



INGREDIENT SUBSTITUTIONS

If you run out of an ingredient, use one of these substitutions, but remember that best results will come from using the ingredients specified in recipes.

If You Don't Have	Use Instead
Arrowroot, 1 tablespoon	2 tablespoons flour or 1 tablespoon cornstarch
Baking powder, 1 teaspoon	1/4 teaspoon baking soda plus 1/2 teaspoon cream of tartar
Bread crumbs, 1 cup	3/4 cup fine cracker crumbs
Broth, 1 cup	1 bouillon cube or 1 teaspoon powdered broth dissolved in 1 cup boiling water
Butter, 1 cup	1 cup margarine; or 1 cup hydrogenated fat plus 1/2 teaspoon salt; or 7/8 cup oil plus 1/2 teaspoon salt
Catsup or chili sauce, 1 cup	1 cup tomato sauce plus 1/2 cup sugar and 2 tablespoons vinegar (for cooking)
Cayenne pepper, 1/8 teaspoon	3-4 drops liquid hot red pepper seasoning
Celery, fresh, 8 ounces	4 ounces celery flakes, dry
Chocolate, unsweetened 1 ounce (1 sq.)	3 tablespoons cocoa plus 1 tablespoon margarine or butter
Cocoa, 3 tablespoons	1 ounce chocolate, reduce fat in recipe by 1 tablespoon
Coconut, 1 tablespoon grated dry	1-1/2 tablespoons fresh grated
Coconut milk, 1 cup	1 cup milk
Cornstarch, 1 tablespoon	2 tablespoons all-purpose flour
Corn syrup, 1 cup	3/4 cup sugar plus 1/4 cup water
Cream, heavy, 1 cup	3/4 cup milk plus 1/3 cup margarine or butter
Cream, light, 1 cup	7/8 cup milk plus 3 tablespoons margarine or butter
Cream, whipped, 2 cups	2 cups whipped dessert topping
Cream, sour, 1 cup	3 tablespoons margarine or butter plus 7/8 cup sour milk or buttermilk
Egg, 1 large whole	4 tablespoons beaten egg; or 2 yolks plus 1 tablespoon water
Flour, 1 tablespoon as a thickener	1/2 tablespoon cornstarch, potato starch, arrowroot, or rice starch; or 2 teaspoons quick-cooking tapioca
Flour, cake, 1 cup	7/8 cup sifted all-purpose flour
Flour, self-rising, 1 cup	1 cup all-purpose flour plus 1 teaspoon baking powder and 1/2 teaspoon salt
Garlic, 1 small clove	1/8 teaspoon garlic powder; or 1/8 teaspoon dried minced garlic; or 1 teaspoon garlic salt
Ginger, 1/8 teaspoon powdered	1 tablespoon candied ginger rinsed and finely chopped
Green peppers, 8 ounces	1 ounce green pepper flakes, dry
Herbs, 1 tablespoon fresh minced	1 teaspoon dried, ground or crushed herbs
Honey, 1 cup	1 cup granulated sugar plus 1/4 cup liquid

If You Don't Have	Use Instead
Lemon peel, 1 teaspoon grated	1/2 teaspoon lemon extract
Milk, 1 quart whole	1 quart skim milk plus 3 tablespoons margarine or butter
Milk, 1 cup whole	1/4 cup whole dry milk plus 1 cup water; or 1/2 cup evaporated milk plus 1/2 cup water; or 1 cup skim milk plus 2 teaspoons margarine or butter; or 1 cup reconstituted nonfat dry milk plus 2 teaspoons margarine or butter
Milk, 1 cup skim	1/4 cup nonfat dry milk plus 1 cup water
Milk, 1 cup buttermilk or sour milk	1 tablespoon vinegar or lemon juice plus enough whole or skim milk to make 1 cup (let stand 5 minutes); or 1-3/4 teaspoons cream of tartar plus 1 cup whole or skim milk; or 1 cup plain yogurt
Mushrooms, 1 pound fresh	3 ounces dried; or 8 ounce can
Mustard, 1 tablespoon prepared	1 teaspoon dry mustard
Onion, 1 small	1 teaspoon onion powder; or 1 tablespoon minced dried onion
Parsley, fresh, 8 ounces	3 ounces parsley flakes, dry
Prunes, pitted, 1/2 cup	1/2 cup seedless raisins or dried currants
Rice, white, 1 cup uncooked	1 cup brown or wild rice uncooked; or 3 cups cooked
Shrimp, 1 cup cleaned, shelled, cooked	3/4 pound raw, in shell; or 7 ounce package frozen peeled and cooked shrimp; or 4-1/2 to 5 ounce can shrimp
Sour cream, 1 cup	1 tablespoon lemon juice plus enough evaporated milk to make 1 cup
Spices: See "herb and Spice Substitutions"	
Sugar, 1 cup granulated	1 cup packed brown sugar; or 2 cups sifted powdered sugar; or 2 cups corn syrup (reduce liquid in recipe); or 3/4 cup honey (reduce liquid in recipe)
Tomatoes, 1 cup canned	1-1/3 cups cut-up fresh tomatoes, simmered 10 minutes
Tomato juice, 1 cup	1/2 cup tomato sauce plus 1/2 cup water
Yeast, 1 tablespoon, active dry	1 cake compressed; or 1 package (1/4 ounce) active dry yeast
Yogurt, 1 cup plain	1 cup buttermilk or sour milk

