

University of Missouri Extension

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In a Pinch: Ingredient Substitution

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Allspice, 1 teaspoon

- 1/2 teaspoon cinnamon and 1/2 teaspoon ground cloves

Apple pie spice, 1 teaspoon

- 1/2 teaspoon cinnamon, 1/4 teaspoon nutmeg and 1/8 teaspoon cardamom

Arrowroot starch, 1-1/2 teaspoon

- 1 tablespoon flour
- 1-1/2 teaspoons cornstarch

Baking powder, 1 teaspoon

- 1/3 teaspoon baking soda and 1/2 teaspoon cream of tartar
- 1/4 teaspoon baking soda and 1/2 cup sour milk or buttermilk (decrease liquid called for in recipe by 1/2 cup)
- 1/4 teaspoon baking soda and 1/2 tablespoon vinegar or lemon juice used with sweet milk to make 1/2 cup (decrease liquid called for in recipe by 1/2 cup)

Bay leaf, 1 whole

- 1/4 teaspoon crushed

Beau Monde seasoning, 1 teaspoon

- 1 teaspoon seasoning or seasoned salt
- 1/2 teaspoon table salt
- 1/2 teaspoon Mei Yen seasoning

Broth, beef or chicken, 1 cup

- 1 bouillon cube dissolved in 1 cup boiling water
- 1 envelope powdered broth base dissolved in 1 cup boiling water
- 1 teaspoon powdered broth base dissolved in 1 cup boiling water

Butter, 1 cup

- 7/8 to 1 cup hydrogenated fat and 1/2 teaspoon salt
- 7/8 cup lard plus 1/2 teaspoon salt
- 1 cup margarine

Catsup, 1 cup

- 1 cup tomato sauce, 1/2 cup sugar and 2 tablespoons vinegar (for use in cooking)

Chicken stock base, instant, 1-1/2 teaspoons

- 1 chicken bouillon cube

Chicken stock base, instant, 1 tablespoon dissolved in 1 cup water

- 1 cup canned or homemade chicken broth or chicken stock

Chili sauce, 1 cup

- 1 cup tomato sauce, 1/4 cup brown sugar, 2 tablespoons vinegar, 1/4 teaspoon cinnamon, dash of ground cloves and dash of allspice

Chives, finely chopped, 2 teaspoons

- 2 teaspoons green onion tops, finely chopped

Chocolate chips, semisweet, 1 ounce

- 1 ounce sweet cooking chocolate

Chocolate, semisweet, 1-2/3 ounces

- 1 ounce unsweetened chocolate and 4 teaspoons sugar

Chocolate, semisweet chips, melted, 6-ounce package

- 2 squares unsweetened chocolate, 2 tablespoons shortening and 1/2 cup sugar

Chocolate, unsweetened, 1 ounce or square

- 3 tablespoons cocoa and 1 tablespoon fat

Cocoa, 1/4 cup or 4 tablespoons

- 1 ounce (square) chocolate (decrease fat called for in recipe by 1/2 tablespoon)

Coconut, 1 tablespoon grated, dry

- 1-1/2 tablespoons fresh coconut, grated

Coconut cream, 1 cup

- 1 cup whipping cream

Coconut milk, 1 cup

- 1 cup whole or 2 percent milk

Corn syrup, 1 cup

- 1 cup sugar and 1/4 cup liquid (use whatever liquid is called for in the recipe)
- 1 cup honey

Cornstarch for thickening, 1 tablespoon

- 2 tablespoons all-purpose flour
- 2 tablespoons granular tapioca

Cracker crumbs, 3/4 cup

- 1 cup dry bread crumbs

Cream, half-and-half, 1 cup

- 7/8 cup milk and 1/2 tablespoon butter or margarine
- 1 cup evaporated milk, undiluted

Cream, heavy, 36 percent to 40 percent fat, 1 cup

- 3/4 cup milk and 1/3 cup butter or margarine (for use in cooking and baking)

Cream, light, 18 percent to 20 percent fat, 1 cup

- 3/4 cup milk and 3 tablespoons butter or margarine (for use in cooking and baking)
- 1 cup evaporated milk, undiluted

Cream, whipped

- Chill a 13 ounce can of evaporated milk for 12 hours. Add 1 teaspoon lemon juice. Whip until stiff.

