

# Working With the Recipes

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### **To help you use the new recipes from USDA, this guide:**

- provides background on how the recipes were selected, developed, and field-tested
- takes you through each section of the recipe format, explaining how the information is organized
- explains and demonstrates the uses of the nutrient analysis provided for each recipe
- includes instructions on substituting ingredients and adjusting recipes, as well as tips for maximizing quality

# What's Special About the New Recipes?

## *What's special about the new recipes? Plenty!*

### **For one thing, the recipes reflect what's happening with nutrition today.**

They include lots of fruits, vegetables, and grains, and they'll help you add variety. You'll also find them to be as low in fat as possible, without losing flavor and appeal.

A menu of these new recipes will be a *healthy* experience for children. You'll be giving them needed nutrients and energy—without a lot of added fat. You'll also be helping them *learn* what it means *to eat for good health*.

### **The recipes will help you “win children over” with some exciting new flavors... and help you prepare some of their all-time favorites in ways that make them more healthful.**

A palette of diverse cultures is presented here. You'll find, for example, Vegetable Frittata and Mexican Pizza from South-of-the-Border...and Chicken Stir-Fry and Teriyaki Chicken from the Orient.

Adding a taste of Europe are such things as Toasted Cheese and Tomato Sandwich from England, Herbed Broccoli and Cauliflower Polonaise from Poland, and Minestrone, Vegetable Lasagna, and Pizzaburgers from Italy.

### **The recipes have been carefully developed with children's TASTES and their good HEALTH in mind.**

To support the goal of low fat, the recipes call for reduced-fat mozzarella and cheddar cheeses as well as reduced-fat mayonnaise, lowfat milk, and lowfat yogurt.

Versions of lower fat favorites are included, such as brownies that use applesauce as a fat substitute. The taste of the recipes is the same familiar one, just the fat content has been changed.

The use of low-sodium soup and gravy bases helps to reduce the sodium level in the recipes.

### **AND, the recipes have been designed with YOU—the food preparer—in mind.**

We hope, as you read through, and finally, use these recipes you will get a sense of our efforts to tailor the recipes to your needs. We've written the recipes with a limited number of steps, bearing in mind the equipment which you might have available.

# What the Recipes Will Help You Do...

The standardized recipes in this packet are designed to help you serve healthy, attractive breakfasts, lunches, and snacks that will appeal to children. To meet the needs of today's child care programs, recipes must:

- be acceptable to children
- be economical
- be lower in fat and moderate in the use of added salt
- use the minimum number of ingredients and steps for preparation
- make maximum use of USDA-donated commodities
- accommodate regional and local needs and preferences

By using these recipes, you should be able to do the following:

## 1) Ensure product quality.

The recipes developed for this project were field-tested in child care centers in seven regions across the United States.

Taste panels of adults, and later children, rated products for their texture, taste, aroma, appearance, and overall quality. As a result of this testing, the recipes were adapted to meet the needs and preferences of children.

## 2) Accurately predict number of portions.

This will allow you to simplify purchasing procedures, reduce the amount of unnecessary inventory, and eliminate excessive amounts of leftovers.

## 3) Adjust the flavoring of each recipe to meet the expectations of the children you serve in your center.


Many of the recipes provide information concerning additional ingredients that can be used to adjust the overall flavor of a recipe to more closely meet regional preferences. You'll find these listed on individual recipe cards under optional ingredients or in a section called "Special Tips."

## 4) Obtain maximum benefit from the use of USDA-donated foods.

Because centers sometimes use USDA-donated foods in preparing meals, many of the recipes were developed and tested using available USDA commodities. This will help ensure that the final product of any recipe produced in the field will meet the same high standards for *quality* and *quantity* intended by the recipe developers.

## 5) Evaluate the nutritional value of each of the recipes.

You will find nutrition facts at the end of each recipe in a section called "Nutrients Per Serving." All of the recipes have been developed with the goal of expanding variety, reducing the overall level of added fat, and increasing dietary fiber.



## **6) Evaluate what each recipe contributes toward meeting the meal pattern requirements of USDA’s Child and Adult Care Food Program (CACFP).**

For your convenience, the recipe format includes information on the food component contribution of one portion. For example, a recipe might specify: “1 serving provides the equivalent of 1 slice of bread.”

## **7) Increase employee confidence.**

The recipes provide clear, concise directions that cover all aspects of production. This will help improve employee morale by reducing the confusion associated with non-standardized recipes.

First-rate results will also boost morale. The recipes are reliable and will produce consistent, high-quality meals. Employees will be confident and proud that they are serving the best quality products available.

# Quality - Quality - Quality

**The items you serve to each child are only as good as the quality of ingredients put into each recipe!**

**To ensure first-rate results:**

- **Purchase the finest quality possible.**

If the brand of lemon gelatin you select is weakly flavored because it is inexpensive, you will not have a strong lemon flavor in the end product.

If the brand of chicken base has “salt” listed as the first ingredient, meaning it is the predominant ingredient, your Chicken Chowder will not have a meaty chicken flavor.

- **Store and handle carefully.**

If the broccoli you put into the Broccoli Salad is wilted, the salad will not be crisp. And, many nutrients will be lost by the time you serve it.

If the frozen green beans in the Vegetable Medley have been improperly handled by either the distributor or you—thawed and refrozen, thawed and refrozen—your end product will not be of the best quality possible.

Purchase from reliable sources and check your storage and handling procedures to assure topnotch *quality - quality - quality*.

- **Check your cooking techniques.**

If your cakes and brownies are overbaked because you are not using an oven thermometer to maintain exact oven temperatures, they will be dried out, tough, and crumbly.

If the stir-fry is not cooked in batches, or if it is *held* for a long period of time, the vegetables will not be brightly colored and crispy. They will be limp and uninviting.

*Batch-cooking* is cooking in small quantities to maintain high quality throughout the serving period. Each preparation should not exceed what can be served in 15 minutes. This means there will be *continuous* cooking throughout the meal to guarantee quality.

