

Cookies

FOR CHILDREN

Marialice Cunningham and Leta G. Maharg



UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION

BULLETIN 656

J. H. LONGWELL, *Director*
COLUMBIA, MISSOURI

JUNE, 1955

COOKIES FOR CHILDREN

MARIALICE CUNNINGHAM AND LETA G. MAHARG

When a hungry girl or boy comes into the kitchen, he usually heads straight for the cookie jar, since children of all ages like cookies. These versatile small cakes may be served for desserts, snacks or tea parties. They can be made so they are "good" for both children and adults. Cookies make a good family food.

GOOD INGREDIENTS MAKE GOOD COOKIES

Foods, so prepared as to retain most of their natural values, are more nourishing than those highly refined. For example, dark brown sugar contains more nutrients (calcium, phosphorus, iron) than highly refined white sugar. Molasses, in addition to its sweetening power, provides iron, calcium, thiamin, riboflavin, and niacin. Also, honey has the same minerals and vitamins as molasses but not in such large quantities.

Whole wheat flour has a higher percentage of protein, calcium, and phosphorus than enriched white flour. All these minerals and vitamins are needed for growth, bone and tooth development, and general well being. Soy flour is an excellent source of protein. The defatted or low fat (5%) is preferred for general use.

Rolled oats is one of the favorite cereals added to cookie dough. It gives texture and flavor and does not become soggy. Uncooked wheat cereals give a texture similar to nuts and add food value at the same time. Shredded ralsston, wheat germ, and shredded wheat biscuit added to sweets and cookies add interest to the texture.

Cookies made from these natural foods help provide the daily food needs. When good ingredients are used, the cookies keep well and give a satisfied feeling when eaten.

Recipes have been developed for various kinds of cookies for different ages of children under research project, No. 163, "Teething Biscuits, and Cookies with High Nutritive Value."

NATURAL FOODS VS REFINED FOODS

"One picture is worth a thousand words," the Chinese say. A quick glance at Figures 1 and 2 should

Acknowledgement.—The authors gratefully acknowledge the valuable assistance in sampling and the suggestions given by Margaret Mangel, professor of home economics and Georgia Amick, associate professor of home economics.

be convincing enough to place whole grain foods and unrefined sugars on your market order.

EAT MILK WITH YOUR COOKIE

Nonfat dry milk solids is included in most of the cookie recipes developed. It is a cheap form of milk, and in some recipes 10 times more milk can be added than could have been used in the liquid form. Cookies may be made a good source of calcium and phosphorus, which all growing children need. Whole dry milk solids may be used if available.

Studies have consistently shown that many children and adults do not get enough calcium in their diets. Using dry milk solids in baked products in addition to fluid milk as a beverage will do much to improve calcium-poor diets.

Cookies may be made with a higher percentage of nonfat dry milk solids than other baked products. The crumb may be coarser, but the quality and nutritive value are high. If for some reason you do not wish to use the quantity of dry milk solids specified in the recipes, replace the milk solids with flour. The two have similar thickening power.

Recently a physician and a dentist reported* experimental evidence that chewing makes teeth more resistant to decay. The naturally sweet foods, raisins, dates, figs, and dried prunes are favored by dentists. Highly sweetened foods may take away the appetite and also favor tooth decay. With these thoughts in mind the recipes for cookies were developed. If you are accustomed to a "rich" cookie, those made from recipes given here may be a pleasing change.

COOKIES ARE EASY TO MAKE

Cookies may be quickly and easily made if correct techniques are used.

Suggestion For Mixing

Have the ingredients at room temperature. They will blend more easily.

Use level measurements.

Vary the amount of flour as needed.

Double acting baking powder makes more uniform cookies.

Nonfat dry milk solids may be measured without sifting.

*Nutrition Reviews, Volume 10, Number 11 1952, p. 333.

