Family meals are fun to prepare when you know how. Throughout this project you will:

- Become familiar with and use available information to make food purchasing decisions.
- Evaluate the calorie content of the foods you prepare, serve, and eat, and consider your calorie needs for proper weight.
- Acquire food preparation skills, especially in cooking meat and vegetables.
- Acquire management skills.
- Become aware of the importance of evaluating nutrition information.
- Use safe food handling practices.
- Find and use additional reference materials and resources.

**IT'S FUN TO READ**

Here is a list of publications you will find helpful:

*Better Homes and Gardens New Cookbook.* Meredith Press, Des Moines, Iowa.


A Favorite Beef Dinner

MEAT IN YOUR MEAL

Meat Tenderness
Meat tenderness varies with the location of the cut on the carcass. Parts along the animal's back are more tender than parts that receive a lot of exercise, such as the legs and neck.

Tender cuts with little connective tissue are most palatable when cooked in dry heat by broiling, pan-broiling, or roasting. Beware of overcooking, however. It will make the meat hard and dry. Less tender cuts require moist heat (braising, cooking in foil or bags, stewing, pressure cooking) to change the connective tissue to gelatin.

To determine the structure of meat and how heat affects lean connective tissue and fat, try this experiment with a piece of meat from the round.

1. Using a blunt knife, scrape all the lean from 1/4 pound of thinly cut round steak. Make a small patty out of the lean.
2. Divide the connective tissue into three pieces of equal size.
3. Place the patty, one piece of the connective tissue, and any fat on a piece of aluminum foil. Broil until lean is medium well done.
4. Place another piece of connective tissue in a small saucepan. Simmer for 30 minutes in water.
5. Keep the last piece of connective tissue to compare with the other two pieces.

Now try to answer the following questions: What is the effect of dry heat on connective tissue? What is the effect of moist heat? How would you rank the shrinkage and tenderness of the three connective tissues? Taste the cooked patty, fat, and connective tissue. How does each part of the meat contribute to flavor?

Study New Labels on Fresh Meat (Food Science and Nutrition Fact Sheet 19) and Retail Cuts of Meat (Extension Bulletin 393) to learn the correct methods for cooking the meat you buy. See page 18 for information on ordering these publications.

Cooking Meat
Properly cooked meat is tender, juicy, and attractive in color and texture, and it smells delicious. Here are some ways to cook meat.

Dry Heat Methods
1. Broiling: Tender cuts of meat and meat tenderized by grinding are suitable for broiling: beef porterhouse, T-bone, sirloin, rib steaks, and

Meal No. 1
Braised Beef Chuck with Onions, Carrots, and Potatoes
Citrus-Apple Salad with Honey-Lemon Juice Dressing
Enriched White Bread Butter
Ice Cream
Milk Coffee
Approximate times and internal temperatures for roasting meats in a 325° F. oven

<table>
<thead>
<tr>
<th>Meat for roasting</th>
<th>Ready-to-cook weight, pounds</th>
<th>Cooking time, minutes per pound</th>
<th>Internal temperature of meat when done, degrees F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standing ribs</td>
<td>6-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rare</td>
<td></td>
<td>23-25</td>
<td>140</td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td>27-30</td>
<td>160</td>
</tr>
<tr>
<td>Well done</td>
<td></td>
<td>32-35</td>
<td>170</td>
</tr>
<tr>
<td>Boned and rolled</td>
<td></td>
<td>Add 15 minutes per pound to above figures</td>
<td>140-170</td>
</tr>
<tr>
<td>Lamb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leg</td>
<td>6-7</td>
<td>30-35</td>
<td>170-180</td>
</tr>
<tr>
<td>Shoulder</td>
<td>4-6</td>
<td>30-35</td>
<td>175-180</td>
</tr>
<tr>
<td>Loin</td>
<td>4½-5</td>
<td>30-35</td>
<td>175-180</td>
</tr>
<tr>
<td>Boned</td>
<td></td>
<td>Add 10 minutes per pound to above figures</td>
<td>175-180</td>
</tr>
<tr>
<td>Pork, fresh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loin</td>
<td>4-5</td>
<td>35-40</td>
<td>170</td>
</tr>
<tr>
<td>Shoulder</td>
<td>4-6</td>
<td>30-35</td>
<td>170</td>
</tr>
<tr>
<td>Boned and rolled</td>
<td></td>
<td>Add 10 minutes per pound to above figures</td>
<td>170</td>
</tr>
<tr>
<td>Ham, fresh</td>
<td>10-14</td>
<td>30-35</td>
<td>170</td>
</tr>
<tr>
<td>Spareribs, one side</td>
<td>1½-2½</td>
<td>40</td>
<td>185</td>
</tr>
<tr>
<td>Pork, smoked (not precooked)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ham, whole</td>
<td>10-14</td>
<td>18-20</td>
<td>160</td>
</tr>
<tr>
<td>Ham, half</td>
<td>5-7</td>
<td>22-25</td>
<td>160</td>
</tr>
<tr>
<td>Shoulder</td>
<td>5-8</td>
<td>35</td>
<td>170</td>
</tr>
</tbody>
</table>

* For fully cooked, ready-to-eat hams and shoulders, follow directions on package.

ground beef; most lamb cuts; smoked and cured ham steaks; Canadian bacon; and bacon. Place meat on a rack under the broiler unit of a gas or electric range. The distance between the meat and the burner depends on the range, meat thickness, amount of fat, and desired doneness.

2. Pan-broiling: This method is suitable for the tender cuts listed under broiling. When pan-broiling, rub a bit of fat over the bottom of a hot frying pan. Select a heavy pan, as it will retain heat well. Cook meat on one side until it is half done. Turn it and cook the other side. Pour off fat as it accumulates in the pan.

3. Oven Roasting: You can also oven roast tender cuts of beef, lamb, veal, or pork. Place the meat, fat side up, on a rack in a shallow pan. Roast at a low temperature. Don't cover the meat or add water. Cook until a meat thermometer registers the correct temperature. See the chart below for approximate times and internal temperatures for roasting meat.

4. Deep Fat Frying: Follow directions in recipes or directions that came with your deep fat fryer.

Moist Heat Methods

1. Braising: Flour meat if desired and brown it slowly on all sides in hot fat. Pour off excess fat. Add seasoning and a small amount of liquid, broth, or juice. Cover meat tightly and simmer it in the oven or on a surface unit.

2. Foil Wrap or Cooking Bags: Surrounding the meat with foil or a cooking bag creates a moist cooking environment. Do not, however, use this method for rib roasts or turkeys, since the full flavor of those meats will develop only with dry heat methods.
3. Stewing: After browning, cover the meat with liquid and simmer with seasoning and vegetables.

4. Pressure Cooking: Follow the directions that came with your pressure cooker.

**PURCHASING MEAT**

The cost of meat is becoming an increasingly important consumer concern. If you know the number of servings you can get from a pound of meat, you can estimate the amount of meat to purchase and determine which cuts are a good buy. In the chart below, one serving equals 2-3 ounces of lean, cooked meat. Of the meats you ate last week, which one cost least per serving?

