# High-Protein Roll - Control vs. Reduced Sodium

Enhance a nutrition label without sacrificing taste, using the naturally salty flavor of delactosed permeate. A high-protein roll made with delactosed permeate contains 76% less sodium than a similar roll made with salt — a reduction from 150mg sodium per serving to just 35mg.



### INGREDIENTS

|                          | Usage Levels (%) | Reduced Sodium<br>(%) |
|--------------------------|------------------|-----------------------|
| Bread Flour              | 36.25            | 31.27                 |
| Milk, 2%                 | 14.55            | _                     |
| Milk, nonfat             | _                | 21.49                 |
| Cottage Cheese, 1% fat   | 14.07            | 11.24                 |
| Whole Wheat Flour        | 9.68             | 7.33                  |
| Milk Protein Isolate     | _                | 6.06                  |
| Butter, unsalted         | 7.48             | 5.47                  |
| Honey                    | 6.29             | 4.89                  |
| Eggs, whole              | 5.66             | 4.69                  |
| Rolled Oats              | 4.55             | 3.42                  |
| Whey Protein Concentrate | _                | 2.64                  |
| Delactosed Permeate      | _                | 0.78                  |
| Baker's Yeast            | 0.89             | 0.73                  |
| Salt                     | 0.58             | _                     |
| Total                    | 100.00           | 100.00                |

### NUTRITIONAL CONTENT

Control

## **Nutrition Facts**

Serving Size (50g) Servings Per Container

| Amount Per Ser   | rving   |   |   |
|--|---|---|---|
| Calories 140   | ) Cal   | ories fron                                    | n Fat 35                                      |
|  |   | % Da  | aily Value*                                   |
| Total Fat 4g   |   |   | 6%  |
| Saturated  | Fat 2g  |   | 10%   |
| Trans Fat  | 0g  |   |   |
| Cholesterol  | 20mg  |   | 7%  |
| Sodium 150mg   |   |   | 6%  |
| Total Carbo  | hvdrate   | 22g   | 7%  |
| Dietary Fil  |   |   | 4%  |
| Sugars 30  | •   |   |   |
| Protein 5g   | ,   |   |   |
| Totelli og   |   |   |   |
| Vitamin A 2%   | 6.  | Vitamin (                                     | C 0%  |
| Calcium 2%   | •   | Iron 6%                                       |   |
| *Percent Daily V<br>diet. Your daily v<br>depending on yo                                | alues may b   | be higher or                                  |   |
| Total Fat<br>Saturated Fat<br>Cholesterol<br>Sodium<br>Total Carbohydra<br>Dietary Fiber | Less than<br>Less than<br>Less than<br>Less than<br>ate | 65g<br>20g<br>300mg<br>2,400mg<br>300g<br>25g | 80g<br>25g<br>300mg<br>2,400mg<br>375g<br>30g |

#### Reduced Sodium

### Nutrition Facts Serving Size (50g)

Servings Per Container

| Amount Per Se   | rving       |             |             |
|---|-------------|-------------|-------------|
| Calories 13   | 0 Cal       | ories fron  | n Fat 30    |
|   |             | % Da        | aily Value* |
| Total Fat 3g  | 5%          |             |             |
| Saturated Fat 1.5g  |             |             | 8%          |
| Trans Fat   | 0g          |             |             |
| Cholesterol 20mg  |             |             | 7%          |
| Sodium 35mg   |             |             | 1%          |
| Total Carbo   | hydrate     | 19g         | 6%          |
| Dietary Fi  | ber 1g      |             | 4%          |
| Sugars 3g   | ]           |             |             |
| Protein 8g  |             |             |             |
|   |             |             |             |
| Vitamin A 29  | · ·         | Vitamin (   | C 6%        |
| Calcium 4%  | •           | Iron 6%     |             |
| *Percent Daily V<br>diet. Your daily v<br>depending on yo | alues may b | e higher or |             |
| Total Fat   | Less than   | 65g         | 80g         |
| Saturated Fat   | Less than   | 20g         | 25g         |
|   |             | 300ma       | 300mg       |
|   | Less than   |             |             |
| Cholesterol<br>Sodium                                     | Less than   | 2,400mg     | 2,400mg     |
|   | Less than   |             |             |

Fat 9 • Carbohydrate 4 • Protein 4

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

### PREPARATION

- 1. Scald milk (140°F), cool to 100°F.
- 2. Dry-blend bread flour, whole wheat flour, oats and yeast.
- 3. Melt butter.
- 4. Combine cottage cheese, egg, honey, salt, butter and milk; add to dry ingredients and mix at low speed with a dough hook for 12 minutes.
- 5. Oil surface and cover. Allow dough to rise until double in size.
- 6. Form 53g pieces into a roll. Cover and let rise 20 minutes.
- 7. Bake at 400°F on parchment paper-covered baking sheets for 13 to 14 minutes.

Rely on the dynamic lineup of U.S. dairy to meet consumer demands for global product development. The U.S. Dairy Export Council (USDEC) offers resources on **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. (Carter Council) (Carter Council

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