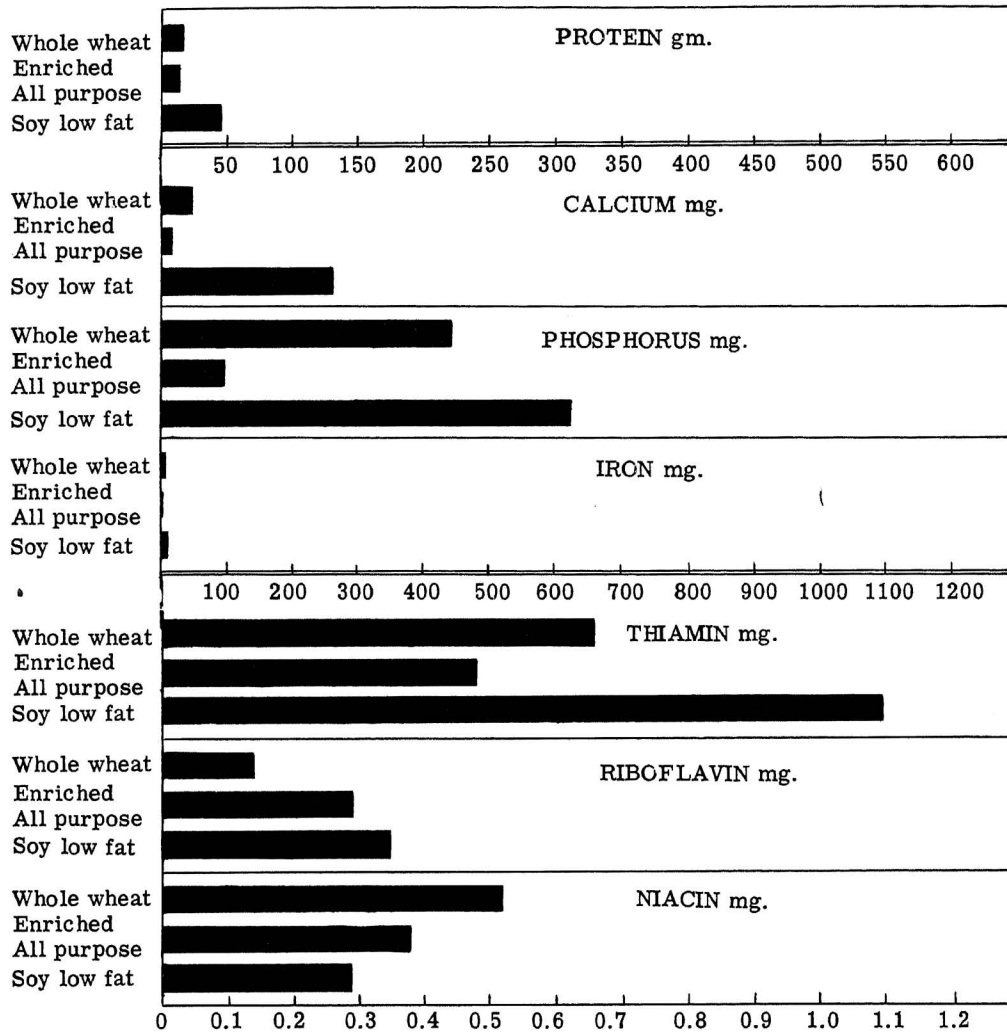


Fig. 1.—Comparison of food nutrients of flours per cup.

Use hydrogenated fat, lard, butter or margarine for shortening.

Quick mix or one bowl method of mixing makes just as good a cookie as when the fat and sugar are creamed.

Correct Baking Is Essential

Baking procedure is an important step in cookie making if results are to be gratifying.

Always have the oven at the specified temperature. Proper temperature helps to insure a good finished product.

Use a bright and shiny cookie sheet or inverted baking pan.

Grease pans lightly for cookies that are low in fat or that contain molasses and a high quantity of milk.

Keep cookies uniform in size and thickness.

Place cookies two inches apart on cookie sheet.

Scrape the baking sheets clean with spatula or wipe with paper towel between batches of the same baking.

Color is often a determining factor for baked products but it is not always a safe guide. Crisp cookies are done when lightly brown.

Cookies containing large quantities of dry milk solids brown quickly and generally require a low baking temperature.

Drop cookies may be tested for doneness by touching lightly with the finger. If no print is left, they are done.

When cookies are done remove them to a cooling rack with a spatula or pancake turner. Allow cookies to cool in single layers. If a cooling rack is not available, place them on brown paper.