<table>
<thead>
<tr>
<th>4 servings per pound: cuts with no bone and little fat or connective tissue</th>
<th>2 servings per pound: cuts with medium amounts of bone, gristle, and fat</th>
</tr>
</thead>
<tbody>
<tr>
<td>ground meat</td>
<td>chuck roast</td>
</tr>
<tr>
<td>stew meat</td>
<td>rib or loin chops, steaks or roasts (beef or pork)</td>
</tr>
<tr>
<td>liver</td>
<td>chicken and turkey</td>
</tr>
<tr>
<td>fish fillets</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3 servings per pound: cuts with small amounts of bone, fat, or connective tissue</th>
<th>1 serving per pound: cuts with large amounts of bone, gristle, and fat</th>
</tr>
</thead>
<tbody>
<tr>
<td>round steak</td>
<td>spare ribs</td>
</tr>
<tr>
<td>center cut ham slices</td>
<td>short ribs</td>
</tr>
</tbody>
</table>

**RECIPES**

**Braised Beef Chuck**

(6 servings)

3 pounds beef chuck, blade or arm cut

Flour
1 tablespoon oil
2 teaspoons salt
Pepper
Water
6 medium carrots
4-6 medium potatoes
Onions

Wipe meat with a damp cloth. Dip meat in flour. Brown it on all sides in hot fat in a deep heavy pan. Add salt and pepper to taste.

Add 1/2 cup water and cover pan tightly. Cook slowly over low heat until done (about 3 hours). Add more water as needed.

About 45 minutes before you expect the roast to be done, add vegetables. Scrape carrots and cut them in half lengthwise. Peel potatoes and cut them in half; cut onions in pieces. Sprinkle vegetables with additional salt. To reduce the number of calories, boil the vegetables instead of cooking them with the meat.

When the vegetables are tender and the roast is done, remove the meat, skim off the fat, and make gravy with the liquid.

**Fruit Salad**

You can use many different ingredients when preparing a fruit salad. Select fruits that are in season and that fit your budget and family preferences. Here are some suggested combinations of fruits for salad (more are listed in *All American Foods*, 4-H Bulletin 73):

- Grapefruit, apple, and orange sections with honey-lemon juice dressing.
- Melon balls (cantaloupe, watermelon, honeydew) with honey-lemon juice dressing.
- Apples, celery, and table grapes with mayonnaise or mayonnaise-type dressing.
• Grapefruit, pomegranate, and green pepper with sweet French dressing.
• Bananas, grapes, pineapple chunks, and marshmallows with mayonnaise dressing.

Honey-Lemon Juice Dressing
(6 servings)

\[
\frac{1}{3} \text{ cup lemon juice} \\
\frac{1}{3} \text{ cup honey} \\
\frac{1}{4} \text{ teaspoon salt} \\
\frac{1}{2} \text{ teaspoon celery seed, if desired}
\]

Combine these ingredients and spoon the dressing over your fruit salad.

Rate Your Fruit Salad
• Is it attractive in color and appearance?
• Was fruit carefully washed?
• Is it the right size for the plate?
• Are fruits in bite-sized pieces or easy-to-cut pieces?
• Are fruits crisp and cold?
• Are greens crisp?
• Is the dressing the right consistency?
• Does it taste good?

Meal No. 2
Cheese Soufflé
Buttered Spinach
Sliced Tomatoes and Celery Sticks
Whole Wheat Bread  Butter
Apple Pie
Milk  Coffee

PLANNING NUTRITION IN YOUR MEALS
By now, you are familiar with the Daily Food Guide (shown on page 7). When planning each day's meals, choose foods that will provide the recommended number of servings from the food groups. Then choose additional foods to round out your meals: select foods in the four groups and other foods such as butter and sugar.

These additional foods should provide enough calories to complete your food needs for a day. As a young person, you require calories to support normal growth and maintain normal weight. Adults need calories to keep their body weight at a level favorable to good health.

These selected foods supply the essential nutrients: proteins, carbohydrates, fats, minerals, and vitamins. Essential nutrients provide protein for the building and repair of your body, calories for your body's energy and warmth, and vitamins and minerals that enable your body to function properly.

COUNT THOSE CALORIES
Many factors—body size, age, activity, ability to utilize food, and climate—determine the number of calories a person requires each day. If you consume too many calories, you will become overweight. And overweight young people often grow into overweight adults. Physical activity—whether it is work, athletics, exercises, or recreation—contributes to fitness as well as to weight control.

Average servings of this luncheon might provide too many calories for you. If so, serve small portions or make substitutions. A baked apple or fruit cup, for instance, contains fewer calories than apple pie does. See appendix A for calorie content of menu items.

Usually, you should not prepare special foods just for overweight or underweight members of your family. For overweight individuals, simply provide small servings or cut down on foods that contain considerable fat such as gravies, toppings, and salad dressing. For the underweight person, provide generous servings and high calorie foods.
If you want to count calories in your meals, obtain the necessary information from your county extension office or your local library. Three publications you may want to obtain are *Food and Your Weight* (Home and Garden Bulletin 7), *You and Your Weight* (HS-33), and *Calories and Weight: The USDA Pocket Guide* (Home and Garden Bulletin 153). See page 18 for ordering information.

**DESSERTS AND SNACKS REQUIRE THOUGHT**

Many people like to finish their meals with something sweet, but many desserts are high in calories and low in nutrients. Some desserts, however, do furnish minerals, vitamins, and protein as well as calories. Remember that serving size can make a lot of difference in the number of calories you eat. The difference between one and three cookies, for example, is three times the number of calories.

What you eat between meals often contributes more to your caloric intake than your breakfast does. Also, eating frequently without cleaning your teeth causes dental caries (tooth decay).

Plan desserts and snacks that provide nutrients and that are appropriate for your calorie needs.