# Working With the New Recipes

On the following pages, we'll take a close look at how the information is organized on the recipe cards.

In this first example, the top section of the **Chicken Stir-Fry** recipe is highlighted.

At the top of the card, you'll find:

- the recipe title
- the recipe's contribution toward meeting CACFP meal pattern requirements
- the recipe file location—in other words, the recipe's category and number, such as "D-18" for Chicken Stir-Fry

Here are more details on each:

## ■ The recipe title

Recipe titles have been kept as straightforward as possible. Descriptive words related to regions, texture, or flavor have been avoided. Phonetic pronunciations have been provided for the recipes when necessary.

## ■ The recipe's contribution to CACFP meal pattern requirements

This indicates the general area or areas in which a particular recipe contributes toward meeting CACFP meal pattern requirements. Our sample recipe, Chicken Stir-Fry, contributes to both the Meat and Vegetable components.

<b>Chicken Stir-Fry</b>						
Meat • Vegetable				Main Dishes D-18		
Ingredients	25 Servings		50 Servings		For _____ Servings	Directions
	Weight	Measure	Weight	Measure		
Low-sodium soy sauce .....	.....	1/2 cup .....	.....	1 cup .....	.....	1. Dissolve cornstarch in soy sauce. Add spices.
Cornstarch .....	.....	1/4 cup 3 Tbsp .....	4 oz .....	3/4 cup 2 Tbsp .....	.....	
Ground ginger .....	.....	1/4 tsp .....	.....	1/2 tsp .....	.....	
Granulated garlic .....	.....	1 Tbsp 1 1/2 tsp .....	.....	3 Tbsp .....	.....	
White pepper .....	.....	1 tsp .....	.....	2 tsp .....	.....	
Low-sodium chicken stock, non-MSG .....	.....	1 qt .....	.....	2 qt .....	.....	2. Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer. 3. Cook for 3 to 5 minutes, until thickened. Remove from heat.
<b>Fresh mixed vegetables:</b>						<b>Prepare no more than 50 portions per batch.</b>  4. Saute sliced carrots in oil for 4 minutes. Add onions, cook for 1 more minute. Add broccoli and cook for 2 more minutes. Remove to steamtable pan. Keep warm.
*Fresh broccoli, chopped .....	2 lb 13 oz .....	1 gal .....	5 lb 10 oz .....	2 gal .....	.....	
*Fresh carrots, peeled, 1/4" slices .....	2 lb 13 oz .....	2 qt 1 cup .....	5 lb 10 oz .....	1 gal 2 cups .....	.....	
*Onions, diced .....	10 oz .....	2 cups .....	1 lb 4 oz .....	1 qt .....	.....	
<b>OR</b>						
+Frozen mixed Oriental vegetables .....	6 lb 4 oz .....	1 gal 3 qt .....	12 lb 8 oz .....	3 gal 2 qt .....	.....	
Vegetable oil .....	.....	1/4 cup .....	.....	1/2 cup .....	.....	

## ■ Recipe file location

The packet of recipes has been divided into nine basic categories. They are as follows:

- A. Grains/Breads
- B. Desserts
- C. Dips, Sauces, and Toppings
- D. Main Dishes
- E. Salads and Salad Dressings
- F. Sandwiches
- G. Snacks
- H. Soups
- I. Vegetables

Please note that Category G, Snacks, *is new*.

Each recipe in the collection has been assigned: (1) a specific category and (2) a number indicating its place within this category.

For example, a recipe with a designation of B-17 would indicate that this recipe is Number 17 within the Desserts category.

## ■ Ingredients

In this next example, the *first column* of the **Chicken Stir-Fry** recipe is highlighted. This section lists the ingredients.

- **First, note *the order* in which ingredients are listed:**

Ingredients are listed in the same order as they are required for production. Horizontal lines separate into groups the ingredients that are used together.

<b>Chicken Stir-Fry</b>						
Meat • Vegetable				Main Dishes D-18		
Ingredients	25 Servings		50 Servings		For _____ Servings	Directions
	Weight	Measure	Weight	Measure		
Low-sodium soy sauce .....	.....	1/2 cup .....	.....	1 cup .....	.....	1. Dissolve cornstarch in soy sauce. Add spices.
Cornstarch .....	.....	1/4 cup 3 Tbsp .....	4 oz .....	3/4 cup 2 Tbsp .....	.....	
Ground ginger .....	.....	1/4 tsp .....	.....	1/2 tsp .....	.....	
Granulated garlic .....	.....	1 Tbsp 1 1/2 tsp .....	.....	3 Tbsp .....	.....	
White pepper .....	.....	1 tsp .....	.....	2 tsp .....	.....	
Low-sodium chicken stock, non-MSG .....	.....	1 qt .....	.....	2 qt .....	.....	2. Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer. 3. Cook for 3 to 5 minutes, until thickened. Remove from heat.
<b>Fresh mixed vegetables:</b>						<b>Prepare no more than 50 portions per batch.</b>  4. Saute sliced carrots in oil for 4 minutes. Add onions, cook for 1 more minute. Add broccoli and cook for 2 more minutes. Remove to steamtable pan. Keep warm.
*Fresh broccoli, chopped .....	2 lb 13 oz .....	1 gal .....	5 lb 10 oz .....	2 gal .....	.....	
*Fresh carrots, peeled, 1/4" slices .....	2 lb 13 oz .....	2 qt 1 cup .....	5 lb 10 oz .....	1 gal 2 cups .....	.....	
*Onions, diced .....	10 oz .....	2 cups .....	1 lb 4 oz .....	1 qt .....	.....	
<b>OR</b>						
+Frozen mixed Oriental vegetables .....	6 lb 4 oz .....	1 gal 3 qt .....	12 lb 8 oz .....	3 gal 2 qt .....	.....	
Vegetable oil .....	.....	1/4 cup .....	.....	1/2 cup .....	.....	

