



PEER REVIEWED
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4-H Cooking 401



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ACKNOWLEDGEMENTS

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All recipes in this book were tested by University of Illinois Extension Nutrition and Wellness Educators.

- Recipes were analyzed using The Food Processor SQL, Version 10.5.
- 2% milk was used unless another kind of milk was specified in the recipe.
- When a range was given for ingredient amount or number of servings, the largest number was used in the analysis.
- When options were listed for ingredients in a recipe, the first ingredient listed was analyzed.

Codes for Nutrition Facts: g = gram and mg = milligram.

For ordering information contact National 4-H Council Supply Service at: (301) 961-2934 or www.4-Hmall.org.



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A NOTE TO PROJECT HELPERS



The *4-H Cooking 401* project builds on the skills young people learned in the *4-H Cooking 101, 201, and 301* projects. Members should complete those projects before beginning *4-H Cooking 401*. This project is the final one in the *4-H Cooking* series and provides an in-depth exploration of preparing ethnic foods; cooking with herbs and spices; planning celebration meals; preparing meats by roasting, braising, and stewing; cooking dried beans; and making pastry, foam cakes, and desserts made with milk.

The *4-H Cooking 401* project helps members develop advanced food preparation skills. Because of the more difficult cooking techniques, they may rely more on you for guidance and advice. You have a very important role as the Project Helper. You can guide, assist, and mentor the young person in the advanced cooking techniques. You can also encourage the confidence that develops as he/she completes these more difficult tasks.

The project book is organized into sections by **MyPlate** Food Groups. At the beginning of each section, background information is provided to help the young person learn more about the science behind food preparation. That is especially important in understanding how to produce quality products and to troubleshoot what went wrong when mistakes happen. Recipes are included for each food group. The recipes help the young person learn and apply the background information included in each section.


Learning by doing is the best way to learn food preparation skills. Young people will learn important life skills that they will use as they continue to grow and become independent, responsible adults. Instead of always telling the youth the right answer or the correct way to do something, review the background information with him/her and allow the member to decide how to proceed. With support from you as a caring adult, he/she will not only remember these lessons, but also the impact that you had on his/her life.

As you work with the young person on this foods project, remember to focus on the positive. If the youth doesn't do things quite the way you would, compliment on what is done well rather than criticizing. If something doesn't turn out quite right, use it as a learning opportunity to find out what the youth might do differently next time. Your positive feedback and encouragement as the Project Helper is important to the youth.

Thank you for all you will do to guide your 4-H member through this final project in the *4-H Cooking* series. We encourage youth to spend two to three years in this project especially since it covers a wide variety of advanced cooking techniques. You may also want to include another adult who specializes in a food preparation area and can share his/her knowledge with the member.



PROJECT PLANNING

Welcome to *4-H Cooking 401*. This project is the final one in the *4-H Cooking* project series. If you have completed the previous three projects, you should be ready for the advanced food preparation techniques you will explore in this project. You will also have the opportunity to try foods from different cultures. Those recipes are noted with this icon  on the top right of the page. The project is divided into sections based on **MyPlate** Food Groups. The skills and knowledge you learn and practice in one section may be applied in other sections. This will help you to expand your food preparation skills and techniques.

We suggest that you work for two or three years to complete the project. That will give you an opportunity to spend more time learning about some of the topics, such as roasting, braising, or stewing meats; cooking with dried beans and peas; making custard or fruit pies and homemade pastry; making meringues and foam cakes; and churning homemade ice cream. Each year you could focus on one or two food preparation areas. You have over 50 different recipes to choose from and several learning activities to complete as part of the project.

It is important to have a Project Helper to guide you through the things you will learn in this project. Your helper can be a parent, grandparent, club leader, or another adult or older youth who has a lot of experience in food preparation and safety. Show the person your project book and ask if he/she would be willing to help you with the project. Ask your helper to complete the following information:

My Project Helper _____

Phone number _____ Email address _____

For each year of the *4-H Cooking 401* project, you should:

- Prepare 2 to 3 dishes from **each** of the recipe sections: Fruit Group and Vegetable Group, Grains Group, Protein Foods Group, Dairy Group, and Desserts (10 to 15 dishes total)
- Demonstrate your knowledge on cooking or baking techniques. Give 3 to 5 “How To” demonstrations to your Project Helper, leader, or club. Suggested topic areas include flatbreads, pastry, candy, celebration meal planning, or roasting, braising, or stewing meats.
- Complete 1 or 2 food science experiments.
- Complete at least one community service project such as, planning and hosting a holiday celebration meal for needy families in your community, or preparing an ethnic meal for foreign exchange students from a local high school or university.



WHAT DO YOU KNOW?

Welcome to *4-H Cooking 401*! This project is the final one in the *4-H Cooking* series and in it you will build on many of the skills that you learned in *4-H Cooking 101, 201, and 301*. You should complete those projects before beginning this one. It may take two or three years for you to complete all of the activities in this project.