Dill plant, fresh or dried, 3 heads

- 1 tablespoon dill seed.

Egg, 1 whole, 3 tablespoons

- 3 tablespoons and 1 teaspoon thawed frozen egg
- 2 1/2 tablespoons sifted, dry whole egg powder and 2 1/2 tablespoons lukewarm water
- 2 yolks and 1 tablespoon water (in cookies)
- 2 yolks (in custards, cream fillings and similar mixtures)

Egg white, 1 white, 2 tablespoons

- 2 tablespoons thawed frozen egg white
- 2 teaspoons sifted, dry egg white powder and 2 tablespoons lukewarm water

Egg yolk, 1 yolk, 1-1/2 tablespoons

- 2 tablespoons sifted, dry egg yolk powder and 2 teaspoons water
- 1-1/3 tablespoons thawed frozen egg yolk

Flour, all-purpose, for thickening, 1 tablespoon

- 1-1/2 teaspoons cornstarch, arrowroot starch, potato starch or rice starch
- 1 tablespoon granular tapioca
- 1 tablespoon waxy rice flour
- 1 tablespoon waxy corn flour
- 2 tablespoons browned flour
- 1-1/2 tablespoons whole wheat flour
- 1/2 tablespoon whole wheat flour and 1/2 tablespoon all-purpose flour

Flour, all-purpose, 1 cup sifted

Note

Specialty flours added to yeast bread recipes will result in a reduced volume and a heavier product.

- 1 cup and 2 tablespoons cake flour
- 1 cup minus 2 tablespoons unsifted all-purpose flour
- 1-1/2 cups bread crumbs
- 1 cup rolled oats
- 1/3 cup cornmeal or soybean flour and 2/3 cup all-purpose flour
- 1/2 cup cornmeal, bran, rice flour, rye flour or whole wheat flour and 1/2 cup all-purpose flour
- 3/4 cup whole wheat flour or bran flour and 1/4 cup all-purpose flour
- 1 cup rye or rice flour
- 1/4 cup soybean flour and 3/4 cup all-purpose flour

Flour, cake, 1 cup sifted

- 1 cup minus 2 tablespoons sifted all-purpose flour

Flour, self-rising, 1 cup

- 1 cup minus 2 teaspoons all-purpose flour and 1-1/2 teaspoons baking powder and 1/2 teaspoon salt

Flour, whole wheat

- Substitute whole wheat flour for 1/4 to 1/2 of white flour called for in recipe

Garlic, 1 clove, small

- 1/8 teaspoon garlic powder

Gelatin, flavored, 3-ounce package

- 1 tablespoon plain gelatin and 2 cups fruit juice

Ginger, 1/8 teaspoon, powdered

- 1 tablespoon candied ginger rinsed in water to remove sugar and finely cut
- 1 tablespoon raw ginger

Herbs, fresh, 1 tablespoon, finely cut

- 1 teaspoon dried herbs

Honey, 1 cup

- 1-1/4 cups sugar and 1/4 cup liquid (use liquid called for in recipe)

Horseradish, 1 tablespoon, fresh

- 2 tablespoons bottled

Lemon, 1 teaspoon juice

- 1/2 teaspoon vinegar

Lemon, 1 medium

- 2 to 3 tablespoons juice and 1 to 2 teaspoons rind

Lemon peel, dried, 1 teaspoon

- 1 to 2 teaspoons grated fresh lemon peel
- Grated peel of 1 medium lemon
- 1/2 teaspoon lemon extract