- **Second, note *the form* in which ingredients are listed.**

You'll see that our sample recipe specifies:

**Fresh carrots, peeled, 1/4" slices.**

This tells you the carrots are to be purchased fresh, then peeled and sliced into 1/4"-thick slices prior to being used in the recipe.

**The purchase state of the ingredient (such as fresh, frozen, canned) appears before the ingredient name. And, the form of the ingredient (such as peeled, sliced, etc.) comes after the ingredient name.**

In order to obtain the maximum possible quality during production, it is *very important* that you follow the recipe exactly. The *purchase state* (fresh, canned, frozen, etc.) of your ingredients and *the form* (peeled, sliced, etc.) should always be the same as listed in the recipe.

**All of the recipes will be equally successful whether USDA-donated commodity foods or commercially available ingredients are used. However, where possible, the recipes have been developed and standardized using USDA commodity products.**

### When purchasing ingredients...

- **Select the best possible quality.**

The quality of the final product will rely heavily on the quality of ingredients used.

- **Purchase products that will produce the "healthiest" overall product.**

For example, our sample recipe for Chicken Stir-Fry calls for chicken stock, non-MSG (without monosodium glutamate). When purchasing bases, select brands that do *not* contain MSG and have a moderate level of sodium (salt).

Read food labels carefully. Food manufacturers must list ingredients in descending order by weight. So, if salt is the first ingredient listed, you know that the product contains more salt than anything else.



## Alternative ingredients

Alternative ingredients are listed in many of the recipes to give you flexibility when ordering. They may also help you accommodate limitations in labor or equipment.

This example shows how alternative ingredients appear in the recipe format. Several lines are highlighted.

As you can see, alternative ingredients are listed on separate lines and divided by the word “OR.” It is important that you select only *one* of the options provided. Do not add both the primary and the alternative ingredients to the recipe.

## In the Chicken Stir-Fry example:

You may choose to use the fresh mixed vegetables listed in the ingredients.

OR

You may choose to use the alternative, frozen mixed Oriental vegetables.

<b>Chicken Stir-Fry</b>						
Meat • Vegetable				Main Dishes D-18		
Ingredients	25 Servings		50 Servings		For Servings	Directions
	Weight	Measure	Weight	Measure		
Low-sodium soy sauce .....	.....	1/2 cup .....	.....	1 cup .....	.....	1. Dissolve cornstarch in soy sauce. Add spices.
Cornstarch .....	.....	1/4 cup 3 Tbsp .....	4 oz .....	3/4 cup 2 Tbsp .....	.....	
Ground ginger .....	.....	1/4 tsp .....	.....	1/2 tsp .....	.....	
Granulated garlic .....	.....	1 Tbsp 1 1/2 tsp .....	.....	3 Tbsp .....	.....	
White pepper .....	.....	1 tsp .....	.....	2 tsp .....	.....	
Low-sodium chicken stock, non-MSG .....	.....	1 qt .....	.....	2 qt .....	.....	2. Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer. 3. Cook for 3 to 5 minutes, until thickened. Remove from heat.
<b>Fresh mixed vegetables:</b>						<b>Prepare no more than 50 portions per batch.</b>  4. Saute sliced carrots in oil for 4 minutes. Add onions, cook for 1 more minute. Add broccoli and cook for 2 more minutes. Remove to steamtable pan. Keep warm.
*Fresh broccoli, chopped .....	2 lb 13 oz .....	1 gal .....	5 lb 10 oz .....	2 gal .....	.....	
*Fresh carrots, peeled, 1/4" slices .....	2 lb 13 oz .....	2 qt 1 cup .....	5 lb 10 oz .....	1 gal 2 cups .....	.....	
*Onions, diced .....	10 oz .....	2 cups .....	1 lb 4 oz .....	1 qt .....	.....	
<b>OR</b>						
+Frozen mixed Oriental vegetables .....	6 lb 4 oz .....	1 gal 3 qt .....	12 lb 8 oz .....	3 gal 2 qt .....	.....	
Vegetable oil .....	.....	1/4 cup .....	.....	1/2 cup .....	.....	

## ■ Optional ingredients

Some of the recipes include optional ingredients. These are typically used for seasoning and garnishing. If an ingredient is optional, the word “(optional)” will immediately follow it on the ingredient list.

Optional ingredients may be used to increase a recipe’s appeal in a particular area or region. While certain ingredients may be preferred by children in some regions of the country, they may not appeal to others.

Optional ingredients may also be used to change the meal pattern contribution. However, it’s important to note that optional ingredients are *not included* in the meal pattern contribution or in the nutrition facts listed under “Nutrients Per Serving.”

It’s also important to note that there are no special instructions under “Directions” for using the optional ingredients.

## ■ Weights and measures for 25 and 50 servings

In this example, the *center* of the recipe format is highlighted. This section provides the quantities you will need for producing 25 and 50 portions of the recipe.

**Weight measurements are given for dry and solid ingredients.**

The weight measurements are written in pounds (lb) and ounces (oz).