<table>
<thead>
<tr>
<th>Desserts and snacks that contribute significant amounts of nutrients</th>
<th>Food</th>
<th>Serving size</th>
<th>Nutrients</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green pepper</td>
<td>1 medium</td>
<td>Vitamin C, carbohydrate</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Carrot</td>
<td>7 1/2 x 1 3/4 inches</td>
<td>Vitamin A, carbohydrate</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Cheese, American processed</td>
<td>1 ounce</td>
<td>Protein, calcium, vitamin A, fat</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>Watermelon</td>
<td>1 2-pound wedge</td>
<td>Vitamin A, vitamin C</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Pizza</td>
<td>5 1/2-inch wedge of 13 3/4-inch pie</td>
<td>Carbohydrate, fat, protein, vitamin A, calcium</td>
<td>155</td>
<td></td>
</tr>
<tr>
<td>Ice cream</td>
<td>1 cup</td>
<td>Protein, fat, carbohydrate, calcium, vitamin A</td>
<td>255</td>
<td></td>
</tr>
<tr>
<td>Baked custard</td>
<td>1 cup</td>
<td>Protein, fat, carbohydrate, calcium, vitamin A</td>
<td>305</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Desserts and snacks that contribute few nutrients</th>
<th>Food</th>
<th>Serving size</th>
<th>Nutrients</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radishes</td>
<td>5</td>
<td>Very few nutrients</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Celery</td>
<td>3 5-inch stalks</td>
<td>Very few nutrients</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Chocolate chip cookies</td>
<td>1 2 3/4-inch cookie</td>
<td>Carbohydrate</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Potato chips</td>
<td>10 1 3/4 x 2 1/2-inch chips</td>
<td>Carbohydrate</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>Cola beverages</td>
<td>12-ounce can or bottle</td>
<td>Carbohydrate</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Chocolate candy bar</td>
<td>1-ounce bar</td>
<td>Carbohydrate, fat</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Chocolate cake/icing</td>
<td>1 3/4-inch slice of 9-inch round cake</td>
<td>Carbohydrate, very little else</td>
<td>235</td>
<td></td>
</tr>
<tr>
<td>Apple pie</td>
<td>1/8 of 9-inch pie</td>
<td>Carbohydrate, very little else</td>
<td>300</td>
<td></td>
</tr>
</tbody>
</table>

**MANAGING MEAL PREPARATION**

Ready-to-eat and convenience foods have changed food preparation. Today, special occasions may be the only times you really need to plan details and organize everything from your oven space to your serving dishes. Taking the time to plan can make the difference in whether you have time to enjoy the people you are entertaining. You may do many things automatically, but the more important the occasion, the more careful your planning needs
FOLLOW THE FOOD GUIDE EVERY DAY

Milk Group
COUNT AS A SERVING 1 CUP OF MILK
- Some for everyone
  - Milk Group
    - Count as a serving 1 cup of milk
    - Children under 9
    - To
    - Adults
    - Or more
    - Children 9-12
    - Or more
    - Pregnant Women
    - Or more
    - Teenagers
    - Or more
    - Nursing Mothers
    - Cheese can be used for part of the milk

Meat Group
COUNT AS A SERVING 2 OR 3 OUNCES OF COOKED LEAN MEAT, POULTRY OR FISH — SUCH AS
- A hamburger
- Or a chicken leg
- Or a fish
- Also 2 eggs
  - Or 1 cup cooked dry beans or peas
  - Or 4 tablespoons peanut butter

Fruit & Vegetables Group
COUNT AS A SERVING 1/2 CUP (RAW OR COOKED)
- Or 1 portion such as
  - Or

Bread & Cereal Group
COUNT AS A SERVING (WHOLE GRAIN OR ENRICHED)
- 1 slice of bread or 1 biscuit
- Or 1 ounce ready-to-eat cereal
- Or 1/2 cup to 3/4 cup cooked cereal, cornmeal, grits, macaroni, rice, or spaghetti

Eat other foods as needed to round out meals.
to be. Do the following as you plan.

1. Select your menu and recipes several days ahead. Determine how you will serve the meal — buffet, sit-down, etc.
2. Check what food you have on hand; shop for the groceries you will need.
3. Make sure you have all the equipment and appliances you will need.
4. Plan which dishes you will use for serving each item; plan your table seating arrangements.
5. Decide whether you will want or need help. Some small kitchens don't have space for helpers.

Let's use this menu to set up a suggested timetable for a Saturday lunch for three friends. Your experience will guide you in knowing how much time you need. For example, how long does it take you to prepare an apple pie for the oven?

After you tell your guests what time they are to arrive (1:00), think things through backward with 1:15 as your goal for serving lunch. Remember that cheese soufflé and homemade apple pie require advance planning and preparation time.

<table>
<thead>
<tr>
<th>Time allowed</th>
<th>Things to do</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-20 minutes</td>
<td>• Peel tomatoes and clean celery; refrigerate them.</td>
<td>9:30 a.m.</td>
</tr>
<tr>
<td></td>
<td>• Prepare apple pie.</td>
<td>10:00</td>
</tr>
<tr>
<td>1 hour</td>
<td>• Put pie in oven (425°). Set timer for 10 minutes.</td>
<td>11:15</td>
</tr>
<tr>
<td></td>
<td>• Prepare soufflé.</td>
<td>11:15</td>
</tr>
<tr>
<td></td>
<td>• Reduce oven temperature to 325°.</td>
<td>11:25</td>
</tr>
<tr>
<td></td>
<td>• Take pie out.</td>
<td>12:15 p.m.</td>
</tr>
<tr>
<td>1 hour</td>
<td>• Put soufflé in oven at 325°.</td>
<td>12:15</td>
</tr>
<tr>
<td></td>
<td>• Set table.</td>
<td>12:30</td>
</tr>
<tr>
<td></td>
<td>• Dress for luncheon.</td>
<td>After guests arrive.</td>
</tr>
<tr>
<td></td>
<td>• Put celery and tomatoes on table.</td>
<td></td>
</tr>
<tr>
<td>10-15 minutes</td>
<td>• Cook frozen spinach.</td>
<td>1:15 (Hope your guests are on time.)</td>
</tr>
<tr>
<td></td>
<td>• Make coffee.</td>
<td>1:16</td>
</tr>
<tr>
<td></td>
<td>• Put bread and butter on table.</td>
<td>As needed.</td>
</tr>
<tr>
<td></td>
<td>• Pour beverages; put spinach on table.</td>
<td>When meal is over.</td>
</tr>
<tr>
<td></td>
<td>• Call guests to table.</td>
<td>After guests leave.</td>
</tr>
</tbody>
</table>
To make a thick white sauce, melt butter over low heat in a heavy saucepan. A wooden spoon for stirring is helpful. Blend in flour, salt, and other seasonings. Cook over low heat until mixture is smooth and bubbly. Remove from heat. Stir in milk. Bring to boil, stirring constantly. Boil about 1 minute to eliminate the chances of a raw starchy flavor.

Stir shredded cheese into the hot white sauce. Stir until cheese melts. Remove from heat.

Beat egg yolks until they are thick and lemon colored. Slowly add cheese mixture to well beaten egg yolks.

Beat egg whites and 1/4 teaspoon cream of tartar until stiff. Cream of tartar increases the stability of the foam and makes the product more tender. The stiffly beaten egg whites should have upright peaks but still be moist and glossy. Fold slightly cooled cheese mixture into beaten egg whites.

Pour into an ungreased 1 1/2-quart baking dish. For a high hat on your soufflé, make a groove with a spatula by running it around the dish about 1 inch from the edge and 1 inch deep.

Set baking dish in a pan of hot water (1 inch deep) on oven rack. The water promotes even heat distribution.

Bake at 350° F. for 50-60 minutes until the soufflé is puffed and golden brown or until a knife comes out clean. Serve immediately to waiting people. Break apart into servings with two forks. You may want to serve a mushroom sauce with the soufflé.

