Cauvery College for Women (Autonomous)

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STANDARDIZATION

WHAT IS STANDARDISATION

A recipe which is tested and gives the same product every time when it is tried under the same circumstances is called a standardized recipe. The United St

ates Department of Agriculture (USDA) defines a standardized recipe as one that "has been tried, adapted, and retried several times for use by a given foodservice operation and has been found to produce the same good results and yield every time in terms of quantity and quality."

COMPONENTS OF A STANDARDIZED RECIPE

A standard recipe whether it is prepared in a commercial food service operation like a hotel or in a non-commercial food service operations like a school, canteen or hostel mess the following components are important. A standardized recipe should have

- Recipe title
- Recipe category
- Ingredients
- Weight/Volume of each ingredient
- Preparation instructions (directions)
- Cooking temperature and time
- Serving size
- Recipe yield
- Equipment and utensils to be used

Apart from the above components a food service operation can identify other possible components like options for an ingredient if it is not available, the nutritive value for one portion, a marketing guide where the ingredients can be purchased, the food safety guidelines and alternative way of preparing the recipe and substitute ingredients which can be used instead of a particular one.

PHASES OF RECIPE STANDARDIZATION

The standardization of recipes has to be conducted in three phases which are

- Recipe verification
- Product evaluation
- Quantity adjustment

After a recipe flows through each phase decisions are made and the recipe is standardized for a food service operation. Once it is standardized the process should not be repeated unless the ingredients or equipment is unavailable

RECIPE VERIFICATION:

In recipe verification a review of the recipe is carried out in detail, how it is prepared and what is the yield

Before a recipe is standardized careful testing and evaluation is important. Taking into considerations the factors deciding a particular menu suitable for the organization the organization needs to identify the recipe source – like family recipes files, cook books, magazines, journals, special recipes from the cooks, commercial food companies and other food service operation can be the sources for the selection.

The recipe should be tried out at smaller level. Before trying it out the recipe should be evaluated on the basis of availability of ingredients, yield, equipment and skills of the employees. When this is done at a smaller level large scale testing will not become expensive. In case the recipes are obtained from home or from magazine they require much more time to standardize because home size recipes are usually small. The recipe verification phase is further categorized into four major processes namely

- Review the recipe
- Prepare the recipe
- Verify the recipe yield and
- Record changes in the recipe.

Under the first process namely reviewing the recipe, all recipes should have a Recipe title- a name of the recipe is an important component and it should imply the description of the recipe precisely, clearly and should be appealing to the customers.

Recipe category – The recipe category is the classification or grouping of recipes based on meal time. For example, a recipe may be categorized as a breakfast item or a brunch or a dinner recipe. If in case, the organization does not have a category, a recipe category should be created in order to facilitate the organization of the recipes. Using recipe categories makes it easier to find recipes from a collection or from a computer.

List of Ingredients - The ingredients used in the recipe should be mentioned in the common or regional name used in that area. For eg: Oil to be indicated as vegetable oil or refined oil and so on. The name of the product, product form (tender, canned) and any preparation techniques like diced, peeled etc should be listed. If a specific brand of ingredient is used then it should be

mentioned. Reviewing the ingredients will help in purchasing the proper amount and type of ingredients.

The quantity of each ingredient should be listed along with the ingredient and the units have to be mentioned clearly. Taking the above example whether the oil is in cups or in litres or in ml. If the ingredient quantity is not in the preferred unit then conversions have to be made before the recipe is prepared. If the term packet is used then it should be mentioned with the quantity.

Ingredients included in the recipe should be listed either as AP (As Purchased) or EP (Edible Portion) This is done because in case of fruits, vegetables and greens there is a loss in the portion after purchasing and therefore this loss has to be taken into account. In case of raw meats the cooked EP amount is always less than the raw AP quantity because during cooking moisture losses and fat losses may be experienced. On the other hand for rice, dhal and pastas the cooked quantity is more than the directions AP because water is absorbed during the cooking process.

The directions for preparing the recipe should be given step by step in an orderly fashion without confusion. Instructions for combining ingredients should be clearly mentioned. In case of processed foods, food safety guidelines like thawing, storage temperatures, holding temperatures should be included. For example if oil is used whether it should be heated to smoking temperature or added at the final stages should be mentioned.

The cooking temperature and time is needed in a standardized recipe .For example in a baking recipe the preheating temperature of the oven, the temperature and time needed for cooking should be given. The final internal temperature should be mentioned for the product so that the degree of doneness can be known.

The amount of a single portion in volume and/or weight for example two biscuit or one piece of cake and so on should be indicated. Whether the serving size is appropriate for the age group to be served has to be reviewed. For example if the recipe is for children in a school food service then an adult serving should not be given

The next component is recipe yield and it refers to the amount of product that will be obtained after preparing a recipe. The cooking and serving minor and major equipments to be used in preparing and serving the recipe is an essential component. Sometimes different pieces of equipment can be used to give the same outcome so the exact piece of equipment to be used for preparation and cooking the product should be clearly decided.

After the review of the recipe is carefully done, the recipe can be prepared. Throughout the process of the recipe preparation careful notes or any variation should be recorded. Verification of the recipe yield should be carried out after the recipe preparation is completed.

The total final product divided by the number of servings gives the weight of a serving. For example if the

Final product (5000 gms) = Weight of a serving(200 gms)

Number of servings (25)

Any changes or concerns should be recorded during the verification phase.