<b>Chicken Stir-Fry</b>						
Meat • Vegetable				Main Dishes D-18		
Ingredients	25 Servings		50 Servings		For _____ Servings	Directions
	Weight	Measure	Weight	Measure		
Low-sodium soy sauce .....	.....	1/2 cup .....	.....	1 cup .....	.....	1. Dissolve cornstarch in soy sauce. Add spices.
Cornstarch .....	.....	1/4 cup 3 Tbsp .....	4 oz .....	3/4 cup 2 Tbsp .....	.....	
Ground ginger .....	.....	1/4 tsp .....	.....	1/2 tsp .....	.....	
Granulated garlic .....	.....	1 Tbsp 1 1/2 tsp .....	.....	3 Tbsp .....	.....	
White pepper .....	.....	1 tsp .....	.....	2 tsp .....	.....	
Low-sodium chicken stock, non-MSG .....	.....	1 qt .....	.....	2 qt .....	.....	2. Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer. 3. Cook for 3 to 5 minutes, until thickened. Remove from heat.
<b>Fresh mixed vegetables:</b>						<b>Prepare no more than 50 portions per batch.</b>  4. Saute sliced carrots in oil for 4 minutes. Add onions, cook for 1 more minute. Add broccoli and cook for 2 more minutes. Remove to steamtable pan. Keep warm.
*Fresh broccoli, chopped .....	2 lb 13 oz .....	1 gal .....	5 lb 10 oz .....	2 gal .....	.....	
*Fresh carrots, peeled, 1/4" slices .....	2 lb 13 oz .....	2 qt 1 cup .....	5 lb 10 oz .....	1 gal 2 cups .....	.....	
*Onions, diced .....	10 oz .....	2 cups .....	1 lb 4 oz .....	1 qt .....	.....	
<b>OR</b>						
+Frozen mixed Oriental vegetables .....	6 lb 4 oz .....	1 gal 3 qt .....	12 lb 8 oz .....	3 gal 2 qt .....	.....	
Vegetable oil .....	.....	1/4 cup .....	.....	1/2 cup .....	.....	

Because it is sometimes necessary to use volume measure, the volume equivalents are also provided for the dry and solid ingredients if the amount is more than 2 ounces.

**Volume measurements are given for liquid ingredients. The volume measurements include:**

- teaspoons (tsp)
- tablespoons (Tbsp)
- cups
- quarts (qt)
- gallons (gal)

Spices, flavorings, and other ingredients of 2 ounces or less are given a volume measurement since most scales are not able to measure such a small quantity accurately.

**A note about baking:**

**When measuring dry ingredients you will be using in a baked product, it is very important that you measure the ingredients by weight whenever possible. This is because even slight variations in measurement can alter the quality of the final product.**

Consider the following:

- One pound of *unsifted* all-purpose flour can range from 2½ cups to 4 cups.
- One pound of *sifted* all-purpose flour can range from 3 cups to 4½ cups.

These examples make it easy to see why measuring the flour for a baked product only by *volume* can result in an inconsistent product.

## ■ Directions

**In our next example, the far-right column is highlighted. This section lists all the steps needed to prepare the recipe.**

**Each step is numbered in sequence and is directly across from the ingredients to which it applies. To facilitate production, closely related steps are grouped together with horizontal lines separating the groups.**

**The directions *include* instructions on:**

- mixing speeds and times
- cooking procedures
- panning procedures
- baking times and temperatures
- portioning directions
- garnishing and serving instructions

**The directions *do not* account for any advance preparation work that must be done in order to prepare the ingredients for recipe production. However, when scheduling, it is important to account for this pre-preparation phase.**

While the pre-preparation work may be minimal for some recipes, other recipes may benefit if some of the basic pre-preparation work is completed well in advance of the actual production.

# Chicken Stir-Fry

Meat • Vegetable

Main Dishes D-18

Ingredients	25 Servings		50 Servings		For _____ Servings	Directions
	Weight	Measure	Weight	Measure		
Low-sodium soy sauce .....	.....	1/2 cup .....	.....	1 cup .....	.....	1. Dissolve cornstarch in soy sauce. Add spices.
Cornstarch .....	.....	1/4 cup 3 Tbsp .....	4 oz .....	3/4 cup 2 Tbsp .....	.....	
Ground ginger .....	.....	1/4 tsp .....	.....	1/2 tsp .....	.....	
Granulated garlic .....	.....	1 Tbsp 1 1/2 tsp .....	.....	3 Tbsp .....	.....	
White pepper .....	.....	1 tsp .....	.....	2 tsp .....	.....	
Low-sodium chicken stock, non-MSG .....	.....	1 qt .....	.....	2 qt .....	.....	2. Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer. 3. Cook for 3 to 5 minutes, until thickened. Remove from heat.
<b>Fresh mixed vegetables:</b>						<b>Prepare no more than 50 portions per batch.</b>  4. Saute sliced carrots in oil for 4 minutes. Add onions, cook for 1 more minute. Add broccoli and cook for 2 more minutes. Remove to steamtable pan. Keep warm.
*Fresh broccoli, chopped .....	2 lb 13 oz .....	1 gal .....	5 lb 10 oz .....	2 gal .....	.....	
*Fresh carrots, peeled, 1/4" slices .....	2 lb 13 oz .....	2 qt 1 cup .....	5 lb 10 oz .....	1 gal 2 cups .....	.....	
*Onions, diced .....	10 oz .....	2 cups .....	1 lb 4 oz .....	1 qt .....	.....	
<b>OR</b>						
+Frozen mixed Oriental vegetables .....	6 lb 4 oz .....	1 gal 3 qt .....	12 lb 8 oz .....	3 gal 2 qt .....	.....	
Vegetable oil .....	.....	1/4 cup .....	.....	1/2 cup .....	.....	

For example, if you complete the pre-preparation work for the Baked Whole Wheat Doughnut recipe *the day before it is to be served*, you'll get a better quality product in *less* time. This is stated in Step 4 of the directions.

**We encourage you to read over the directions provided for each of the recipes carefully *before* you begin production. Use them as you would a road map before starting out on a trip, and keep in mind the following:**

In order to obtain the maximum possible quality and nutritional value from each recipe, all of the procedures outlined in this section of the recipe must be followed *precisely*.

For example, when you read the recipe for Chicken Stir-Fry, you will see in Step 4:

*Prepare no more than 50 portions per batch.*

This is important because if you prepare more than 50 portions (50 servings) per batch, you will be holding the product too long. It will lose its crispness, color, and nutritional value.

The recipe format also includes a variety of other useful information, such as:

- portion size
- the contribution of each serving to child care meal pattern requirements
- yield for 25 and 50 servings
- variations
- marketing guide for selected items
- nutrients per serving

You will find this information on the last page of each recipe. Most recipes are two pages long, however, some are three or four.

**Again using the Chicken Stir-Fry example, let's first look at portion size, contribution to meal pattern requirements, and yield. This information is given under the headings "Serving" and "Yield," as shown in the following highlighted bands.**

## ■ Serving

The portion size and the suggested portioning tools are listed here.