Plain Pastry for Two Crust Pie
(One 9-inch pie: 6-8 servings)
1 1/2 cups sifted all-purpose flour
1/2 teaspoon salt
1/2 cup vegetable shortening or lard
1 tablespoon butter, if desired
4-5 tablespoons cold water or milk

Mix flour and salt. Cut in half of shortening with a pastry blender until it is the consistency of fine meal. Then cut in remaining shortening and butter to the size of peas.

Add liquid a little at a time, tossing flour mixture lightly with a fork to moisten it evenly. When all the flour is moist, press pastry into a ball.

Divide the pastry in half, using slightly more of the pastry for the bottom crust than for the top.

Shape pastry into a ball without cracks. Flatten ball with a rolling pin on a lightly floured canvas. With light strokes, roll the ball in four directions from the center. Continue rolling until the pastry is 1/8 inch thick and 1 inch larger around than the inverted pie pan. Fold and ease pastry into pan. Put in filling and trim off overhanging edges of crust.

Roll top crust about 1 inch larger around than the pie pan. Fold pastry and cut small slits for steam to escape. Or cut slits with scissors after putting top crust on pie.

Dampen rim of lower crust. Place top crust on pie and trim to about 1/2 inch larger than the pan. Fold edge of top crust under edge of lower crust and press edges together to seal.

To make a tight seal, crimp or flute the edges with your fingers. Do not have the rim of the crust too thick or higher than the center. If you do the pie will not bake evenly.

Bake as directed in the filling recipe.
Bake 10 minutes in 425° F. oven. Reduce heat to 325° and bake for about 45 minutes.

When selecting apples, know how you will use them. Good Minnesota apples for pie include Duchess, Wealthy, McIntosh, Northern Spy, Jonathan, and Haralson. For baking, try Wealthy, Northwest, Greening, Jonathan, and Haralson. To learn more, read Horticulture Fact Sheet 24, Know Your Minnesota Apples. See page 18 for ordering information.

Rate Your Pie
- Is the pie an even golden brown?
- Does the crust have a pleasing flavor?
- Is the crust thin, flaky, tender, and free of sogginess?
- Is the filling thick enough to hold its shape and yet not too stiff? In fruit pies, the filling should flow slightly.
- Is the fruit in suitably sized pieces that are both firm and tender?
- Is the crust well filled but not running over?
- Is the flavor characteristic and pleasing, not over or undersweetened or spiced?

Making Coffee
Clean equipment, fresh cold water, and fresh coffee grounds are all important for making good coffee. And for many people coffee can make or break a meal. Read carefully the directions for using your coffeemaker or talk to someone who is familiar with the equipment ahead of time. Don't leave good coffee to luck.

A Roast Turkey Dinner

ROASTING A TURKEY

Today's oven ready turkey has been dressed, rinsed, inspected, bagged, and fresh-frozen.

Thawing Turkey
Leave the turkey in its original bag and use one of the following three methods:

No Hurry: Place turkey on a tray in the refrigerator. Allow 3-4 days for thawing.

Faster: Place turkey on a tray in a closed grocery bag (bag prevents skin of turkey from becoming too warm) at room temperature. Allow 1 hour per pound of turkey.

Fastest: Cover turkey with cold water, changing water occasionally. Allow ½ hour per pound of turkey. Refrigerate or cook the turkey as soon as it has thawed. If you plan to stuff it, do so just before roasting.

Follow thawing instructions on the wrapper for commercially-stuffed turkeys.

Preparing Turkey for the Oven
Remove plastic bag and remove neck and giblets from cavities. Rinse turkey and pat it dry. Simmer neck and giblets for broth for flavoring dressing and for giblet gravy.

Rub salt generously in cavities. You may want to insert pieces of celery, carrots, onion, or parsley for added flavor. Skewer skin to back and twist wings akimbo. Fasten down legs by tying them or tucking them under the skin band. For faster cooking, don't fasten them down at all.

It is not necessary to stuff turkey. Many cooks find it convenient to bake dressing in a casserole, flavoring it with broth from the cooked neck and giblets.

Roasting Turkey
Place turkey breast side up on a rack in a shallow roasting pan. If you’re using a roast-meat thermometer, insert it into the thick part of the thigh.

Meal No. 3
Roast Turkey
Baked Sweet Potatoes
Tossed Green Salad
Muffins  Butter/Crabapple Jelly
Meringue Torte with Fruit
Milk  Coffee
Be sure the bulb does not touch bone. Roast turkey in a preheated 325° F. oven. If desired, baste the turkey with melted butter at regular intervals.

Use the chart below as your guide to length of roasting time. When the thermometer registers 180-185° F., the turkey will be done if you have inserted the thermometer correctly. To check, move the thermometer slightly toward the center of the bird. If it then registers less than 180° F., more cooking is required. Placing a “tent” of foil loosely over the turkey will delay browning. Remove the tent for ½ hour to allow a final browning.

Testing for Doneness
You can use one of these three measures to check for doneness:
1. When a roast-meat thermometer inserted in the thigh registers 180-185° F.
2. When the thick part of the drumstick feels soft when pressed between your thumb and forefinger.
3. When the drumstick and thigh move easily.

<table>
<thead>
<tr>
<th>Ready-to-cook weight</th>
<th>Approximate cooking time</th>
<th>Thermometer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 pounds..............</td>
<td>3 hours</td>
<td></td>
</tr>
<tr>
<td>8 pounds..............</td>
<td>3½ hours</td>
<td></td>
</tr>
<tr>
<td>12 pounds.............</td>
<td>4½ hours</td>
<td>All 180-185° F.</td>
</tr>
<tr>
<td>16 pounds.............</td>
<td>5½ hours</td>
<td></td>
</tr>
<tr>
<td>20 pounds.............</td>
<td>6¼ hours</td>
<td></td>
</tr>
</tbody>
</table>

Note: Unstuffed turkeys require about ½ hour less roasting time.
*Because turkeys vary in conformation, variety, etc., cooking times can be only approximate. Allow an extra ½ hour of roasting time just in case the turkey needs extra cooking. Check for doneness during the last hour of roasting.

Check a cookbook for instructions on how to carve a turkey.

Use The Roaster Turkey (Home Economics Fact Sheet 9) or Game Birds from Field to Kitchen (Extension Bulletin 346) for using field birds or water fowl in your meals. (See page 18 for ordering information.)

CANNING AND YOUR FOOD PLAN
If you have a garden, you may want to plan how much of each fruit and vegetable you want to can or freeze. When making this food plan, consider how often your family will serve these different foods when they are not in season. Plan to rotate your inventory.

You must use a pressure canner for canning all vegetables except tomatoes. A pressure canner provides a temperature high enough (242° F.) to destroy botulism spores, which may form a toxin. Use a boiling water bath to can tomatoes; don’t use the open kettle method.

Your county extension office has up-to-date publications on canning such as: Home Canning Fruits and Vegetables (Extension Folder 100) and Freezing Fruits and Vegetables (Extension Folder 156). See page 18 for information on ordering these publications.

