Honey is a type of sugar produced by bees from the nectar of flowers. It is a readily available sweetener in the grocery and at farm markets. Honey is frequently provided as a USDA commodity food.

Nutritional Value
The composition and flavor of honey depend on the flowers from which the bees gather nectar. Honey has only traces of protein, and of several minerals and vitamins. Spoon for spoon, honey contains more calories than sugar, since it is liquid and heavier than table sugar. One teaspoon of honey contains about 22 calories, compared to 15 calories per teaspoon of sugar.

When a person is on a diet which restricts sugar intake, honey CANNOT take its place. Honey is a type of sugar and must be avoided.

Storage of Honey
- Store honey in a tightly covered container in a dry, dark place.
- Wipe jar clean after each use to avoid attracting insects.
- Do not put in refrigerator, as honey will form crystals and be hard to spread.
- For long-term storage of a year or more, freeze honey to prevent crystals, and help retain flavor and color.
- Honey which has formed sugar crystals is still safe.
- To dissolve crystals, place container in pan of warm water and allow to sit until crystals melt.
- Do not heat honey on stove because it scorches easily.
- Foaming in honey is a result of fermentation by yeast. Honey is still usable during early stages of fermentation. It should be heated to stop the action of the yeast. Warm the honey carefully to 140°F for 15 minutes in a pan of water. Use a thermometer to check the temperature and avoid scorching. DO NOT BOIL THE HONEY.

Substituting Honey for Sugar
1 cup sugar = ¾ to 1 cup honey in sweetness. Omit ¼ cup liquid from recipe.

Tips for Using Honey
- Use honey for sugar in cake recipes by replacing up to one-half the sugar with honey. OMIT ¼ cup liquid (4 tablespoons) from recipe for each cup of honey used, and ADD ¼ teaspoon baking soda. Substituting more than half the sugar in a cake recipe with honey will result in a very heavy, dense cake.
- When honey is used in baking, lower the oven temperature by 25°F to prevent over-browning.
- When substituting honey for sugar in other foods, you may replace one-half the sugar in brownies; one-third the sugar in gingersnaps; and two-thirds the sugar in fruit bars.
- For greatest volume in cakes and quick breads, honey should be added in a slow, thin stream while creaming the shortening.
- To make a moist, tender cake, add 2 tablespoons honey to your favorite cake mix.
Canning with Honey

Honey may be used to replace up to one-half the table sugar when canning fruits. It is important to use a mild-flavored honey that will not hide the flavor of the fruit. The following table gives amounts for canning syrups:

<table>
<thead>
<tr>
<th>Type of syrup</th>
<th>For 4 cups water use:</th>
<th>Cups of syrup</th>
<th>Recommended for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thin</td>
<td>1 cup Sugar 1 cup Honey</td>
<td>5</td>
<td>Sweet berries, cherries and other fruit</td>
</tr>
<tr>
<td>Medium</td>
<td>1 1/2 cups Sugar 1 1/2 cups Honey</td>
<td>5 1/2</td>
<td>Peaches, apples, pears, sour berries</td>
</tr>
<tr>
<td>Heavy</td>
<td>2 1/4 cups Sugar 2 1/4 cups Honey</td>
<td>6</td>
<td>All sour fruits</td>
</tr>
</tbody>
</table>

Mix sugar and honey with water. Heat mixture so sugar dissolves. Keep syrup hot until ready to use. Follow approved directions for canning fruit of choice.

Honeyed Turkey with Rice

6 cups cooked turkey, diced
1/2 cup honey
4 tablespoons prepared mustard
6 tablespoons chicken bouillon
1 cup white rice cooked with 2 cups water

Cook white rice in water. Mix honey, mustard, and bouillon together. When rice has only 10 minutes left to cook, gently combine sauce with diced turkey. Heat in skillet or pan, stirring carefully until turkey is hot. Serve with cooked rice.

Makes 8 servings.

Variation: use cooked chicken in place of turkey.

Prepared by Collette Couchman, Specialist and Judith V. Anderson, Dr. P.H., R.D., Extension Food and Nutrition Specialist, MSU.

Cornbread Honey Muffins

1/3 cup raisins (add more if you like)
boiling water
1 cup cornmeal
1 cup all-purpose flour
3 teaspoons baking powder
1 egg
1 cup milk
1/4 cup melted butter or margarine
1/4 cup honey

Preheat oven to 425°F. Pour boiling water over raisins and allow to sit. Mix cornmeal, flour, and baking powder together. Beat egg, milk, butter or margarine and honey together. Pour into flour mixture. Drain raisins and add to flour mixture. Stir just until moistened—about 8 strokes. Pour into greased or paper-lined muffin pan. Bake at 425°F. for 20-25 minutes, until golden.

Makes about 12 large muffins.

Peanut Butter Honey Balls

1 cup dry milk
1 cup peanut butter
1/2 cup honey
1 cup raisins (if desired)
1/2 cup graham cracker crumbs (if desired)

In medium size bowl, mix together peanut butter, dry milk, honey and raisins (if used). Shape into 1" balls. Roll in graham cracker crumbs or optional coating (below). Chill well. Store in refrigerator or freezer. These store best if wrapped in small pieces of waxed paper.

Makes about 50 balls.

Optional coatings: chopped nuts, confectioner’s sugar