**SERVING: 1 cup (2 No. 8 scoops) provides  
2 oz of meat and  $\frac{5}{8}$  cup of vegetable**

## ■ Contribution to child care meal pattern requirements

This section of the recipe format provides information on the specific contribution of each serving toward meal pattern requirements.

Looking at our sample recipe, a 1-cup portion (2 No. 8 scoops) of Chicken Stir-Fry contributes 2 ounces of *cooked, lean meat* and  $\frac{5}{8}$  cup of *vegetable*. Another recipe might show that 1 portion contributes the equivalent of 1 slice of bread.

## ■ Yield

The total recipe yield for both 25 and 50 servings is stated in weight (pounds, ounces). For some recipes, the total yield is also stated by volume (gallons, cups).

**YIELD: 25 servings: 11 lb 10 oz  
50 servings: 23 lb 4 oz**

## ■ Variations

Some of the recipes in the collection include instructions for a variation (or variations) of the basic recipe, and others do not. In our Chicken Stir-Fry example below, two variations are given.

If a recipe has a variation, follow all of the standard directions in the basic recipe, changing only those specified in the variation instructions.

All of the variations have been tested and standardized using the same procedures outlined in the basic recipe. As a result, you can be sure of product quality and yield.

However, it's important to remember that the meal pattern contribution and the nutrient analysis apply to the *basic recipe only*.

### Variations:

#### a. Beef Stir-Fry

**25 servings:** Follow Steps 1 through 4. In Step 5, use 5 lb 2 oz of boneless beef top round, cut in 1/2" cubes. Saute beef cubes for 2 to 3 minutes, until no signs of pink remain.

**50 servings:** Follow Steps 1 through 4. In Step 5, use 10 lb 4 oz of boneless beef top round, cut in 1/2" cubes. Saute beef cubes for 2 to 3 minutes, until no signs of pink remain.

#### b. Pork Stir-Fry

**25 servings:** Follow Steps 1 through 4. In Step 5, use 5 lb 12 oz of boneless pork shoulder or loin, cut in 1/2" cubes. Saute pork cubes for 3 to 5 minutes, until no signs of pink remain.

**50 servings:** Follow Steps 1 through 4. In Step 5, use 11 lb 9 oz of boneless pork shoulder or loin, cut in 1/2" cubes. Saute pork cubes for 3 to 5 minutes, until no signs of pink remain.

## ■ Marketing Guide for Selected Items

The Marketing Guide for Selected Items provides special purchasing information on foods that will sustain trimming loss during pre-production. These foods are marked with an asterisk (\*) in the ingredients column of the recipe format.

In the Chicken Stir-Fry example below, you'll see information given for three ingredients. Turning back to page 12, you'll see each of these has an asterisk preceding it.

### What you need to know:

For items marked with an asterisk, the quantity listed under "Weight" and "Measure" in the recipe is the EP (Edible Portion). This is the quantity required for production and therefore does not account for trimming loss.

The Marketing Guide shows the AP (As Purchased) quantity required when ordering. In our example, 6 pounds 15 ounces of broccoli must be *purchased* (AP) in order to yield 5 pounds 10 ounces (EP), the amount required to produce 50 portions of Chicken Stir-Fry.

### Marketing Guide for Selected Items

Food as Purchased	For 25-Serving Recipe	For 50-Serving Recipe	For ___-Serving Recipe
Broccoli .....	3 lb 8 oz .....	6 lb 15 oz ....	.....
Carrots .....	4 lb .....	8 lb 1 oz .....	.....
Onions .....	12 oz .....	1 lb 7 oz .....	.....

## ■ Nutrients Per Serving

As you can see in the **Chicken Stir-Fry** example below, this section of the recipe format provides information on 12 nutrients.

The nutrients shown on each recipe are:

calories	vitamin A
protein	vitamin C
carbohydrate	iron
total fat	calcium
saturated fat	sodium
cholesterol	dietary fiber

Three nutrients – fat, saturated fat, and iron – have been calculated to the tenth of a unit. All others have been rounded to the nearest whole unit. When the level of one of these nutrients is .4 or less, it is shown as 0.

All of the recipes in this collection were analyzed for their nutritive value. For a more detailed explanation of the nutrient analysis, see page 23 of this manual.

For information on the steps taken to reduce the amount of fat in these new recipes, see page 25.

### Nutrients Per Serving

Calories	208	Saturated Fat	1.4 g	Iron	1.5 mg
Protein	22 g	Cholesterol	47 mg	Calcium	51 mg
Carbohydrate	12 g	Vitamin A	1355 RE/13640 IU	Sodium	251 mg
Total Fat	8.1 g	Vitamin C	46 mg	Dietary Fiber	3 g



## ■ Special Tips

Some of the recipes include Special Tips. On the Chicken Stir-Fry, for example, you'll find the following:

*Special Tips:*

- 1) For an authentic Oriental flavor, substitute 2 Tbsp of sesame oil for 2 Tbsp of vegetable oil to saute the chicken, for each 25 servings.
- 2) Fresh vegetable mixes can be varied to include combinations of bean sprouts, broccoli, cabbage, celery, Chinese pea pods, onions, peppers, and water chestnuts.

Here's another example, this one from the recipe for Cheese Ribbon Sandwich.

*Special Tip:*

- 1) Attractive garnishes include unpeeled apple slices, grapes, or carrot chips.

**As you can see from these examples, the Special Tips offer information that can help you in a variety of ways. Some, like the first Special Tip in the Chicken Stir-Fry, offer advice on increasing the authenticity of the recipe. Others may:**

- offer ways to make production easier
- suggest optimal methods for storage
- provide alternative serving suggestions
- suggest appropriate garnishes

# Adjusting Recipe Yields

Each recipe lists the quantities you will need to produce 25 and 50 servings. However, to meet your specific needs, you may need to adjust the number of servings. To help you do this, the recipe format includes a column entitled “For \_\_\_\_ Servings.” This column is highlighted in the example below.