CONSERVING NUTRIENTS IN FOODS
To get the most nutrients out of the food you prepare, remember and follow these guidelines:
• Use fresh, wholesome produce. Avoid wilted or bruised items.
• Wash, peel, stem, slice, etc., food just before cooking or eating it.
• Reduce exposure of cut surfaces to air or water as much as possible. Use large pieces.
• Use as little liquid or water as you can.
• Keep cooking time to a minimum. Bring food to a boil quickly and then reduce the heat. Serve food as soon as possible after cooking.
• Make use of the liquids left after canning or cooking foods. They contain water soluble vitamins and minerals.
VARIETY WITH VEGETABLES

Vegetables offer variety. Plan to try several new fresh, canned, or frozen vegetables this year. How about trying kohlrabi, broccoli, egg plant, or Brussels sprouts? Check your seed catalog for others.

Try several cooking methods to see which ones you prefer. To enjoy the good texture and flavor of vegetables, don’t overcook them. Here are some basic directions for preparing vegetables in a variety of ways.

Buttered: Allow 1 1/2 teaspoons of butter or margarine for 1 cup of cooked vegetables.

Creamed: Mix 1/2 cup of medium white sauce with 2 cups of cooked vegetables.

Scalloped: Arrange 2 cups of vegetables and 1 cup of medium white sauce in alternate layers in a greased baking dish. Cover with buttered breadcrumbs. Bake in a moderate oven (350°). Add egg, meat, or cheese for vegetable casserole entrees.

Mashed: Add 1 tablespoon of butter and 2-3 tablespoons of milk for each cup of potato, squash, or rutabaga.

Souffléed: Combine 1 cup of thick white sauce with 1 cup of pureed spinach, broccoli, or squash. Add three well beaten egg yolks. Slowly fold vegetable mixture into three stiffly beaten egg whites. Season and bake for 1 hour at 350° F. in an ungreased dish until set. See Cheese Soufflé recipe in Meal No. 2 for details.

Baked: Choose potatoes or sweet potatoes of uniform size and shape. Wash, scrub, and rinse them. Prick the skin to permit steam to escape. Bake in a hot oven (400° F.) 40 minutes or until soft.

Stuffed: Stuff tomatoes, onions, or green peppers with seasoned rice or bread crumbs in combination with diced meat, eggs, or cheese.

For added variety, serve your vegetables with garnishes. Try the following combinations: lemon slices on spinach; cheese sauce on broccoli, asparagus, rutabaga, or squash; pimento on peas or green beans; and chopped green onion on peas or beans. Try serving vegetables with herbs, also.

MAKING GREEN SALADS

Storing greens correctly maintains good quality. Always refrigerate them as promptly as possible.

To prepare greens for storage, remove any inedible leaves and wash what you will store in gently running water. Washing greens before storing prepares them for convenient use later on and also helps improve crispness during refrigeration. After washing, drain greens well to remove excess moisture to prevent rotting. Place them in a covered container or bag, or wrap them in film and put them in the vegetable drawer of your refrigerator.

To serve, place salad leaves in a large bowl. Don’t add salad dressing until serving time, as leaves lose their crispness soon after dressing is added.

Use a commercial muffin mix or the following recipe. Compare the cost, the time, the quality. Which do you prefer? Why?

**Muffins**

(Yields 12 medium-sized muffins)

2 cups sifted all-purpose flour (for whole wheat muffins, substitute 1 1/2 cups unsifted whole wheat flour)

3 teaspoons baking powder

1/2 teaspoon salt

2 tablespoons sugar

3 tablespoons shortening

1 egg, well beaten

1 cup milk

Sift flour, baking powder, salt, and sugar into mixing bowl. Cut in shortening until mixture has a cornmeal-like texture. Make a well in the mixture. Mix egg and milk and pour into well in dry ingredients. Stir only until dry ingredients are all dampened. The batter will be rough looking.
Pour into greased muffin pans, filling each muffin well half full. Bake for 20-25 minutes at 400° F.

**Characteristics of a Good Muffin**

Muffins should be symmetrical with a pebbly top surface. They should be golden brown, extremely light, and have a fine grain.

**Crabapple Jelly (without pectin)**

(Seven 6-ounce glasses)

- 4 cups crabapple juice (about 3 pounds crabapples and 3 cups water)
- 4 cups sugar

To Prepare Juice: Select one-fourth under-ripe and three-fourths fully ripe, firm, crisp crabapples.

Sort, wash, and remove stem and blossom ends; do not pare or core. Cut crabapples into small pieces.

Add water, cover, and bring to a boil on high heat. Reduce heat and simmer for 20-25 minutes or until crabapples are soft. Extract juice (see instructions in the fact sheet Making Jelly, listed below).

To Make Jelly: Measure apple juice into a kettle.

Add sugar and stir well.

Boil over high heat to 8° F. above the boiling point of water or until the jelly mixture sheets from a spoon. (Jelly sheets when two big drops slide together and form a sheet that hangs from the edge of the spoon.)

Remove from heat and skim off foam quickly.

Immediately pour jelly into hot containers and process.

For information on how to make jellies, jams, and preserves at home, obtain copies of these Food Science and Nutrition Fact Sheets: Making Jelly (Number 23), Making Jams, Marmalades, and Preserves (Number 24), and Using Minnesota Wild Fruits (Number 25).

**White Sauce**

Thin

- 1 tablespoon butter or margarine
- 1 tablespoon flour
- ½ teaspoon salt
- ½ teaspoon pepper
- 1 cup milk

Medium

- 2 tablespoons butter or margarine
- 2 tablespoons flour
- ½ teaspoon salt
- ½ teaspoon pepper

Thick

- 3 tablespoons butter or margarine
- 3 tablespoons flour
- ½ teaspoon salt
- ½ teaspoon pepper
- 1 cup milk

Melt butter in saucepan. Stir in flour and seasoning till mixture is smooth. Add milk slowly. Cook and stir continuously over moderate heat until mixture is boiling and has cooked to desired thickness. Remove from heat.

Use as described in recipes. Makes a little more than 1 cup.

You may add additional seasonings such as garlic salt, celery salt, sliced onion, Worcestershire, or Tabasco. For cream sauce, use half milk and half light cream, all light cream, or whole evaporated milk.

**Meringue Torte**

(6 servings)

- 3 egg whites
- ½ teaspoon cream of tartar
- ¾ cup sugar
- 16 soda crackers (about 1 cup)
- ¾ cup broken walnuts
- 1 teaspoon vanilla

Beat egg whites until frothy. Add cream of tartar and beat until stiff.

Add sugar gradually. Add crushed crackers, walnuts, and vanilla.

Bake in a greased 8- or 9-inch pie tin for 30-35 minutes at 325° F. Serve with raw or frozen fruit or ice cream.

* The boiling point of water varies from 212° F., depending on the altitude.
COOKING WITH A MICROWAVE OVEN

Have you ever used a microwave oven or seen one demonstrated? Microwaves penetrate the food and heat the food rapidly from within. The cook controls the appearance, texture, and flavor of a product by adjusting the cooking time and speed.