Storing Cookies

Storing cookies in the right container helps to

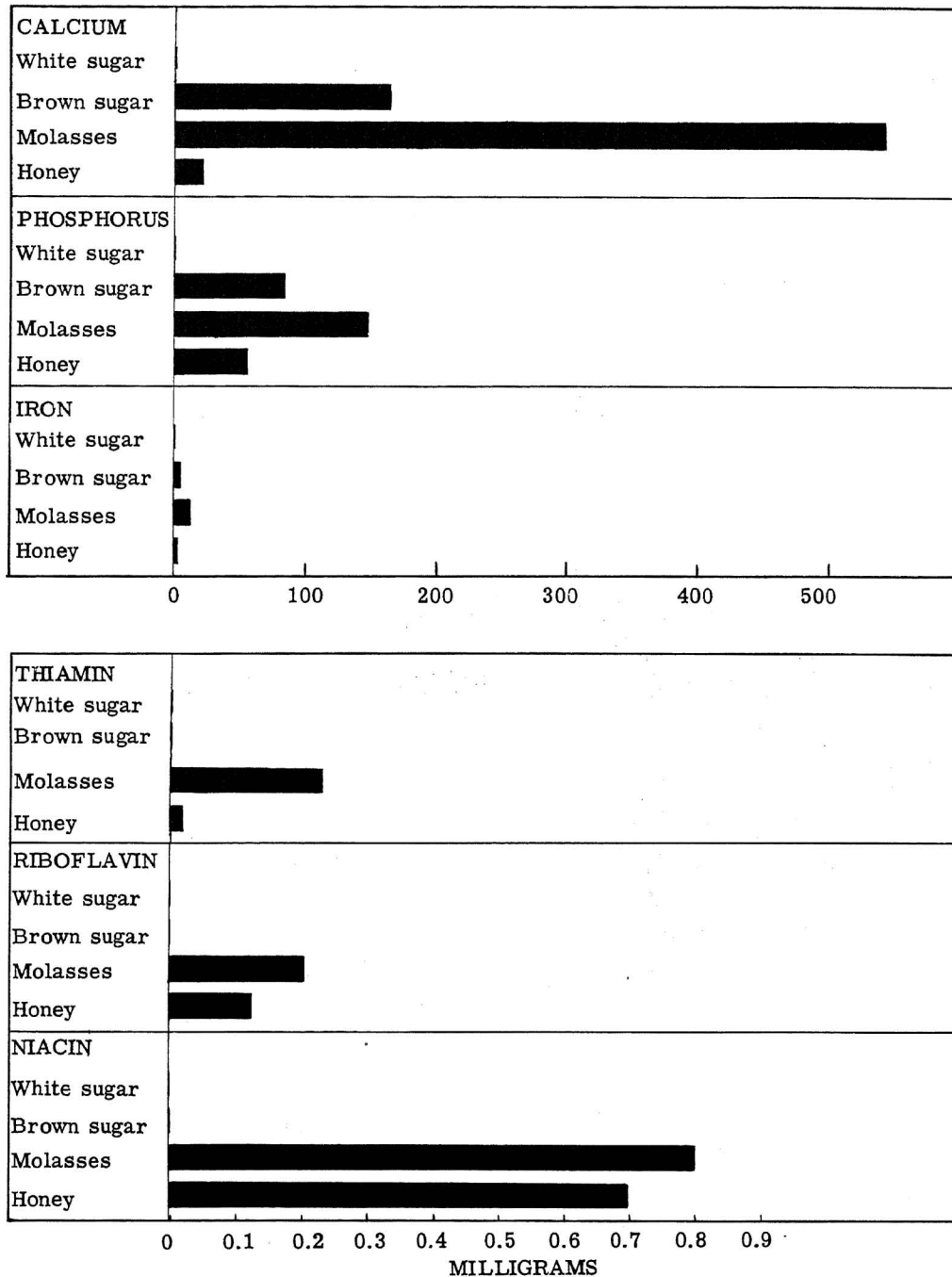


Fig. 2. — Comparison of food nutrients of sweetening agents (natural and refined).

keep the fresh flavor.