<b>Chicken Stir-Fry</b>						
Meat • Vegetable				Main Dishes D-18		
Ingredients	25 Servings		50 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Low-sodium soy sauce .....	.....	1/2 cup .....	.....	1 cup .....	.....	1. Dissolve cornstarch in soy sauce. Add spices.
Cornstarch .....	.....	1/4 cup 3 Tbsp .....	4 oz .....	3/4 cup 2 Tbsp .....	.....	
Ground ginger .....	.....	1/4 tsp .....	.....	1/2 tsp .....	.....	
Granulated garlic .....	.....	1 Tbsp 1 1/2 tsp .....	.....	3 Tbsp .....	.....	
White pepper .....	.....	1 tsp .....	.....	2 tsp .....	.....	
Low-sodium chicken stock, non-MSG .....	.....	1 qt .....	.....	2 qt .....	.....	2. Heat chicken stock to a boil and slowly stir in cornstarch mixture. Return to a simmer. 3. Cook for 3 to 5 minutes, until thickened. Remove from heat.
<b>Fresh mixed vegetables:</b>						<b>Prepare no more than 50 portions per batch.</b>  4. Saute sliced carrots in oil for 4 minutes. Add onions, cook for 1 more minute. Add broccoli and cook for 2 more minutes. Remove to steamtable pan. Keep warm.
*Fresh broccoli, chopped .....	2 lb 13 oz .....	1 gal .....	5 lb 10 oz .....	2 gal .....	.....	
*Fresh carrots, peeled, 1/4" slices .....	2 lb 13 oz .....	2 qt 1 cup .....	5 lb 10 oz .....	1 gal 2 cups .....	.....	
*Onions, diced .....	10 oz .....	2 cups .....	1 lb 4 oz .....	1 qt .....	.....	
OR						
+Frozen mixed Oriental vegetables .....	6 lb 4 oz .....	1 gal 3 qt .....	12 lb 8 oz .....	3 gal 2 qt .....	.....	
Vegetable oil .....	.....	1/4 cup .....	.....	1/2 cup .....	.....	

## How will you use this column?

Using a worksheet similar to the one on page 22, you'll first determine the new quantities you will need. Then you'll write in the new amounts in the spaces provided in the “For \_\_\_\_ Servings” column.

## Let's convert an actual recipe from the new collection.

We'll begin by describing the proper method to use. Then we'll go through each step in two examples, using the recipe for Beef and Spaghetti Casserole. In one example, we'll *reduce* the recipe yield. In the other, we'll *increase* it.

■ To adjust the yield of a USDA standardized recipe, use the following method:

**Step 1: Determine the total yield of the original recipe.**

To do this, multiply the original number of portions by the original portion size.

$$\frac{\text{original number of portions}}{\text{original number of portions}} \times \frac{\text{original portion size}}{\text{original portion size}} = \frac{\text{original yield}}{\text{original yield}}$$

**Step 2: Determine the total new yield.** Multiply the total number of portions you want by the desired portion size.

$$\frac{\text{desired number of portions}}{\text{desired number of portions}} \times \frac{\text{desired portion size}}{\text{desired portion size}} = \frac{\text{total new yield}}{\text{total new yield}}$$

**Step 3: Determine the “multiplying factor.”** Divide the total new yield by the original yield.

$$\frac{\text{new yield}}{\text{new yield}} \div \frac{\text{original yield}}{\text{original yield}} = \frac{\text{multiplying factor}}{\text{multiplying factor}}$$

**Step 4: Determine the new quantity of each ingredient.** Multiply each ingredient by the multiplying factor.

$$\frac{\text{multiplying factor}}{\text{multiplying factor}} \times \frac{\text{original quantity (of each ingredient)}}{\text{original quantity (of each ingredient)}} = \frac{\text{new quantity}}{\text{new quantity}}$$

Place the new quantity for each ingredient in the appropriate space in the “For \_\_\_\_\_ Servings” column.

■ Now let's convert a recipe from the new collection in these two examples:

**Example 1: Reducing a Standardized Recipe**

Using the recipe for Beef and Spaghetti Casserole, we're going to *reduce* the yield from 25 to 15 servings. The individual portion size will remain 4 ounces.

In the following calculation, we use water as a sample ingredient. The original recipe calls for 1 qt  $\frac{1}{2}$  cup of water (36 oz) for 25 servings.

**1. What is the total yield of the original recipe?**

$$\frac{25}{\text{original number of portions}} \times \frac{4 \text{ oz}}{\text{original portion size}} = \frac{100 \text{ oz}}{\text{original yield}}$$

**2. What is the total new yield?**

$$\frac{15}{\text{desired number of portions}} \times \frac{4 \text{ oz}}{\text{desired portion size}} = \frac{60 \text{ oz}}{\text{total new yield}}$$

**3. What is the multiplying factor?**

$$\frac{60 \text{ oz}}{\text{total new yield}} \div \frac{100 \text{ oz}}{\text{original yield}} = \frac{0.60}{\text{multiplying factor}}$$

**4. What is the quantity of water needed for 15 servings?**

$$\frac{0.60}{\text{multiplying factor}} \times \frac{36 \text{ oz (1 qt } \frac{1}{2} \text{ cup)}}{\text{original quantity}} = \frac{21.6 \text{ oz (2} \frac{2}{3} \text{ cups)}}{\text{new quantity}}$$

Place 21.6 oz ( $2\frac{2}{3}$  cups) on the line opposite water in the "For \_\_\_\_\_ Servings" column.

**Example 2: Increasing a Standardized Recipe**

Now let's *increase* the recipe yield from 25 to 60 servings. Portion size will remain 4 ounces. And we'll once again use water as a sample ingredient.