Microwave ovens are used by airlines and restaurants. Many food services will warm your sandwich or sweet roll in such an oven after you have bought it. You may have access to a microwave oven in a student center or public eating place after buying your food from a vending machine.

Using Microwave Ovens (Extension Folder 293) includes a guide for using conventional heat sources and microwaves with different foods. This publication also describes the effect of the heat on the appearance, texture, and flavor of the product. Selecting a Microwave Oven (Home Economics Fact Sheet 29) contains information on safety regulations for microwave ovens. You may also want to read Heating with Microwaves: Consumer Ovens (Home Economics Fact Sheet 35). See page 18 for information on ordering these publications.

A Roast Pork Dinner

Meal No. 4
Roast Pork Loin
Sesame Potato Spears
Baked Squash
Molded Cranberry Salad with Dressing
Rolls
Butter
Lemon Sherbet
Milk
Coffee

SPENDING YOUR FOOD DOLLARS

Skill in shopping comes with practice. After planning a week’s menu, purchase the groceries you need. Here are a few suggestions to help you spend your food dollar wisely.

1. Plan your meals after considering what you have on hand. Look at advertised specials before making your list. Organize your list to save time at the store.

2. Compare fresh, frozen, and canned foods in terms of cost per serving. Unit pricing information may help you, too. Such information appears on the shelf molding below the product in many grocery stores.

3. Remember that when you buy a convenience food or ready-to-eat food, you are paying for a service. Is the quality what you want? How much time do you have for food preparation?


5. Check nutrition labeling information, which is now available on more and more products. Use the information to learn some of the nutrients foods contain and to help you count calories. Here is a sample label:

<table>
<thead>
<tr>
<th>SWEET GREEN PEAS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUTRITION INFORMATION PER SERVING</strong></td>
</tr>
<tr>
<td><strong>SERVING SIZE:</strong> 3.3 OZ. (1/2 CUP) SERVINGS PER PACKAGE: 3</td>
</tr>
<tr>
<td><strong>CALORIES</strong></td>
</tr>
<tr>
<td><strong>PROTEIN</strong></td>
</tr>
<tr>
<td><strong>CARBOHYDRATES</strong></td>
</tr>
<tr>
<td><strong>FAT</strong></td>
</tr>
<tr>
<td><strong>PERCENTAGES OF U.S. RECOMMENDED DAILY ALLOWANCES</strong></td>
</tr>
<tr>
<td><strong>PROTEIN</strong></td>
</tr>
<tr>
<td><strong>CALCIUM</strong></td>
</tr>
<tr>
<td><strong>VITAMIN A</strong></td>
</tr>
<tr>
<td><strong>IRON</strong></td>
</tr>
<tr>
<td><strong>VITAMIN C</strong></td>
</tr>
<tr>
<td><strong>VITAMIN B6</strong></td>
</tr>
<tr>
<td><strong>THIAMINE</strong></td>
</tr>
<tr>
<td><strong>PHOSPHORUS</strong></td>
</tr>
<tr>
<td><strong>RIBOFLAVIN</strong></td>
</tr>
<tr>
<td><strong>MAGNESIUM</strong></td>
</tr>
<tr>
<td><strong>NIACIN</strong></td>
</tr>
<tr>
<td>* CONTAINS LESS THAN 2% OF THE U.S. RDA OF THIS NUTRIENT.</td>
</tr>
</tbody>
</table>

6. Select fresh produce that has been stored at the proper temperatures. Don’t buy wilted or bruised produce. Be sure frozen foods you buy are frost-free and in undamaged packages. Take your groceries home and put them away promptly.
Molded Cranberry Salad
(6 servings)
1 3-ounce package raspberry gelatin
2 cups hot water or 1 cup hot water
and 1 cup fruit juice
Grated rind of 1 orange
1 cup whole cranberry sauce
1 cup green grapes (fresh or canned)

Roast Pork
See the chart on page 4 for the amount of roast to prepare. Talk to your butcher about carving the roast. He can cut bones in the roast to make it easier to carve.

Place pork loin roast fat side up on a rack in a shallow pan. Don't add water or cover. You may season pork either before or after cooking.

Follow the chart on page 3 for approximate cooking time and temperature of meat when done. The size and shape of the roast and the temperature of the meat at the start all affect the time required. Place the meat thermometer in the thickest part of the lean meat, making sure it does not touch bone or fat. You can thaw or partially thaw frozen meat or you can cook it without thawing it. If you don't prethaw roast, allow one-third to one-half more cooking time.

Read Storing Meat in Your Refrigerator (Extension Folder 278) for more information.

Some people think pork must be cooked to well done because of the danger of trichinosis. But the organism that causes this disease (Trichinella spiralis) is destroyed in infected pork products by cooking the meat to an internal temperature of only 137° F., so cooking pork to well done is unnecessary from a safety standpoint. An internal temperature of 170° F. is necessary for good flavor, however.

Rate Your Pork Roast
• Is it juicy?
• Is it tender?
• Is it uniformly browned?
• Is it well seasoned?
• How many servings did you get? (If you cooked the roast too long, you may have had a lot of shrinkage.)

Baked Squash
(2 pounds: 4-6 servings)
Cut acorn squash in half and hubbard squash in 3- or 4-inch squares. Place squash cut side down in baking pan. Moisten by pouring a little water into the pan.
Bake at 350° F. until squash is partly done (about 30 minutes for acorn and 1 hour for hubbard).
Turn pieces over and sprinkle them with salt and 1 tablespoon of brown sugar. Dot with butter. Continue baking until squash is tender.
Depending on the size of acorn squash, you can cut baked pieces into smaller serving sizes.

Dissolve gelatin in liquid. Add orange rind and cranberry sauce. When mixture is slightly cool, add grapes. When slightly thick, pour into mold or 8- x 8-inch pan.
Serve on lettuce leaves with your favorite salad dressing. Or serve with mayonnaise to which you have added whipped cream.

Sesame Potato Spears
6-8 medium potatoes
¼ cup melted butter or margarine
2 teaspoons salt
2 teaspoons paprika
¼ cup sesame seed

Peel potatoes and cut them into long quarters. Place in buttered baking dish. Brush with melted butter. Sprinkle with salt, paprika, and sesame seed. Bake at 375° F. for 1 hour.
EVALUATING FOOD FACTS

Food is very personal; it is important to our psyche as well as to our bodies. What we eat is usually something we can control and change as we desire. When people become concerned with their health or when they have chronic illnesses, they may view food and its nutrients as a means of preventing or curing disease. In their search for help, many turn to food or nutrient supplements and may be victims of misinformation.

It is not easy to sort fact from fiction when it comes to nutrition. We must continuously evaluate what we see, hear, or read. And we must recognize that there are still many unanswered questions in this area. The desire for a plain, clear answer and the tendency to hear what we want to hear may lead to misinformation.

You can separate nutrition fact from fiction by learning the basics of good nutrition. Ask yourself these questions when evaluating information.