Crisp cookies (rolled and icebox) stay crisp if stored in a canister with a loose fitting lid.

Soft cookies (drop) keep moist and stay fresh tasting if kept in a tin cookie box or earthenware cookie jar. A piece of apple or orange will help keep the cookies moist.

Wax paper or aluminum foil should be placed between layers of soft cookies.

Store only one flavor of cookie in a container.

Most baked cookies freeze well. Ice box cookie dough may be wrapped in moisture-vapor-proof paper and stored in a home freezer or locker and baked as desired.

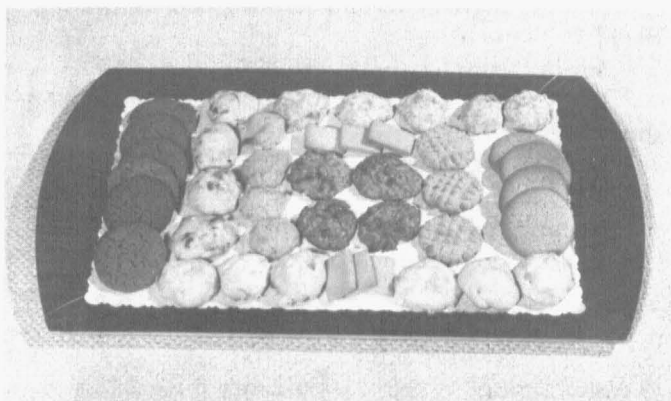


Fig. 3.—These cookies make a good food for the family.

RECIPES*

Big Seven Cookie

(Contains 7 ingredients high in food value)

1/3 c. shortening	1/2 t. salt
1/3 c. brown sugar	1/4 t. soda
1/2 c. molasses	1 t. baking powder
1 egg	1 c. grated carrots or grated raw sweet potato
1/4 c. dry milk solids**	1 t. lemon rind (optional)
1 c. sifted enriched flour	1/2 c. ground raisins
1/4 t. nutmeg	1 1/4 c. quick cook rolled oats
1/4 t. cinnamon	

Heat shortening, sugar and molasses together over low flame until shortening is partly melted, or cream shortening and sugar then add molasses.

Add slightly beaten egg. Stir to blend.

Sift together dry milk solids, flour, spices, salt, soda, and baking powder. Stir into creamed mixture.

Add grated carrot or sweet potato, lemon rind, raisins, and rolled oats. Stir until well mixed. (The dough should be stiff enough to hold its shape on the baking sheets. Chilling the dough for a short time allows the dough to stiffen. Grated sweet potato is drier than grated carrot. If the dough is too stiff, add milk in small quantities to make the dough the right consistency.)

Drop by teaspoonfuls onto a lightly greased cookie sheet.

Bake in hot oven (400° F.), for 15 minutes or until brown.

Yield: 5 dozen 2-inch cookies.

*Abbreviations used: c. for cup; T. for tablespoon; t. for teaspoon.

**Dry milk solids mentioned in this bulletin refer to non-fat dry milk solids.

Fruit Cookies

(Applesauce, pineapple, peach)

1/2 c. sugar	1/2 t. salt
1/2 c. shortening	2 c. sifted enriched flour
1 egg	2 t. baking powder
3/4 c. fruit*	1 c. quick cook rolled oats
1/2 t. cinnamon or	or
1 t. vanilla when pineapple is used	1 c. gum drops, cut in small pieces
	1 c. raisins, whole or ground

Cream sugar and shortening. Add slightly beaten egg and fruit. Mix well. (Applesauce gives a stronger fruit flavor than the other fruits.)

Sift together cinnamon, salt, flour, and baking powder. Stir into fruit mixture.

Stir in rolled oats or gum drops. If large gum drops are used, cut into small pieces first. The small spice drops may be added as they come from the package. If cereal is preferred to gumdrops, stir in last.

Add raisins. Flouring is not necessary.

Dough should be of drop consistency. If too thick add more fruit.

Drop by teaspoonfuls onto lightly greased baking sheet.

Bake in hot oven (400° F.), for 15 to 20 minutes or until light brown in color.

Yield: 4 dozen 2-inch cookies.