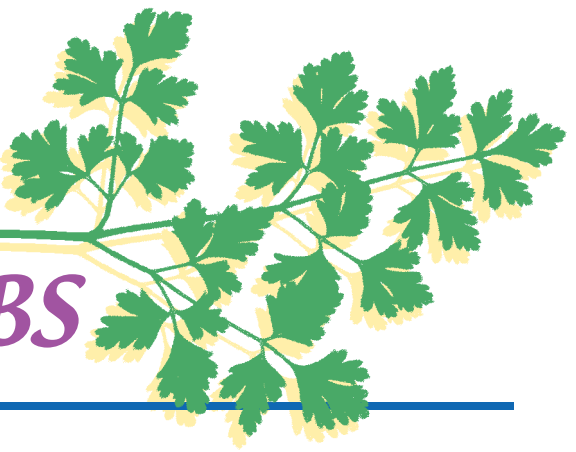
Following is a list of the skills you will learn in *4-H Cooking 401*. Before you start working on the project, read through the list of skills and rate yourself on how much you know now. Then at the end of each project year, rate what you know after completing the activities. Use the following rating scale:

Begin each statement with the phrase, "I know..." then circle 1 = not at all; 2 = a little; 3 = a lot

I know...	Before			After		
The difference between herbs and spices	1	2	3	1	2	3
How to use herbs and spices in preparing ethnic foods	1	2	3	1	2	3
How to organize a celebration meal	1	2	3	1	2	3
How to make flatbreads and other ethnic yeast breads	1	2	3	1	2	3
How to use whole grains in preparing ethnic foods	1	2	3	1	2	3
How to use and prepare fruits from around the world	1	2	3	1	2	3
How to prepare advanced potato dishes	1	2	3	1	2	3
How to stir-fry vegetables and other foods	1	2	3	1	2	3
How to prepare meats using dry- or moist-heat methods	1	2	3	1	2	3
How to prepare a tough cut of meat so it is tender and juicy	1	2	3	1	2	3
How to prepare and use dried beans and peas	1	2	3	1	2	3
How to make ice cream with an ice cream churn	1	2	3	1	2	3
How to thicken custard and pudding with starch thickeners	1	2	3	1	2	3
How to temper eggs	1	2	3	1	2	3
Difference between crystalline and non-crystalline candy	1	2	3	1	2	3
The six temperature stages of making candy	1	2	3	1	2	3
How to check a candy thermometer for accuracy	1	2	3	1	2	3
How to make a tender, flaky pastry	1	2	3	1	2	3
How to make a meringue	1	2	3	1	2	3
How to practice food safety when handling eggs	1	2	3	1	2	3
How to prevent "weeping" in a pie	1	2	3	1	2	3
How to make a fluted edge for a pie crust	1	2	3	1	2	3
How to correctly beat egg whites for maximum volume	1	2	3	1	2	3
The difference between a custard and a cream pie	1	2	3	1	2	3
How to evaluate pies for quality	1	2	3	1	2	3
The difference between angel food, sponge, and chiffon cakes	1	2	3	1	2	3
How to evaluate foam cakes for quality	1	2	3	1	2	3
What serves as leavening for foam cakes	1	2	3	1	2	3



COOKING WITH SPICES AND HERBS



Spices and Herbs

Many of the recipes in *4-H Cooking 401* are cultural favorites from around the world. Exploring foods from different cultures introduces you to foods and flavors you may never have tried before. As you expand your food preparation skills, you may find that your food likes and dislikes are changing too.

As you try the ethnic recipes in this manual, you may not be familiar with some of the foods, herbs, or spices used in the recipes. Preparing ethnic foods is a delicious way of learning about new foods and flavors. Most of the herbs and spices listed in this section should be easy to find at a major grocery store. Begin by identifying the spices and herbs in your own kitchen. Compare those to the variety of offerings in the spice aisle at the grocery store. Watch for sales on herbs and spices to save money as you add needed items to the selection in your kitchen. As you experiment with the different herbs and spices in the recipes, make notes about the ones you tried and any comments you have about the flavors.

An added health benefit to cooking with herbs and spices is these ingredients add flavor to foods so less salt (sodium) is needed to season them. Reducing the amount of salt in the diet may be helpful to people at risk for or that have high blood pressure. Also, herbs and spices do not add fat or calories to food — an added benefit in maintaining a healthy weight.

What's the Difference?

What is the difference between spices and herbs?

Spices are typically the roots, bark, stems, leaves, buds, seeds, or fruits of **aromatic plants** — plants that give a sweet-smelling fragrance and flavor to food. These plants are usually grown in tropical climates. Cinnamon, cloves, nutmeg, and paprika are a few examples of spices.

Herbs are the leaves of plants which grow only in the temperate zone, or leaves from herb plants. These herbs are often grown locally in pots or gardens. Some examples are rosemary, sage, basil, and tarragon.