**1. What is the total yield of the original recipe?**

$$\frac{25}{\text{original number of portions}} \times \frac{4 \text{ oz}}{\text{original portion size}} = \frac{100 \text{ oz}}{\text{original yield}}$$

**2. What is the total new yield?**

$$\frac{60}{\text{desired number of portions}} \times \frac{4 \text{ oz}}{\text{desired portion size}} = \frac{240 \text{ oz}}{\text{total new yield}}$$

**3. What is the multiplying factor?**

$$\frac{240 \text{ oz}}{\text{total new yield}} \div \frac{100 \text{ oz}}{\text{original yield}} = \frac{2.4}{\text{multiplying factor}}$$

**4. What is the quantity of water needed for 60 servings?**

$$\frac{2.4}{\text{multiplying factor}} \times \frac{36 \text{ oz (1 qt } \frac{1}{2} \text{ cup)}}{\text{original quantity}} = \frac{86.4 \text{ oz (2 qts } \frac{2}{3} \text{ cups)}}{\text{new quantity}}$$

Place 86.4 oz (2 qts 2<sup>2</sup>/<sub>3</sub>) cups on the line opposite water in the “For \_\_\_\_\_ Servings” column.

On page 22, you'll find a sample filled-in conversion sheet, increasing number of portions from 25 to 60. On page 31, you'll find a blank recipe conversion sheet to use in converting other USDA recipes.

## RECIPE CONVERSION WORKSHEET

Recipe Title: <u>Beef and Spaghetti Casserole</u>		Multiplying Factor		<u>2.4</u>			
Number of Portions (Old Yield)	<u>25</u>	Number of Portions (New Yield)	<u>60</u>				
Ounces/Portion (Old Yield)	<u>4</u>	Ounces/Portions (New Yield)	<u>4</u>				
Total Recipe Yield (oz)	<u>100</u>	Total New Yield (oz)	<u>240</u>				
Ingredient	Old Quantity (from recipe)	Old Quantity (in workable form)	Times	Multiplying Factor	Equals	New Quantity	New Quantity (to write on recipe)
Ground beef	3 lb 4 oz	52 oz	×	2.4	=	124.8 oz	7 lb 8 oz
Onions, minced	6 oz	6 oz	×	2.4	=	14.4 oz	14 oz
Tomato paste	1 lb 2 oz	18 oz	×	2.4	=	43.2 oz	2 lb 11oz
Water	1 qt ½ cup	36 oz	×	2.4	=	86.4 oz	2 qts 2 <sup>2</sup> / <sub>3</sub> cups
Sugar	1 Tbsp 1 tsp	-	×	2.4	=	9.6 tsp	3 Tbsp ½ tsp
Dry basil leaves	¾ tsp	-	×	2.4	=	1.8 tsp	1¾ tsp
Dry oregano leaves	¾ tsp	-	×	2.4	=	1.8 tsp	1¾ tsp
Salt	¾ tsp	-	×	2.4	=	1.8 tsp	1¾ tsp
Garlic powder	2 tsp	-	×	2.4	=	4.8 tsp	1¾ tsp
Black pepper	¾ tsp	-	×	2.4	=	1.8 tsp	1¾ tsp
Spaghetti broken	13 oz	13 oz	×	2.4	=	31.2 oz	1 lb 15 oz

### ■ A note about working with non-standardized recipes

As we've already seen, the total yield of each of the recipes in this packet has already been calculated and is indicated on the recipe card. However, there may be times when you want to use this same method to adjust the yield of a non-standardized recipe. In these instances, you will need to do extra calculations.

For example, in working with non-standardized recipes, it's a good idea to confirm the total yield of the recipe by adding the quantities of all ingredients used. In addition, you may need to convert all of the quantities to ounces before you can calculate the total yield. For your convenience, this training manual includes a chart with basic units of measure and their equivalencies on page 28.

# More Information on the Nutrition Facts

Thanks to the nutrition facts on each recipe, you can see at a glance what an individual serving provides in terms of the following 12 nutrients:

calories	vitamin A
protein	vitamin C
carbohydrate	iron
total fat	calcium
saturated fat	sodium
cholesterol	dietary fiber

This information can help you plan balanced, nutritious meals. For example, if you decide to serve Chicken Stir-Fry:


You may wish to select an item higher in iron to serve as a second choice since one serving of the Stir-Fry contains only 1.5 mg of iron.

And, since the vitamin A content of the Chicken Stir-Fry is high, you may decide to offer a dessert that's high in another nutrient.

**The nutrient analysis was done by computer, using the Agricultural Research Service's nutrient analysis software and the "USDA Nutrient Database for Standard Reference."**

Here's some additional information on the nutrient analysis that may be helpful as you work with the recipes:

- Each recipe was analyzed for its nutritive value using *primary ingredients only*. Alternative and optional ingredients were not included.
- The type and quantity of each primary ingredient was entered into the nutrient analysis software program based on the *market form* (as purchased) given in the recipe – for example, fresh, frozen, or canned.
- Adjustments for yield, nutrient retention, and moisture/fat changes were also calculated. As a result, the final nutrient analysis of the recipe reflects the final "cooked or prepared" product.



**To illustrate this process, let's look at how the nutrient analysis was determined for the Chicken Stir-Fry recipe, using carrots as an example.**

Since the recipe calls for “fresh carrots” as a primary ingredient, the food code selected from the “USDA Nutrient Database for Standard Reference” – and entered into the computer – was “Carrots, raw.”

The quantity for “fresh carrots, peeled” (as stated on the recipe card) was also entered.

Next, a nutrient retention factor for “stir-fried vegetable” (based on Agricultural Research Service data) was entered to reflect nutrient changes during the cooking process.

Finally, any moisture and/or fat loss (or gain) that would occur during cooking was entered to calculate the final recipe weight and nutrient analysis.