Golden Yellow Cookie

(Sweet potato, carrot, or pumpkin)

A cookie high in milk content and vitamin A with many variations of flavorings.

1/3 c. shortening	1 c. sifted enriched flour
3/4 c. brown sugar	3 t. baking powder
2 eggs, slightly beaten	1 t. salt
1 c. mashed or pureed cooked sweet potato ¹ , carrot ² , or pumpkin ³	1 c. dry milk solids
	Flavoring†

†Variations of Flavorings:

¹Sweet Potato

1/2 c. chopped uncooked prunes, 1/2 t. lemon extract or 1/2 c. chopped raisins, 1/2 t. cinnamon, 1/4 t. nutmeg or 1 t. lemon extract, 1/4 c. rolled oats, 2 t. grated orange peel.

Simmer unpeeled sweet potato in water until tender, or bake in moderate oven. Peel and mash or puree until fine. Also, canned sweet potatoes mashed may be used.

²Carrot

1/2 c. chopped raisins, 1/4 c. rolled oats, 1/2 t. vanil-

*Thick applesauce, crushed pineapple, or canned peaches that have been drained and mashed fine with a fork.

la, 2 t. grated orange peel.

Scrape carrots and cook until tender in a small amount of water. Mash.

³Pumpkin

½ t. cinnamon, ¼ t. nutmeg, ½ c. ground raisins, ½ c. drained crushed pineapple, ½ t. vanilla.

Use canned pumpkin or home cooked. If pumpkin is home cooked, peel and simmer in a small amount of water, or bake in covered casserole in moderate oven (350° F.), Mash.

Cream shortening, sugar, egg, and mashed vegetable until fluffy. Sift together flour, baking powder, salt, and dry milk solids. Add to creamed mixture, and blend.

Stir in desired flavorings. Spices may be added to dry ingredients.

Drop by rounded teaspoonfuls onto greased baking sheet about 2 inches apart.

Bake in moderate oven (350° F.), about 15 minutes or until light brown.

Yield: 6 dozen 2-inch cookies.

Cereal Cookie

½ c. shortening	2 t. baking powder
½ c. sugar	½ t. salt
1 egg	¾ c. sifted enriched flour
1 t. vanilla	½ c. raisins, whole or ground
2 T. milk	½ c. coco-wheat uncooked
¼ c. dry milk solids	cereal or a malt flavored uncooked cereal

Cream the shortening and sugar.

Add slightly beaten egg, vanilla, and milk.

Sift together the dry milk solids, baking powder, salt, and flour. Stir into creamed mixture.

Add raisins and uncooked cereal. If chocolate flavor is desired, add 1 tablespoon of cocoa to dry ingredients and remove 1 tablespoon of flour.

Dough is soft for dropping, but thickens upon setting or chilling.

Drop by teaspoonfuls onto greased baking sheet.

Bake in moderate oven (350° F.) approximately 20 minutes or until the cookies are a golden brown.

Yield: 4 dozen 2-inch cookies.

Honey Whole Wheat Cookie

½ c. shortening	3 t. baking powder
½ c. sugar	½ t. salt
½ c. honey, strained	½ c. dry milk solids
2 eggs	½ to 1 c. raisins (chop or grind)
1 ¾ c. whole wheat flour, or	
1 c. whole wheat flour and	
¾ c. sifted enriched flour	

Cream together shortening, sugar, and honey. Add unbeaten eggs and stir until well blended.

Mix dry ingredients and add to creamed mixture. Blend.

Stir in raisins.

Drop by teaspoonfuls onto lightly greased baking sheet.

Bake in moderate oven (350° F.), for 12 to 15 minutes.

Remove to cooling rack or paper.

Yield: 5 dozen 2-inch cookies.

Molasses Whole Wheat Cookie

(No refined sugars)

½ c. shortening	½ c. dry milk solids
¾ c. molasses	½ t. baking soda
1 t. vanilla	2 t. baking powder
2 eggs, slightly beaten	½ t. salt
1 c. plus 2 T. whole wheat flour, or	½ c. raisins (grind if preferred)
¾ c. whole wheat flour and	
½ c. sifted enriched flour	

Cream together shortening, molasses, and vanilla; or heat fat and molasses until fat is melted. Add vanilla.