HERBS AND SPICES

The term “spice” or “spices” often times is used in a general sense and is understood to mean any aromatic flavoring material of vegetable origin. Inasmuch as this term is abundantly used, it is unfortunately a misnomer. There are significant differences that a personal chef should understand about herbs and spices.

- ♦ **Spices:** Aromatic natural products which are the dried seeds, buds, fruit or flower parts, bark or roots of plants, usually of tropical origin.
- ♦ **Herbs:** Aromatic leaves and sometimes the flowers of plants, usually of temperate origin.
- ♦ **Blend:** A mixture of spices and herbs and other flavoring materials either ground or whole.
- ♦ **Condiment:** Any spice or herb; but more frequently a pungent, prepared mixture of seasonings sometimes in liquid form.

Tastes differ greatly; therefore, it is difficult to give exact and precise directions for seasoning. What may be the ultimate to one person, may be objectionable to another. The seasoning of food must vary to suit the tastes of those whom you are serving. One important rule to remember is that seasonings should be used in small quantities, particularly if it is a new flavor, as one always may add more if desired, but it is impossible to correct or remove seasoning if too much has been used initially.

Seasonings of all kinds should enhance the natural flavor of food, never overpower it. Of course, there always will be a few exceptions to any rule, as is the case in dishes such as curry or chili. Spices and herbs make it possible for you to serve food which has variety and is more appetizing in aroma, more appealing in color, tastier and more digestible.

Fresh vs. Dried

When at all possible, you should cook using fresh herbs. There is no comparison to the feel, texture, flavor and look of an entree prepared using fresh herbs. When using fresh herbs, the herbs usually are added near the middle or end of the cooking process. When using dried herbs, the dried herbs often are added at the beginning of the recipe. This allows time for moisture to penetrate the herb and thus release the flavor contained therein. Because of the time necessary for herbs to release their full flavor, avoid adding dried herbs late in a recipe.

Allspice: Whole, ground. Small brown berry; flavor resembles blend of cinnamon, cloves and nutmeg. Use in sausages and braised meats, poached fish, stewed fruits, pies, puddings.

Anise Seed: Whole, ground. Small seed; licorice flavor. Use in cookies, pastries, breads.

Basil: Crushed leaves. Aromatic leaf; member of mint family. Use with tomatoes and tomato dishes, pesto, egg dishes, lamb chops, eggplant, peas, squash.

Bay Leaves: Whole. Stiff, dark green, oblong leaves; pungent aroma. Use in stocks, sauces, stews, braised meats.

Caraway Seed: Whole. Dark brown, curved seed; familiar rye bread seasoning. Use in rye bread, cabbage, sauerkraut, pork, cheese spreads, eastern European dishes.

Cardamom: Whole pod, ground seed. Tiny brown seeds inside white or green pod; sweet and aromatic; expensive. Use in pickling, Danish pastries, curries.

Cayenne (red pepper): Ground. Ground form of hot red pepper; looks like paprika, but is extremely hot. Use in small amounts in many sauces, soups, meat, fish, egg and cheese dishes.

Celery Seed: Whole, ground, ground mixed with salt (celery salt). Tiny brown seeds with strong celery flavor. Use in salads, cole slaw, salad dressings, tomato products.

Chervil: Crushed leaves. Herb with mild parsley flavor. Soups, salads, sauces, egg and cheese dishes.

Chili powder: Ground blend. Blend of spices including cumin, chili peppers, oregano, garlic. Use in chili and Mexican dishes, egg dishes, appetizers, ground meat.

Chives: Fresh, dried, frozen. Glasslike herb with onion flavor. Use in salads, egg and cheese dishes, and soups.

Cinnamon: Sticks, ground. Aromatic bark of cinnamon or cassia trees. Use in pastries, breads, desserts, cooked fruits, ham, sweet potatoes, hot beverages.