Macaroni, 4 cups cooked, 2 cups, uncooked

- 2 cups spaghetti, uncooked
- 4 cups noodles, uncooked

Maple sugar, 1/2 cup

- 1 cup maple syrup

Maple sugar, grated and packed, 1 tablespoon

- 1 tablespoon white, granulated sugar

Marshmallows, miniature, 1 cup

- 10 large

Mayonnaise for use in salads and salad dressings, 1 cup

- 1/2 cup yogurt and 1/2 cup mayonnaise
- 1 cup sour cream
- 1 cup cottage cheese pureed in a blender

Mei Yen seasoning, 1 teaspoon

- 1 teaspoon Beau Monde seasoning
- 1/2 teaspoon table salt

Milk, buttermilk, 1 cup

- 1 cup plain yogurt

Milk, buttermilk or sour, 1 cup

- 1 cup minus one tablespoon sweet milk and 1 tablespoon lemon juice or vinegar (allow to stand 5 to 10 minutes)
- 1 cup sweet milk and 1-3/4 teaspoons cream of tartar

Milk, evaporated, whole or skim, 1/2 cup plus 1/2 cup water

- 1 cup liquid whole milk

Milk, skim, 1 cup

- 4 to 5 tablespoons nonfat dry milk powder and enough water to make one cup, or follow manufacturer's directions

Milk, skim, 1/4 cup

- 4 teaspoons nonfat dry milk powder plus water to make 1/4 cup, or follow manufacturer's directions
- 2 tablespoons evaporated skim milk and 2 tablespoons water

Milk, sweetened condensed, 1 can, about 1-1/3 cup

- Heat the following ingredients until sugar and butter are dissolved:
 - 1/3 cup and 2 tablespoons evaporated milk
 - 1 cup sugar
 - 3 tablespoons butter or margarine

Milk, sweetened condensed, 1 cup

- Heat the following ingredients until sugar and butter are dissolved:
 - 1/3 cup evaporated milk
 - 3/4 cup sugar
 - 2 tablespoons butter or margarine
- Add 1 cup plus 2 tablespoons dry milk to 1/2 cup warm water. Mix well. Add 3/4 cup sugar and stir until smooth.

Milk, whole, 1 cup

- 1 cup reconstituted nonfat dry milk and 2 teaspoons butter or margarine
- 1/2 cup evaporated milk and 1/2 cup water
- 4 tablespoons whole dry milk and 1 cup water, or follow manufacturer's directions
- 1 cup fruit juice or 1 cup potato water (for use in baking)
- 1/4 cup nonfat dry milk and 2 teaspoons butter or margarine and 7/8 cup water

Mushrooms, 1 pound fresh

- 3 ounces dried mushrooms
- 10-ounce can (8 ounces drained weight)

Mushrooms, powdered, 1 tablespoon

- 3 tablespoons whole, dried mushrooms
- 4 ounces fresh
- 2 ounces canned

Mustard, dry, 1 teaspoon

- 1 tablespoon prepared mustard

Onion, fresh, 1 small

- Rehydrate 1 tablespoon instant minced onion

Onions, instant minced, 1 tablespoon

- 2 tablespoons fresh onion, chopped

Onion powder, 1 tablespoon

- 1 medium onion, chopped
- 4 tablespoons fresh chopped onion

Orange, 1 medium

- 6 to 8 tablespoons juice

Orange peel, dried, 1 tablespoon

- 2 to 3 tablespoons grated fresh orange peel
- Grated peel of 1 medium orange

Orange peel, dried, 2 teaspoons

- 1 teaspoon orange extract

Orange peel, fresh, 1 medium

- 2 to 3 tablespoons grated fresh orange peel

Parsley, dried, 1 teaspoon

- 3 teaspoons fresh parsley, chopped

Peppers, green bell, 1 tablespoon, dried

- 3 tablespoons fresh green pepper, chopped

Peppers, red bell, 1 tablespoon, dried

- 3 tablespoons fresh red bell pepper, chopped
- 2 tablespoons chopped pimiento

Peppermint, dried, 1 tablespoon

- 1/4 cup chopped fresh mint

Pimiento, 2 tablespoons, chopped

- Rehydrate 1 tablespoon dried red bell peppers
- 3 tablespoons fresh red bell pepper, chopped