Add eggs, and mix well.

Sift together dry milk solids, soda, baking powder, and salt, if all whole wheat is used. Stir in whole wheat flour. If part white flour is used, sift with dry ingredients.

Add dry ingredients to creamed mixture. Mix well.

Stir in raisins.

Drop by teaspoonfuls onto greased baking sheet. (This makes a soft dough. If the dough is stiff a dry cookie will result.)

Bake in moderate oven (350° F.), until golden brown (approximately 15 minutes).

Remove to cooling rack.

Yield: 4 dozen 2-inch cookies.

Peanut Butter Molasses Cookie

½ c. peanut butter	1 c. sifted enriched flour
¼ c. shortening	½ t. salt
½ c. molasses	1 t. baking powder
½ t. vanilla	¼ t. soda
¼ c. brown sugar	1 c. raisins, dried apricots, or prunes (chop or grind)
1 egg	
2 T. milk	

Cream together the peanut butter, shortening, molasses, vanilla, and sugar.

Add the unbeaten egg and mix thoroughly.

Stir in the milk.

Sift together flour, salt, baking powder, and soda. Add to creamed mixture, and mix well.

Stir in dried fruit.

Drop by teaspoonfuls onto lightly greased baking sheet.

Bake in moderately hot oven (375° F.), 10-15 minutes, or until golden brown.

Remove from baking sheet to cooling rack.

Store in tight container. This cookie remains moist in storage.

Yield: 5 dozen 2-inch cookies.

Soft Molasses Cookie

½ c. shortening	2 t. salt
1 c. brown sugar	¼ t. cloves
1 c. molasses	1 t. cinnamon
1-2 egg, unbeaten	4 c. sifted enriched flour
1 c. milk (water may be used if dry milk is added)	or
2 t. soda	3 c. flour and 1 c. dry milk solids

Cream the shortening, sugar, and molasses. Shortening may be heated enough to soften if desired.

Add egg and mix thoroughly.

Sift together the dry ingredients. Add alternately with fluid milk or water. Stir well.

Drop by teaspoonfuls onto a lightly greased baking sheet.

Bake in moderate oven (375° F.), 12-15 minutes, or until golden brown in color.

Remove to cooling rack.

Yield: 8 dozen 2-inch cookies.

Molasses Ginger Cookie

1 c. shortening	and
1½ c. molasses	1 c. dry milk solids
¼ c. sugar	1½ t. salt
1 egg, unbeaten	2 t. soda
4 c. sifted enriched flour	1 t. cinnamon
or	1 t. ginger
3 c. sifted enriched flour	¼ t. cloves

Cream together shortening, molasses, and sugar. Shortening may be heated slightly to soften if desired.

Stir in egg.

Sift together dry ingredients. Add to creamed mixture. Mix well.

Shape into 1¼ inch balls and flatten slightly, or drop from a teaspoon onto a lightly greased cookie sheet.

Bake in moderate oven (375° F.), for approximately 15 minutes, or until light brown in color.

Cool on rack or brown paper.

Yield: 7-8 dozen 2-inch cookies.

Peanut Butter Cookie

½ c. peanut butter	¼ t. salt
½ c. brown sugar	1 c. sifted enriched flour

¼ c. shortening

½ t. vanilla

1 egg, unbeaten

2 T. milk

1 t. baking powder

¼ c. dry milk solids

(optional)

½ c. raisins (if desired)

Cream together peanut butter, sugar, shortening, and vanilla.

Add egg, and stir.

Sift together salt, flour, baking powder, and dry milk solids. Add alternately with the milk. Stir until well blended.

Stir in raisins.

Drop by teaspoonfuls onto an ungreased cookie sheet, or roll into 1½ inch balls and flatten with a fork. If raisins are added, cookies will have to be dropped.

Bake in moderate oven (350° F.) until light brown in color.

Remove to cooling rack or brown paper.

Yield: 3 dozen 2-inch cookies.

FIGURES PROVE FACTS!