Cloves: Whole, ground. Dried flower buds of a tropical tree; pungent, sweet flavor. Whole: use in marinades, stocks, sauces, braised meats, ham, pickling. Ground: use in cakes, pastries, fruits.

Coriander: Whole, ground. Round, light brown, hollow seed; slightly sweet, musty flavor. Use in pickling, sausage, pork, curried dishes, gingerbread.

Cumin Seed: Whole, ground. Small seed resembling caraway, but lighter in color. Ingredient of curry and chili powders; use in sausages and meats, egg and cheese dishes.

Curry Powder: Ground blend. A mixture of up to 16 to 20 spices, including red pepper, turmeric, cumin, coriander, ginger, cloves, cinnamon, black pepper; different brands vary greatly in flavor. Use in curried dishes, eggs, vegetables, fish, soups, rice.

Dill: Crushed leaves (called “dill weed”), whole seed. Herb and seed with familiar “dill pickle” flavor; seed is more pungent than the herb. Seed: use in pickling, sauerkraut, soups. Herb: use in salads, cheese dishes, fish and shellfish, some vegetables.

Fennel: Whole seed. Greenish-brown seeds similar in flavor to anise, but larger size. Use in Italian sausage, tomato sauce, fish.

Garlic: Fresh: whole bulbs. Dried: granulated, powder and mixed with salt. Strong, aromatic member of onion family; fresh bulbs composed of many small cloves. Use in a wide variety of foods.

Ginger: Whole, ground (also fresh and candied or crystalized). Light brown, knobby root of ginger plant. Use in baked goods and desserts, fruits, curried dishes, braised meats. Fresh: use in Chinese and other oriental dishes.

Juniper Berries: Whole. Slightly soft, purple berries with “piney” flavor; principal flavoring of gin. Use in marinades, game dishes, sauerkraut.

Mace: Whole (“blade”), ground. Orange outer covering of nutmeg; similar flavor, but milder. Use in baked goods, desserts, fruits, sausages, pork, fish, spinach, squash, other vegetables.

Marjoram: Crushed leaves. Grey-green herb with pleasant aroma and slightly minty flavor, similar to oregano but much milder. Use in pates and ground meats, sauces, roast lamb, poultry and poultry stuffings.

Mint: Leaves. Aromatic herb with familiar cool flavor; two varieties: spearmint and peppermint. Use in lamb, fruits, tea and fruit beverages, peas, carrots, potatoes.

Mustard Seed: Whole, ground (also prepared mustard). Very pungent seed in two varieties, white or yellow, and brown. Brown is stronger. Use in cheese and egg dishes, pickling, meats, sauces and gravies.

Nutmeg: Whole, ground. Sweet, aromatic kernel of nutmeg fruit. Use in soups, cream sauces, chicken, veal, many vegetables (spinach, mushrooms, squash, potatoes), desserts, custards, breads, pastries.

Oregano: Leaves, ground. Pungent herb, known as the “pizza herb.” Use in Italian and Mexican dishes, tomato products.

Paprika: Ground. Ground form of a dried sweet red pepper. Spanish variety is brighter in color, mild in flavor; Hungarian is darker and more pungent. Spanish: used (or overused) primarily as garnish on light colored foods. Hungarian: goulash, braised meats and poultry, sauces.

Parsley: Fresh: whole sprigs, in bunches. Dried: in flakes. Most widely used herb. Dark green curley or flat leaves with delicate, sweet flavor. Use with almost all foods.

Pepper, black and white: Whole (peppercorns); ground fine, medium or coarse. Small black or creamy white, hard berry. Pungent flavor and aroma. Most widely used spice.

Pepper, red: See Cayenne Pepper.

Poppy Seed: Whole. Tiny blue-black seeds with faint but distinctive flavor. Garnish for breads and rolls, buttered noodles. Ground: use in pastry fillings.

Rosemary: Whole. Light green leaves resembling pine needles. Use in lamb, braised meats and poultry, soups, tomato and meat sauces.

Saffron: Whole (threads). Red stigma of saffron crocus. Gives bright yellow color to foods. Mild, distinctive flavor. Very expensive. Should be steeped in hot liquid before use. Use in rice dishes, poultry and seafoods, bouillabaisse, baked goods.

Sage: Whole, rubbed (finer consistency than whole leaves), ground. Pungent grey-green herb with fuzzy leaves. Use with pork, poultry, stuffings, sausage, beans, tomatoes.

Savory: Crushed leaves. Fragrant herb of mint family; summer savory is preferred to winter. Use in many meat, poultry, fish, egg and vegetable dishes.

Sesame Seeds: Whole (hulled or unhulled). Small yellowish seed with nutlike taste. Familiar hamburger bun garnish. High oil content. Use as bread and roll garnish.

