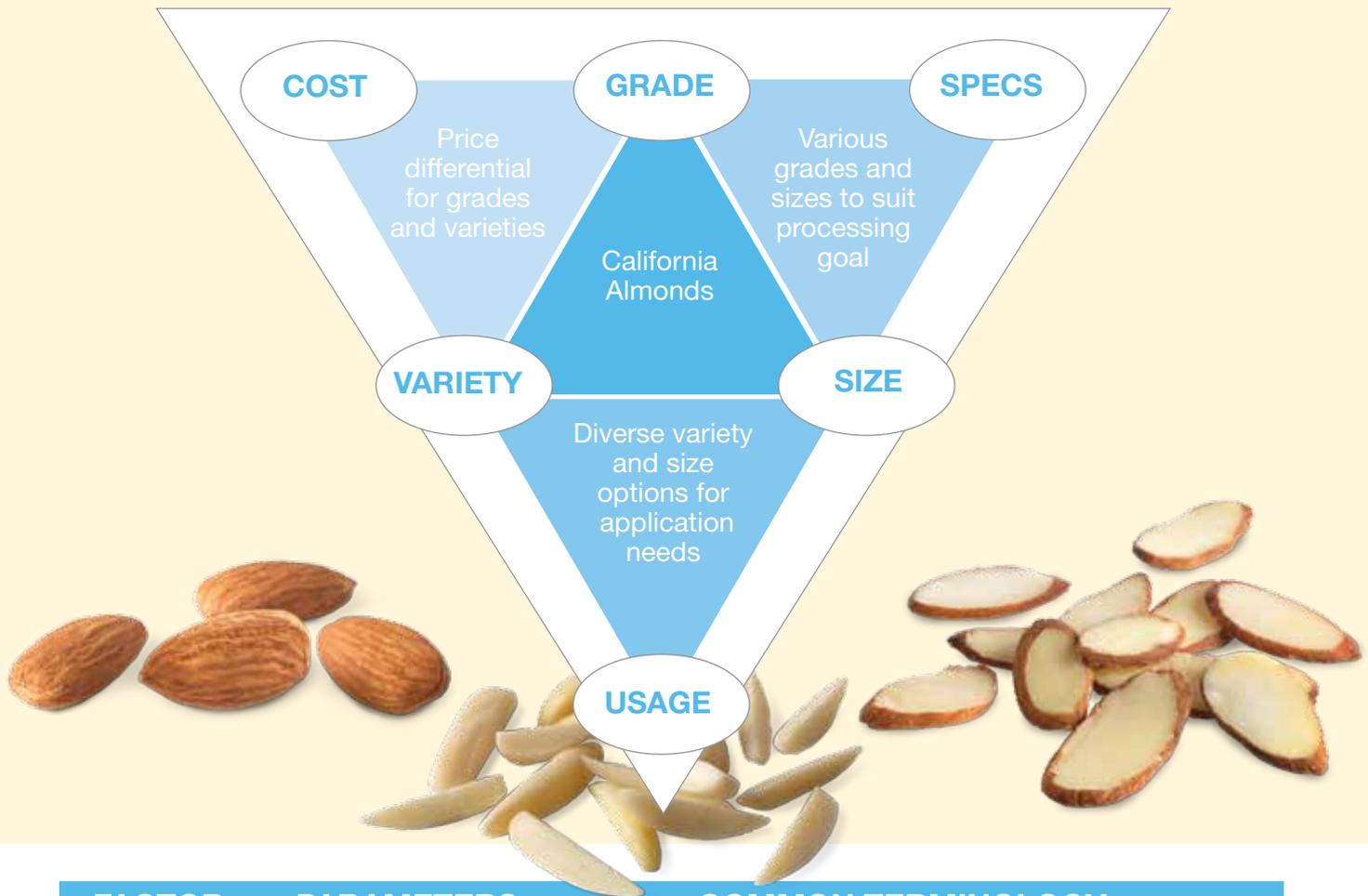


**SHELL**  
Hard shell, good shell integrity, no suture opening

**NUT**  
Small, short wide shape, dark brown, deeply wrinkled surface

			CHARACTERISTICS		CLASSIFICATION				
			LONG & FLAT	SHORT & PLUMP/ROUND	CALIFORNIA TYPE	MISSION TYPE	NONPAREIL	IN-SHELL HARD SHELL	
<b>MONTEREY (MT)</b> 			<b>SHELL</b> Hard shell, smooth surface, low suture opening  <b>NUT</b> Large, long narrow shape, deeply wrinkled surface	●		●			
<b>SONORA (SN)</b> 			<b>SHELL</b> Soft shell, dark brown color, rough surface, high suture opening  <b>NUT</b> Large, long narrow shape, light color, smooth surface	●		●			
<b>FRITZ (FR)</b> 			<b>SHELL</b> Semi-hard shell, good shell integrity, low suture opening  <b>NUT</b> Small, medium plump shape, fairly wrinkled surface		●	●	●		
<b>PRICE (PR)</b> 			<b>SHELL</b> Soft shell, dark brown color, rough surface, high suture opening  <b>NUT</b> Small, short narrow shape, fairly wrinkled surface	●		●			
<b>PEERLESS (PL)</b> 			<b>SHELL</b> Hard shell, good shell integrity, smooth surface, no suture opening  <b>NUT</b> Medium, wide shape, fairly wrinkled surface	●		●			●

# almond purchasing considerations



FACTOR	PARAMETERS	COMMON TERMINOLOGY
<b>VARIETY</b>	Shape, color, skin texture or smoothness, blanchability	Nonpareil, Carmel, Butte, Padre, Mission, Monterey, Sonora, Fritz, Peerless, Price
<b>SIZE*</b>	Count range of whole almond kernels per ounce (28.35 grams)	18/20, 20/22, 23/25, 25/27, 27/30, 30/32, 32/34, 34/36, 36/40, or customer-specified range
<b>GRADE</b>	Dissimilar, doubles, chipped and scratched kernels, foreign material, split and broken kernels, other defects and serious damage	Fancy, Extra No. 1, No. 1 (Supreme), Select Sheller Run, Standard Shell Run, No. 1 Whole and Broken, No. 1 Pieces
<b>IN-SHELL</b>	Shell hardness, shell integrity, suture opening, kernel quality, crack out	Market specific, depending on how in-shell will be ultimately sold to consumers, for example: <b>Traditional:</b> sold in the shell—semi- or hard shell acceptable, cracked with a mechanical nut cracker <b>Snack:</b> sold in the shell—soft shell with greater suture opening to allow seasonings to permeate the shell <b>Hand Crack:</b> sold as kernels—soft shell preferred to allow manual cracking

\*Individual whole kernel size may vary from year to year as a result of variations in weather, growing conditions, and production yields; therefore, availability of specific sizes may be limited in some years.