Cookies made with whole wheat and natural sweets contain more minerals and vitamins than cookies made with the usual ingredients. Vitamin A content of the diet is increased when yellow vegetables (carrot, sweet potato or pumpkin) are a part of the recipe. (See Table 1, page 8.)

The Big Seven Cookie could well be called a "meal-in-one" cookie.

TEETHING COOKIES FOR THE BABY

The youngest member in the family likes cookies, too. A baby three months old starts chewing something, partly to help cut his teeth, and also to satisfy his hunger.

A cookie or wafer that is firm to hard and does not crumble seems to satisfy the "teether" best. The commercial arrowroot wafers and graham crackers taste good but add little to the diet and require little chewing.

The recipes for the teething cookies should meet most of the baby's needs or likes. Use the recipes containing egg if your baby can digest egg and if your doctor says it is all right for him. Cookies made with molasses increase the mineral content, especially iron. The infant at birth has an extra amount of iron stored in his body. He may soon need to start getting his own iron from his food, since the amount of iron stored may vary with individuals.

Older children like these cookies, also. They keep crisp in an earthenware cookie jar; or the dough may be frozen and baked when convenient.

TABLE 1 -- COMPARISON OF THE FOOD NUTRIENTS OF DIFFERENT COOKIES

Cookies	Calories	Calcium (Mg)	Phos- phorous (Mg)	Iron (Mg)	Vitamin A (IU)	Thiamin (Mg)	Ribo- flavin (Mg)	Niacin (Mg)	Ascorbic Acid (Mg)
Sugar Cookie 2"	48.44	2.67	7.11	.089	-----	.004	.004	.044	.0
Fruit Cookie (Applesauce) 2"	59.28	4.73	16.74	.348	13.65	.035	.020	.186	.044
Golden Yellow Cookie (Sweet Potato) 2"	34.59	25.84	24.05	.180	292.0	.016	.043	.09	.57
Molasses Whole Wheat Cookie 2"	44.87	27.11	30.71	.414	23.3	.027	.037	.151	.09
Big 7 Cookie 2"	41.81	15.30	19.27	.361	230.04	.026	.023	.111	.154

Results calculated for 1 cookie from Agriculture Handbook #8.

TEETHING COOKIES

(Recipes for 4 different teething cookies with slight variations.)

Egg Yolk and Molasses

2 T. shortening 1 t. vanilla
2 T. brown sugar 1 c. minus 2 T. sifted en-
2 T. molasses, medium riched flour
dark ¼ t. salt
1 egg yolk, slightly beaten 1½ t. baking powder

Cream the shortening and sugar, or melt the fat and add the sugar. A fine grain and well blended cookie may be made by either method.

Add molasses and egg, if included in the recipe. Stir in vanilla.

Sift together the dry ingredients and mix into sugar mixture.

Roll to ¼ inch thickness. Cut into rectangular pieces, 1 x 1½ inches. This eliminates rerolling dough and makes a nice size for the baby.

Place on ungreased cookie sheet.

Bake in a moderate oven (350° F.), for 15 to 20 minutes or until lightly browned.

Yield: Fifty 2-inch cookies.

This recipe makes a stiff dough to roll immediately and bake or chill and bake later. It may be made into

1 inch roll and stored to bake as ice box cookies at mother's convenience. Slice and bake.

Variations: 1 tablespoon soy flour or 2 tablespoons wheat germ may be used to increase the food value. Remove the same amount of enriched flour from the recipe.

Molasses—No Egg

2 T. shortening 1 T. milk
2 T. brown sugar 1 c. minus 2 T. sifted en-
2 T. molasses (medium riched flour
dark) ¼ t. salt
1 t. vanilla 1½ t. baking powder

Directions same as for first teething cookie recipe.

Whole Egg—No Molasses

2 T. shortening 1 c. sifted enriched flour
¼ c. brown sugar ¼ t. salt
1 egg, slightly beaten 1½ t. baking powder
1 t. vanilla

Directions same as for first recipe.

Egg Yolk—No Molasses

2 T. shortening 1 c. minus 2 T. sifted en-
¼ c. brown sugar riched flour
1 egg yolk ¼ t. salt
1 t. vanilla 1½ t. baking powder

Directions same as for first recipe.