

# Dairy Protein Jerky Snack

This portable chewy snack, made with whey protein and whole milk, is dried and shaped to resemble beef jerky. It's a good source of protein for any active consumer who wants a convenient and satisfying snack. Teriyaki marinade and a sprinkle of black pepper are sure to tickle your taste buds.



## MARKET INSIGHTS

- The \$90 billion-plus snacking industry continues to grow, providing an enormous opportunity for new product innovations.
- Dairy protein is a great alternative for the nearly one-third of U.S. consumers who indicate they are trying to regularly make an effort to have a meatless meal.
- Nearly one-quarter of consumers check for "protein" most often when they read the labels of food and beverage packages.
- 47% of consumers say the message "good source of protein" is very important on product labels.

## INGREDIENTS

|   | Usage Levels (%) |
|---|------------------|
| <b>Dairy Jerk Ingredients</b>   | <b>100.00</b>    |
| Water   | 52.48            |
| <b>Whey protein concentrate 80</b>                                    | <b>17.49</b>     |
| Corn syrup — Cargill 43/43 IX   | 14.00            |
| <b>Whole milk</b>   | <b>10.50</b>     |
| Starch food, starch modified, cold swelling starch Tm 12744 — Cargill | 5.25             |
| Liquid caramel color — Sethness DS400                                 | 0.28             |
| <b>Teriyaki Marinade</b>  | <b>100.00</b>    |
| Soy sauce, naturally brewed   | 40.77            |
| Honey, natural, wild flower   | 24.20            |
| Sugar, white, granulated  | 19.11            |
| White vinegar   | 14.65            |
| Garlic powder   | 1.27             |

INGREDIENTS: Water, soy sauce, whey protein concentrate, corn syrup, honey, whole milk, sugar, food starch modified, liquid caramel color, garlic.

Contains: milk, soy

## BENEFITS OF USING U.S. DAIRY

### Whey Protein Concentrate 80

- Provides textural characteristics
- Helps prevent moisture loss
- Contains branch-chained amino acids to support nutrition

### Whole Milk

- Contributes rich dairy flavor and provides structure, texture and stability

## NUTRITIONAL CONTENT

### U.S. Label

## Nutrition Facts

| Serving Size (30g)            |                     |
|-------------------------------|---------------------|
| Amount Per Serving            |                     |
| Calories 70                   | Calories from Fat 5 |
| % Daily Value*                |                     |
| <b>Total Fat</b> 0.5g         | <b>1%</b>           |
| Saturated Fat 0g              | <b>0%</b>           |
| Trans Fat 0g                  |                     |
| <b>Cholesterol</b> 15mg       | <b>5%</b>           |
| <b>Sodium</b> 590mg           | <b>25%</b>          |
| <b>Total Carbohydrate</b> 10g | <b>3%</b>           |
| Dietary Fiber 0g              | <b>0%</b>           |
| Sugars 6g                     |                     |
| <b>Protein</b> 9g             | <b>18%</b>          |
| Vitamin A 0%                  | • Vitamin C 0%      |
| Calcium 2%                    | • Iron 0%           |

\*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

|                    | Calories: | 2,000   | 2,500   |
|--------------------|-----------|---------|---------|
| Total Fat          | Less than | 65g     | 80g     |
| Saturated Fat      | Less than | 20g     | 25g     |
| Cholesterol        | Less than | 300mg   | 300mg   |
| Sodium             | Less than | 2,400mg | 2,400mg |
| Total Carbohydrate |           | 300g    | 375g    |
| Dietary Fiber      |           | 25g     | 30g     |
| Protein            |           | 50g     | 65g     |

Calories per gram:  
Fat 9 • Carbohydrate 4 • Protein 4

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## PREPARATION

### Marinade

1. **Mix together all ingredients with an immersion blender, until sugar and garlic powder are completely dissolved.**

### Dairy Jerky

1. **Mix together whey protein concentrate, water and milk. Hydrate for 30 minutes.**
2. **Mix starch, corn syrup and color into the solution.**
3. **Spray a sheet pan with nonstick cooking spray. Add solution to a depth of ¼ inch.**
4. **Heat pan in an oven at 250°F for approximately 45 minutes, until a semi-solid gel is formed. The moisture level at this step should be approximately 71%.**
5. **Let the gel cool and cut into 1½-inch pieces.**
6. **Preheat a skillet and spray the skillet with a small amount of cooking spray or oil. Place the 1½-inch pieces in a skillet on medium to high heat until slightly browned; flip and repeat on the other side.**
7. **Remove from the skillet.**
8. **Cool the product and then immerse in a prepared marinade for four hours at refrigeration temperatures.**
9. **Remove from the marinade and dehydrate for four hours at 135°F. The final moisture level should be 27%.**
10. **Cool dehydrated product and sprinkle with ground black pepper — optional.**
11. **Store the final product at refrigerated temperatures in a vacuum-sealed bag until consumed.**

Rely on the dynamic lineup of U.S. dairy to meet consumer demands in global product development. The U.S. Dairy Export Council® (USDEC) offers resources on [ThinkUSAdairy.org](http://ThinkUSAdairy.org) including a dairy ingredient supplier search, consumer, nutrition and product research, technical insights and prototype assistance to help develop and launch your next successful product. [@ThinkUSAdairy](https://twitter.com/ThinkUSAdairy)

This formula serves as a reference. Product developers are encouraged to modify the formula to meet manufacturing and finished product specifications needs. Developed at the Dairy Products Technology Center, California Polytechnic State University. ©2014 U.S. Dairy Export Council.