1. Are miracle cures promised? Does the information represent nutrition as a cure-all for any of the dreaded chronic diseases? (Example: that honey and vinegar prevent heart attacks or cure cancer or that citrus fruits or juices cure arthritis.)
2. Are testimonials used? Are isolated instances and individual cures reported rather than research with control groups and limited variables?
3. What is the source? Is the author from a recognized agency or organization? What professional organizations have published the author’s research in their journals? Frequently, well-intending relatives and friends can be sources of misinformation.
4. Is a product or publication being promoted? Who will benefit by its sale? Be suspicious of products sold door-to-door by self-styled “health advisers.”
5. Are there exaggerated nutritional claims for “natural” or “organic” products? Nothing is wrong with such foods, but they are not more nourishing than the fresh and processed foods available in supermarkets or from home gardens.
6. Does the source say that government agencies or the medical profession is persecuting and exploiting the public? It is essential that high standards be used in research and practice and that studies be carefully scrutinized by other scientists, since authorities don’t always agree. Research takes time; it must be repeated to be valid. Controversy is helpful.

Apply these six ideas to magazine articles or advertising related to nutrition.

A Buffet Picnic

FOOD SAFETY

When planning a picnic, it’s essential that you understand and use safe methods of handling food to prevent food poisoning, which results from bacterial growth and the formation of toxins in food. Bacteria start growing in the presence of food, lukewarm temperatures, and moisture. To prevent food poisoning, follow these rules: (1) Keep your hands, equipment, and food clean. (2) Keep hot foods hot and cold foods cold. (3) Keep food and utensils covered. Another way to minimize the danger of food poisoning is to select foods that are not apt to support bacterial growth. Dry or salty foods such as jerky, dried fruit, and salty snacks are examples.

By using cooler chests, thermos jugs, and airtight containers with crushed ice, you can safely include a wider variety of foods on your picnic menu. Both metal clad and foam cooler chests will keep foods cold for 12-15 hours.

Meal No. 5
Cold Cuts/Sliced Ham and Cheese Sandwiches with Homemade Rye Bread
Pickles/Mustard
Raw Vegetables
Potato Chips
Watermelon
Carbonated Beverage/Lemonade
hours, provided the lid is kept on when the chest isn't being used. With cooler chests, you can take a large variety and quantity of foods on picnics. Thermos jugs and airtight containers (such as plastic containers) with crushed ice also will keep foods cold enough to prevent bacterial growth.

You also can use newspapers to keep food cold on a short-term basis. Wrapping foods such as frozen or partially frozen hamburgers or hot dogs in many (15-20) layers of newspapers will act as an insulator, keeping the cold air circulating within.

If you decide not to use any of these aids, it is important that you choose foods that don't require any refrigeration. Remember that foods such as meats, milk, cream, eggs, and mayonnaise products require refrigeration; they make good bacteria-growing sites if they are not kept cold. Instead of preparing potato salad, which contains eggs and mayonnaise, choose fresh vegetables and fruits as substitutes. Foods such as potato chips and pickles also are excellent choices for a picnic. Because these foods are salty, dry, or high in acid, they don't encourage bacterial growth.

Remember that if a food is nourishing for you (milk or eggs, for instance) it is also nourishing for bacteria. And, if the temperature is comfortable for you (between 45° and 140° F.), it is good for bacterial growth.

Even though food choices for a picnic may be limited, it is still important to consider the daily food guide. Using a carbonated beverage or a fruit drink instead of milk but including a serving of cheese, which is from the milk group, is an example of good menu planning.

For more information, read Food-Borne Disease (Food Science and Nutrition Fact Sheet 2).

**Rye Bread (Swedish Limpa)**

2 packages dry granular yeast or
2 cakes dry yeast
1 1/2 cups lukewarm water
1/4 cup molasses
1/2 cup sugar
Finely shredded rind of 1 or 2 oranges
2 1/2 cups sifted rye flour
2 tablespoons soft shortening
1 tablespoon salt
2 1/2-3 cups sifted all-purpose flour

Add yeast to 1/2 cup lukewarm water and let it stand 5 minutes without stirring.
Mix together 1 cup water, molasses, sugar, and orange rind. Add yeast mixture.
Add rye flour using a mixing spoon. Add soft shortening and salt and mix well. Add white flour.
Turn onto floured pastry cloth or cloth-covered board. Cover and let stand 10 minutes to allow dough to tighten up. Knead until smooth and elastic.
Place in greased bowl. Cover with damp cloth. Allow dough to rise until double in bulk.
Punch down dough. Cover with damp cloth and let it rise again until not quite double in bulk.
Turn onto lightly floured canvas and divide in half. Form into two round loaves. Place on lightly greased baking sheet. Cover with damp cloth and let dough rise until double in bulk.
Bake about 35 minutes in a 375° F. oven. Brush tops with shortening and cool on rack.

**PICKLES AND SAUERKRAUT**

These foods are staples in the meals of many people. A bumper crop of cucumbers or cabbage finds its way into canning jars as a winter supply of relishes and pickles. Obtain these two Food Science and Nutrition Fact Sheets for more information: Making Fresh Pack Pickle Products (Number 26) and Making Fermented Pickles and Sauerkraut (Number 27). See page 18 for ordering information.
BUYING HAM AND PROCESSED MEATS
Consumer Tips on Buying and Serving Ham (Animal Science Fact Sheet 27) describes the many types of ham available. Talk to your supermarket butcher about the types of ham available in his store. If you would like thin slices for picnic sandwiches, ask the butcher to slice the ham according to your preference.

PLANNING NUTRITIONAL AND CALORIE NEEDS
The calories in the five meals in this bulletin are listed in appendix A. All of the meals contribute a major portion of the day's calories.
Plan the rest of the day's meals and snacks for yourself or someone else, keeping calories and the Daily Food Guide in mind. You may want to use desserts or other parts of a meal for a snack. You and Your Weight (HS-33) will be helpful in determining calorie needs. You may need to increase or decrease serving sizes. Nutritive Value of Food (Home and Garden Bulletin 72) also should be helpful. Check the menus for protein, calcium, iron, vitamin A, or vitamin C content and compare your figures with the recommended dietary allowances listed in appendix B.

OBTAINING RECOMMENDED REFERENCES
From the U.S. Department of Agriculture
The publications listed below are available from the U.S. Government Printing Office. Notice that there is a charge for the first two publications.
Calories and Weight: The USDA Pocket Guide (50 cents)—G153
Food and Your Weight (15 cents)—G7
Home Canning of Fruits and Vegetables (no charge)—G8
Home Canning of Meat and Poultry (no charge)—G106
Nutritive Value of Foods (no charge)—G72
Send orders for free publications to the Publications Division, Office of Communication, U.S. Department of Agriculture, Washington, D.C. 20250. Be sure to include your zipcode.
To obtain publications for which there is a charge, send your order and payment to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Use both the number and title of the publication when ordering.

From the Agricultural Extension Service
The other publications recommended in this bulletin should be available from your county extension office. Ask your office for copies or for information on how to order them. Always use both the number and title of the publication when ordering.