PRODUCT EVALUATION:

In this second phase the acceptability of the recipe can be decided and it will give information whether or not a recipe should be improved. The evaluation team should include the manager the food and beverage staff and customers. Two types of evaluation can be done which is

i) Informal evaluation and
ii) Formal evaluation

In informal type of evaluation the product is prepared for the first time and an assessment is made whether the product is acceptable or not. At this stage whether to continue or discontinue the standardization of the recipe is taken. If the product is rated as acceptable the recipe will go through the verification phases and finally if all evaluation criteria is accepted then the recipe may be prepared for the formal evaluation

If the recipe has a good potential of drawing customers to the food service then a formal evaluation is conducted.

The procedure to conduct a formal evaluation includes a group of people who are either food service staff members, students or other customers to evaluate the recipe. An appropriate evaluation form has to be designed. Recipes for evaluation are made in small quantities usually in 25 servings. The testing area for the recipes should be comfortable with drinking water, eating and serving utensils, napkins, evaluation forms and pens or pencils. The testing area should not be near the kitchen so that other strong food aromas do not interfere with the recipe evaluation. Tasting procedure should be explained to the group and the evaluation form should be filled in. Lastly, the results can be tallied and summarized. Scores can be given and based on the scores the recipe can be rated as acceptable or rejected.

QUANTITY ADJUSTMENT:

If a recipe has been evaluated as acceptable but it is not in the desired quantity then the quantity adjustment phase has to be followed. There are several methods which are carried out to adjust the recipe for enlargement. These are

- Factor Method
- Direct table reading method and
- Percentage method

***Factor method*:**

The most commonly used method for recipe enlargement is the factor method. This method consists of three basic steps mainly

- Decide the factor to be used
- Multiply each ingredient with the factor
- Change quantity into common measurements
- The factor is a numerical value that is used to increase or decrease the quantity of a recipe and is found out as.

$$\frac{\text{Desired yield}}{\text{Current yield}} = \text{Conversion factor}$$

Then every ingredient in the recipe should be multiplied with the factor. Common measurements have to be used and the fractions have to be rounded off to the nearest common measures.

In order to increase or decrease the recipes yield, similar factors should be used. It should be noted that when recipes are increased, the factor will always be greater than 1.0 and when decreasing the recipes, the factor will always less than 1.0. The total weight of the enlarged recipes can be checked by comparing it with the total weight of the original recipes. The total weight of the original recipes multiplied by the factor should result in the total weight of the new recipe, if not, the calculation should be carefully rechecked for errors.

***Direct table reading method*:**

The direct reading measurement tables can be used as a ready reckoner and recipes which has to be adjusted in quantities is listed in this. The main advantage of this table method is that it is simple, quick to use and does not require any mathemathical calculations. As you see in this slide for example, the weight and volume of ingredients for 25, 50, 100 portions can be maintained and ingredients quantity can be directly taken from the table. Supposing if the recipe has to be

adjusted for 125 portions the weight for 100 portion plus the weight indicated for 25 portions can be taken.

Percentage method

In this method the ingredients measurement is converted to weights and the percentage of each ingredient in relation to the total weight of the recipe is calculated. For example, let us take the making of coffee as an example.

In the preparation of coffee for 5 portions it is seen that 250ml is required and the percent for the ingredient namely milk is 53 percent of the total weight. This percentage is calculate by the formula

Individual ingredient weight (250) × 100 = Percentage of each ingredient (53)

Total Weight (475)

The ratio of all the ingredients is converted into percentages. Multiply each ingredient percentage number by the total number of portions needed for example 25 as you see above to get the exact amount of each ingredient needed. After the percentages are established any number of servings can be calculated and the ratio of ingredients to the total will be the same. These three methods are manually done and recorded but the manual ways of adjusting recipes is time consuming and complex. As computers are in vogue nowadays many software packages are available and are designed to meet the demands of recipe adjustment, nutrient analysis, food production and reports.

BENEFITS OF STANDRADISED RECIPES:

Consistent Food Quality

The use of standardized recipes ensures that menu items will be consistent in quality each time they are prepared and served.

Predictable yield

The planned number of servings will be produced by using standardized recipes. This can help to reduce the amount of leftover food if there has been overproduction, and also will help to prevent shortages of servings on the line. A predictable yield is especially important when food is transported from a production kitchen to other serving sites.

Customer Statisfaction

Standardized recipes contain every detail of ingredient, quantity, preparation and presentation and result in increased customer satisfaction.

Food cost control

Standardized recipes provide consistent and accurate information for food cost control because the same ingredients and quantities of ingredients per serving are used each time recipe is produced.

Efficient purchasing procedures

Purchasing is more efficient because the quantity of food needed for production is easily calculated from the information on each standardized recipe.

Inventory control

The use of standardized recipes provides predictable information on the quantity of food inventory that will be used each time the recipe is produced.

Labour cost control

Written standardized procedures in the recipe make efficient use of labor time and allow for planned scheduling of foodservice personnel for the work day. Training costs are reduced because new employees are provided specific instructions for preparation in each recipe.

Increased employee confidence

Employees feel more satisfied and confident in their jobs because standardized recipes eliminate guesswork, decrease the chances of producing poor food products and prevent shortages of servings during meal service.

Reduced record keeping

A collection of standardized recipes for menu items will reduce the amount of information required on daily food production record. Standardized recipes will include the ingredients and amount of food used for a menu item. The food production record will only need to reference the recipe, number of planned servings and leftover amounts.