# The New Recipes Reduce Fat Without Losing Flavor

As you work with these recipes, you'll find that they yield reduced levels of fat. This is one important way the recipes are consistent with the Dietary Guidelines. The recipes successfully minimize fat without losing flavor because of careful attention given to both:

- ingredients
- and cooking techniques

In developing and testing the recipes, USDA made sure the ingredients were purchased in a lowfat form, provided the overall quality of the product was not affected. For example:

- All raw meat ingredients were specified to be lowfat. The ground beef, for instance, had no more than 24 percent fat. Where possible, it was cooked prior to adding it to the product so the fat could be drained.
- Chicken was either purchased skinless or the skin was removed prior to cooking.
- Mayonnaise and dairy products, such as milk, yogurt, and cheese, were purchased in the lowfat form provided this did not lessen the final quality.

In addition, main entrees were prepared with a minimal amount of fat. For example:

- No products were fried.
- All sauteed items were prepared with a small amount of oil.

Baked goods were also specially prepared. For example:

- The amount of margarine or butter was reduced.
- Whole eggs were sometimes replaced with egg whites.

You can use these same techniques to reduce fat without losing flavor in the recipes you already have.

# Some Tips on Modifying and Standardizing Recipes

**Any recipe can be modified to reflect new tastes or changing needs. The recipes in this collection may give you ideas for modifying the recipes you're already using – by adding or substituting new ingredients, for example, and changing your cooking techniques.**

**As you make changes, it's important to modify first, then standardize.**

Standardized recipes have many advantages. A standardized recipe is one that has been tried, adapted, and retried several times for use by a given food service operation and has been found to:

- produce the same good results and yield every time when the exact procedures are used with the same type of equipment and the same quantity and quality of ingredients.

Using a standardized recipe ensures that:

- the same amount of product is produced each time
- the same portion size is provided each time

Menu planning can be more consistent because:

- there is a predictable yield
- costs are easier to control
- inventory is easier to control

In addition, when the same good results can be produced time after time:

- food preparers have more confidence in what they are doing and need less supervision
- and managers can be sure the meal pattern contribution of a recipe will be accurate as long as ingredients and preparation methods remain the same

**When you decide to modify a recipe, start by making 25 portions. In addition:**

- Change *only one ingredient* at a time. Keep other ingredients the same as in the original recipe.
- Record clear descriptions of foods substituted in exact amounts.
- If increasing or decreasing an ingredient, do so in increments of one-fourth to one-half of the amount called for in the original recipe.
- Follow preparation instructions closely and record any changes you may make.
- Do not make further changes or a larger size recipe until the first modification has produced a high-quality product.



**Once you have successfully prepared 25 portions of a recipe you are modifying:**

- Set up taste panels to evaluate the product for appearance, consistency, texture, flavor, and overall acceptability.
- Reproduce at 50 servings before increasing the recipe to a larger number if needed for your meal service.
- Instruct food service personnel about how and why recipes have been modified.

**It's important to also:**

- Weigh the total volume of recipes at 25 and 50 servings and record the weights.
- Weigh each serving and record the weight.

The weight of the total recipe and the weight of each serving are important for meal pattern requirements and nutrient analysis.

# Reference

## Weights and Measures Equivalencies

3 teaspoons	= 1 tablespoon	( $\frac{1}{2}$ fluid ounce)
2 tablespoons	= $\frac{1}{8}$ cup	(1 fluid ounce)
4 tablespoons	= $\frac{1}{4}$ cup	(2 fluid ounces)
$5\frac{1}{3}$ tablespoons	= $\frac{1}{3}$ cup	( $2\frac{2}{3}$ fluid ounces)
8 tablespoons	= $\frac{1}{2}$ cup	(4 fluid ounces)
$10\frac{2}{3}$ tablespoons	= $\frac{2}{3}$ cup	( $5\frac{1}{3}$ fluid ounces)
12 tablespoons	= $\frac{3}{4}$ cup	(6 fluid ounces)
14 tablespoons	= $\frac{7}{8}$ cup	(7 fluid ounces)
16 tablespoons	= 1 cup	(8 fluid ounces)
2 cups	= 1 pint	
2 pints	= 1 quart	
4 quarts	= 1 gallon	
1 gram	= 0.035 ounces	
1 ounce	= 28.35 grams	
16 ounces	= 1 pound	
1 pound	= 454 grams	
1 kilogram	= 2.21 pounds	

## Metric Conversion Table

To change	To	Multiply by
ounces (oz)	grams (g)	28.35
pounds (lb)	kilograms (kg)	0.45
teaspoons (tsp)	milliliters (ml)	5
tablespoons (Tbsp)	milliliters (ml)	15
fluid ounces (fl oz)	milliliters (ml)	30
cups (c)	liters (L)	0.24
pints (pt)	liters (L)	0.47
quarts (qt)	liters (L)	0.95
gallons (gal)	liters (L)	3.8

## Basic Cuts and Shapes

1. *Small dice:*  $\frac{1}{4}$ -inch cube
2. *Medium dice:*  $\frac{1}{2}$ -inch cube
3. *Large dice:* 1-inch cube
4. *Julienne:*  $\frac{1}{4}$ -inch square by 1 to 2 inches long
5. *French fry:*  $\frac{1}{4}$ - to  $\frac{1}{2}$ -inch square by 3 to 4 inches and longer
6. *Mince:* To chop into very fine pieces
7. *Shred:* To cut into thin strips by using a grater or a chef's knife
8. *Chop:* To cut into pieces roughly the same size

# Appendix

## Sample Blank Recipe Conversion Worksheet

RECIPE CONVERSION WORKSHEET							
Recipe Title: _____				Multiplying Factor _____			
Number of Portions (Old Yield) _____			Number of Portions (New Yield) _____				
Ounces/Portion (Old Yield) _____			Ounces/Portions (New Yield) _____				
Total Recipe Yield (oz) _____			Total New Yield (oz) _____				
Ingredient	Old Quantity (from recipe)	Old Quantity (in workable form)	Times	Multiplying Factor	Equals	New Quantity	New Quantity (to write on recipe)
			×		=		
			×		=		
			×		=		
			×		=		
			×		=		
			×		=		
			×		=		
			×		=		
			×		=		
			×		=		