BULLETINS
Game Birds from Field to Kitchen—Extension Bulletin 346
Retail Cuts of Meat—Extension Bulletin 393

FACT SHEETS
Buying Meat by Cost Per Serving—Animal Science Fact Sheet 24
Consumer Tips on Buying and Serving Ham—Animal Science Fact Sheet 27
Food-Borne Disease—Food Science and Nutrition Fact Sheet 2
Heating with Microwaves: Consumer Ovens—Home Economics Fact Sheet 35
Know Your Minnesota Apples—Horticulture Fact Sheet 24
Making Fermented Pickles and Sauerkraut—Food Science and Nutrition Fact Sheet 27
Making Fresh Pack Pickle Products—Food Science and Nutrition Fact Sheet 26
Making Jams, Marmalades, and Preserves—Food Science and Nutrition Fact Sheet 24
## Appendix A—Calories in the Five Meals

### Meal No. 1

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<tr>
<th>Item</th>
<th>Quantity</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Braised beef chuck with onions</td>
<td>3 ounces, lean and fat</td>
<td>245</td>
</tr>
<tr>
<td>Carrots</td>
<td>1 carrot</td>
<td>20</td>
</tr>
<tr>
<td>Potatoes</td>
<td>1 medium potato</td>
<td>80</td>
</tr>
<tr>
<td>Citrus apple salad</td>
<td>1/3 of three fruits</td>
<td>100</td>
</tr>
<tr>
<td>Honey-lemon juice dressing</td>
<td>1 tablespoon</td>
<td>30</td>
</tr>
<tr>
<td>Enriched white bread</td>
<td>1 slice</td>
<td>65</td>
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<tr>
<td>Butter</td>
<td>1 teaspoon</td>
<td>35</td>
</tr>
<tr>
<td>Ice cream</td>
<td>1/2 cup</td>
<td>125</td>
</tr>
<tr>
<td>Milk</td>
<td>8 ounces</td>
<td>160</td>
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**TOTAL** 860

### Meal No. 2

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</tr>
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<tbody>
<tr>
<td>Cheese soufflé (1,250 calories)</td>
<td>1/4 recipe</td>
<td>310</td>
</tr>
<tr>
<td>Buttered spinach</td>
<td>1/2 cup</td>
<td>70</td>
</tr>
<tr>
<td>Sliced tomatoes</td>
<td>1/2 tomato</td>
<td>20</td>
</tr>
<tr>
<td>Celery sticks</td>
<td>1 stalk</td>
<td>5</td>
</tr>
<tr>
<td>Whole wheat bread</td>
<td>1 slice</td>
<td>65</td>
</tr>
<tr>
<td>Butter</td>
<td>1 teaspoon</td>
<td>35</td>
</tr>
<tr>
<td>Apple pie</td>
<td>1 piece (1/7 of 9-inch pie)</td>
<td>390</td>
</tr>
<tr>
<td>Milk</td>
<td>8 ounces</td>
<td>160</td>
</tr>
<tr>
<td>Coffee</td>
<td>1 cup</td>
<td>—</td>
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**TOTAL** 1,055

### Meal No. 3

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<tr>
<th>Item</th>
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</thead>
<tbody>
<tr>
<td>Turkey, light meat</td>
<td>3 ounces</td>
<td>150</td>
</tr>
<tr>
<td>Baked sweet potatoes</td>
<td>1 potato</td>
<td>155</td>
</tr>
<tr>
<td>Tossed green salad with 1 tablespoon French dressing</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>Muffins</td>
<td>1 muffin</td>
<td>100</td>
</tr>
<tr>
<td>Butter</td>
<td>1 teaspoon</td>
<td>35</td>
</tr>
<tr>
<td>Crabapple jelly</td>
<td>1 tablespoon</td>
<td>50</td>
</tr>
<tr>
<td>Meringue torte with fruit</td>
<td>1/6 recipe</td>
<td>120</td>
</tr>
<tr>
<td>Milk</td>
<td>8 ounces</td>
<td>160</td>
</tr>
<tr>
<td>Coffee</td>
<td>1 cup</td>
<td>—</td>
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**TOTAL** 885
Appendix B—Recommended Daily Dietary Allowances

Recommended daily dietary allowances designed for the maintenance of good nutrition, children and young adults, ages 7-18

<table>
<thead>
<tr>
<th>Age group</th>
<th>Weight</th>
<th>Height</th>
<th>Energy</th>
<th>Protein</th>
<th>Fat soluble vitamins</th>
<th>Water soluble vitamins</th>
<th>Minerals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>kg²</td>
<td>lb.</td>
<td>cm</td>
<td>in.</td>
<td>kcal</td>
<td>Vitamin A I.U.</td>
<td>Vitamin D I.U.</td>
</tr>
<tr>
<td>Children 7-10</td>
<td>30</td>
<td>66</td>
<td>135</td>
<td>54</td>
<td>2,400</td>
<td>36</td>
<td>3,300</td>
</tr>
<tr>
<td>Females  11-14</td>
<td>44</td>
<td>97</td>
<td>155</td>
<td>62</td>
<td>2,400</td>
<td>44</td>
<td>4,000</td>
</tr>
<tr>
<td></td>
<td>54</td>
<td>119</td>
<td>162</td>
<td>65</td>
<td>2,100</td>
<td>48</td>
<td>4,000</td>
</tr>
<tr>
<td>Males    11-14</td>
<td>44</td>
<td>97</td>
<td>158</td>
<td>63</td>
<td>2,800</td>
<td>44</td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td>61</td>
<td>134</td>
<td>172</td>
<td>69</td>
<td>3,000</td>
<td>54</td>
<td>5,000</td>
</tr>
</tbody>
</table>

¹ From Food and Nutrition Board, National Academy of Sciences—National Research Council recommended daily dietary allowances, revised 1974. The allowances are intended to provide for individual variations among most normal persons as they live in the United States under usual environmental stresses. Diets should be based on a variety of common foods in order to provide other nutrients for which human requirements have been less well defined.

² Abbreviations: kg = kilograms, lb. = pounds, cm = centimeters, in. = inches, kcal = kilocalories (Kilojoules (KJ) = 4.2 x kcal), g = grams, I.U. = International Units, mg = milligrams.

³ Although allowances are expressed as niacin, it is recognized that on the average 1 milligram of niacin is derived from each 60 milligrams of dietary tryptophan.
RECIPE INDEX

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Crabapple Jelly ............... 13  Roast Turkey ...................... 10
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Green Salad ................... 12  Sesame Potato Spears .......... 15
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                      White Sauce .................. 13

Mary Darling is an assistant professor and extension nutritionist and Debora Wardle is a research assistant, Agricultural Extension Service, University of Minnesota.

The meat cuts drawing on page 2 was adapted from a drawing prepared by the National Live Stock and Meat Board. The information on roasting a turkey (pages 10-11) was drawn from a flyer prepared by the National Turkey Federation.

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