Pumpkin pie spice, 1 teaspoon

- 1/2 teaspoon cinnamon, 1/4 teaspoon ginger, 1/8 teaspoon allspice and 1/8 teaspoon nutmeg

Rennet, 1 tablet

- 1 tablespoon liquid rennet

Rice. 3 cups cooked, 1 cup regular, uncooked

- 1 cup uncooked converted rice
- 1 cup uncooked brown rice
- 1 cup uncooked wild rice

Shortening, melted, 1 cup

- 1 cup cooking oil (cooking oil should not be substituted if recipe does not call for melted shortening)

Shortening, solid, used in baking, 1 cup

- 1 cup minus 2 tablespoons lard
- 1-1/8 cups butter (decrease salt called for in recipe by 1/2 teaspoon)
- 1-1/8 cups margarine (decrease salt called for in recipe by 1/2 teaspoon)

Sour cream, cultured, 1 cup

- 3/4 cup sour milk and 1/3 cup butter or margarine
- 3/4 cup buttermilk and 1/3 cup butter or margarine
- Blend until smooth: 1/3 cup buttermilk, 1 tablespoon lemon juice and 1 cup cottage cheese
- 1 cup plain yogurt
- 3/4 cup milk, 3/4 teaspoon lemon juice and 1/3 cup butter or margarine

Spearmint, dried, 1 tablespoon

- 1/4 cup chopped fresh mint

Sugar, brown, 1 cup firmly packed

- 1 cup granulated sugar

Sugar, white, 1 teaspoon

- 1/8 teaspoon noncaloric sweetener solution or follow manufacturer's directions

Sugar, white, 1 cup

- 1 cup corn syrup (decrease liquid called for in recipe by 1/4 cup)
- 1-1/3 cup molasses (decrease liquid called for in recipe by 1/3 cup)
- 1 cup powdered sugar
- 1 cup brown sugar, firmly packed
- 1 cup honey (decrease liquid called for in recipe by 1/4 cup)
- 1 3/4 cup confectioners' sugar, packed

Tapioca, granular, 1 tablespoon

- 2 tablespoons pearl tapioca

Tomatoes, Fresh, 2 cups chopped

- 16-ounce can (may need to drain)

Tomatoes, Juice, 1 cup

- 1/2 cup tomato sauce and 1/2 cup water

Worcestershire Sauce, 1 teaspoon

- 1 teaspoon bottled steak sauce

Yeast, active dry, 1 tablespoon

- 1 cake yeast, compressed
- 1 package (1/4 ounce) active dry yeast

Yogurt, plain, 1 cup

- 1 cup buttermilk
- 1 cup cottage cheese blended until smooth
- 1 cup sour cream

Note

Have you ever been in the middle of preparing a recipe and discovered you were out of an important ingredient? If so, you had to decide on a solution to the problem - make a suitable substitute for that ingredient from supplies available in your pantry, or make a trip to the grocery store.

The jaunt to the store ensures that you get the specific ingredient the recipe calls for. But, it can also take valuable time and energy you might not have.

Ingredient substitution - or using similar ingredients that perform the same function in a food - is the easiest alternative. The key to success with ingredient substitution is being able to put your finger on the information when you need it. The following information is designed to help you do just that.

Many substitutions are simply another form of the needed ingredient. For example, 1/8 teaspoon of garlic powder can be substituted for one small garlic clove. These simple substitutions are called equivalents because the ingredients are similar. When equivalent ingredients are substituted, very little, if any, change will be noticed in the finished product.

Another type of substitution involves using an ingredient with properties similar to the ingredient called for in the recipe. An example would be substituting plain yogurt for sour cream in a salad dressing.

Each ingredient in a recipe has a specific function. Therefore, this kind of substitution can result in a product with different quality characteristics. This means that flavor, color or texture of the product may change because of an ingredient substitution. For this reason, we suggest that this kind of substitution be done only in an emergency.

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