Tarragon: Crushed leaves. Delicate green herb with a flavor that is both mint and licorice-like. Use in Bernaise sauce, tarragon vinegar, chicken, fish, salads and dressings, eggs.

Thyme: Crushed leaves, ground. Tiny brownish-green leaves; very aromatic. One of the most important and versatile of herbs. Use in stocks, soups, sauces, meats, poultry, tomatoes.

Turmeric: Ground. Intense yellow root of ginger family; mild but distinctive peppery flavor. A basic ingredient of curry powder. Use in pickles, relishes, salads, eggs, rice.

HERB AND SPICE SUBSTITUTIONS

Because a number of herbs and spices taste somewhat the same, the following can be interchanged in a pinch (substitute measure for measure):

HERBS:

Basil and Oregano
Chervil and Parsley
Fennel and Tarragon
Oregano and Marjoram
Celery Seeds and Minced Celery Tops
Caraway and Anise
Chervil and Tarragon
Fennel and Anise
Sage and Thyme

SPICES:

Allspice and equal parts of Cinnamon, Cloves and Nutmeg
Chili Peppers and Cayenne
Commercial Curry Powder and Homemade Curry Powder
Nutmeg and Mace

To make adjustments in recipes for quantity, follow these guidelines:

Quantity being made	Herb and Spice adjustment
2 times the recipe	Use 1-1/2 times the amount originally called for.
3 times the recipe	Use 2 times the amount originally called for.
4 times the recipe	Use 2-1/2 times the amount originally called for.

LIQUID AND DRY MEASURE EQUIVALENTS

MEASURE EQUIVALENTS

Pinch or dash.....	= less than 1/8 teaspoon
3 teaspoons.....	= 1 tablespoon
2 tablespoons.....	= 1 fluid ounces = 1/4 deciliter (liquid), 30 grams dry
1 only jigger	= 1-1/2 fluid ounces = 3 tablespoons
4 tablespoons.....	= 1/4 cup
5 tablespoons, plus 1 teaspoon.....	= 1/3 cup
8 tablespoons.....	= 1/2 cup = 4 ounces = 1 deciliter
10 tablespoons, plus 2 teaspoons	= 2/3 cup
12 tablespoons.....	= 3/4 cup
16 tablespoons.....	= 1 cup
1 only cup.....	= 8 fluid ounces
2 only cups	= 1 pint = 1/2 quart = 1 lb.=1/2 liter (liquid) 450 gram dry
4 only cups	= 2 pints = 1 quart = 32 ounces = 1 liter
1 only quart	= 32 fluid ounces
16 only cups	= 4 quarts = 1 gallon = 128 ounces = 3-3/4 liters

Dry Weights:

4 only ounces	= 1/4 pound
8 only ounces	= 1/2 pound
16 only ounces	= 1 pound
8 only quarts.....	= 2 gallons (dry measure) = 1 peck = 7-1/4 kilograms
4 only pecks	= 1 bushel

Fractional Measures:

1/2 of 1/4 cup	= 2 tablespoons
1/2 of 1/3 cup	= 2 tablespoons plus 2 teaspoons
1/2 of 3/4 cup	= 1/4 cup plus 2 tablespoons
1/3 of 1/4 cup	= 1 tablespoon plus 1 teaspoon
1/3 of 1/3 cup	= 1 tablespoon plus 2-1/3 teaspoons
1/3 of 1/2 cup	= 2 tablespoons plus 2 teaspoons
1/3 of 2/3 cup	= 3 tablespoons plus 1-2/3 teaspoons
1/3 of 3/4 cup	= 1/4 cup

METRIC CONVERSION CHART

To convert measurements into their equivalents in another system, use these factors:

From	To	Formula
Ounces	Grams	multiply ounce figure by 28.3 to get number of grams
Grams	Ounces	multiply gram figure by 0.0353 to get number of ounces
Pounds	Grams	multiply pound figure by 453.59 to get number of grams
Pounds	Kilograms	multiply pound figure by 0.45 to get number of kilograms
Ounces	Milliliters	multiply ounce figure by 30 to get number of milliliters
Cups	Liters	multiply cup figure by 0.24 to get number of liters
Fahrenheit	Celsius	subtract 32 from the Fahrenheit figure, multiply by 5, then divide by 9 to get Celsius figure
Celsius	Fahrenheit	multiply Celsius figure by 9, divide by 5, then add 32 to get Fahrenheit figure
Inches	Centimeters	multiply inch figure by 2.54 to get number of centimeters
Centimeters	Inches	multiply centimeter figure by 0.39 to get number of inches