Storing Spices and Herbs

To get the most out of your spices, they should be stored properly. Place them in a cabinet away from sunlight, heat, and moisture. Avoid storing them near the heat of a range or the humidity of a dishwasher. Do not store spices and herbs in the freezer because each time the container comes out of the freezer, condensation may form and introduce moisture into the container.

Over time spices and herbs do lose their potency and flavor. For that reason it is best to buy small quantities. To test for flavor, gently shake the container with the cap in place. Remove the cap and smell the container to see if the rich smell of the spice or herb is still present. If not, the spice or herb should be discarded.

Helpful Hints for Using Spices and Herbs

- Use small amounts until you determine if you like the flavor.
- Start with 1/4 teaspoon per pound of meat or pint of liquid. Add more if desired.
- Experiment with fresh and dried herbs.
- Dried herbs are stronger than fresh; powdered are stronger than crumbled.
- Substitute 1 teaspoon dried herbs for 1 tablespoon fresh.
- Generally, do not mix two strong herbs together — instead use one strong and one milder one to complement each other.
- Use scissors to cut leaves of fresh herbs very fine before adding to food; crush dried leaf herbs; use a mortar and pestle for grinding herbs into powders.
- Herb and salt blends are usually herbs added to salt. Save money and reduce the amount of salt used by purchasing herbs separately.
- For short cooking times, less than 15 minutes, add seasonings at the beginning.
- For longer cooking times, add the seasonings during the last 20 to 30 minutes to preserve their flavor.

Herb Flavors

Strong or dominant flavor — Use 1 teaspoon per 6 servings; examples include hot peppers, mustard, black pepper, rosemary, and sage; use 1 or 2 bay leaves.




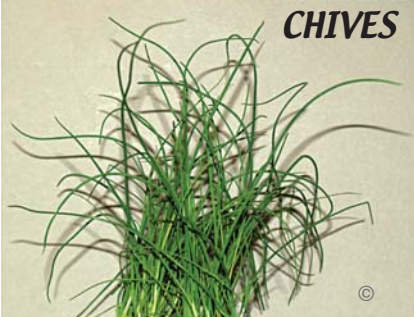
Medium flavor — Use 1 to 2 teaspoons per 6 servings; examples include basil, celery seed, dill, fennel, French tarragon, garlic, marjoram, mint, oregano, savory, and thyme.

Mild or delicate flavor — Use larger quantities of these herbs since they combine well with others; examples include chives and parsley.

EXPERIMENT WITH SPICES AND HERBS



Experiment with these common spices and herbs. Record the name of the recipe that contains the herb you tried and comments about the flavor of the spices and herbs used in the recipe. If possible, you may want to test the dish before and after adding these ingredients to determine the difference in flavors.

Spice or Herb	Description	Uses	Recipe Name and Comments
 <p>BASIL</p>	Herb with long stems and large, soft leaves that range in color from lime green to deep purple; adds a warm, peppery flavor to foods	Tomato and egg dishes, soups, stews, and salads	
 <p>BAY LEAF</p>	An oval, pointed, and smooth-leaved herb with a woody flavor; dried leaves have a matte olive-green color	Tomato sauces, Italian dishes, stews, and soups	
 <p>CHILI POWDER</p>	Spice made from ground chilies; has a rich aroma and a spicy hot taste	Chili, beans, and rice dishes	
 <p>CHIVES</p>	Herb with a mild, onion-like flavor and a hint of garlic; has bright green, long, thin, hollow leaves	Potato dishes, soups, dips, and sauces	

Spice or Herb	Description	Uses	Recipe Name and Comments
 <p>MINT</p>	Spearmint and peppermint are the most common mint varieties of herb used in cooking; they give a sweet, refreshing taste to foods	Fruit salads, fruit soups, melon, berries, cold fruit beverages, cooked carrots or peas, chilled yogurt soup, lamb, and tabbouleh	
 <p>NUTMEG</p>	Spice with sweet but slightly bitter flavor; use sparingly — a little goes a long way.	Cooked fruits, pies and desserts, baked items, spinach, sweet potatoes, eggnog, and French toast	
 <p>OREGANO</p>	Herb often used in tomato sauces and pizza; hearty and assertive flavor with a peppery bite	Italian dishes, chili, omelets, beef stew, meat loaf, pork, and vegetables such as broccoli or tomatoes	
 <p>PARSLEY</p>	Curly parsley has a mild taste, tightly bunched, bright green leaves, and crisp texture. Italian variety of this herb is more fragrant, bold in taste, and less bitter; has saw-toothed edged leaves	Chicken, lamb and beef, soups and tomato sauces, salads, vegetables, and grilled fish	
 <p>ROSEMARY</p>	Herb looks like a small sprig from an evergreen tree; has a pine-like smell and flavor	Breads, meats, fish, soups and stews, and vegetables	
 <p>THYME</p>	Herb with small green-gray leaves with a white underside; has a lemony, peppery taste	Fish, poultry, or meats, in soups or stews, and vegetable salads	