Meal Preparation Documentation

CH.4

Your students see a beautiful serving line with consistently appealing foods. They do not know that behind the scenes, recordkeeping is a critical part of your successful school nutrition operation. Documentation helps you plan from day to day, communicates your plans to staff, and ensures quality control and customer satisfaction. Records also provide a valuable written history for future reference. They help you spot trends, evaluate what works best with your customers, forecast demand, and decide what changes need to be made. Written procedures and daily monitoring logs make food safety second nature to staff. In addition, during an Administrative Review (AR), your records will be ready for review.

In this chapter, you will learn about:

- Production records:
  - Why they are a valuable tool to your school nutrition program
  - Role of production records in the AR
  - Required information on all production records
  - Two-step process for completing a production record
- Standardized recipes:
  - Why they are vital in school nutrition programs
  - Role of standardized recipes in the AR
  - Required information on all standardized recipes
  - Three phases to develop standardized recipes
- Hazard Analysis and Critical Control Point (HACCP) -based food safety program:
  - Food safety standard operating procedures (SOPs)
  - Staff training and Active Managerial Control (AMC)
  - Process Approach to HACCP.

INTRODUCTION

In Chapters 2 and 3, you learned steps to create nutritious meals. Your menus meet meal component and serving amount requirements, and dietary specifications for each grade group's meal pattern. Your next step is to develop written plans and document meal production and service. Maintaining production records and standardized recipes are critical to your school nutrition program's success. Written food safety SOPs give your staff guides to follow for daily work habits while preparing and serving foods. These SOPs include HACCP-based control points and critical limits to reduce the risk of foodborne illnesses.

Production records are a communication tool for everyone involved with school meals, from menu development to production and service. Federal guidelines require that all schools participating in the school nutrition programs keep food production records for the meals they produce. These records demonstrate how the meals provide the required meal components and dietary specifications and help you plan day to day.

Standardized recipes are companion tools to your production records. Recipes provide the production staff with everything they need to know to produce wholesome, delicious food for the school nutrition program. Because the recipes have been tested, the result is known and can be duplicated over and over. Standardized recipes ensure quality and nutritional consistency. They are also useful in procurement as well as inventory and labor management. Together, production records and standardized recipes confirm that menus meet the National School Lunch Program (NSLP) and School Breakfast Program (SBP) requirements for reimbursable meals.

Providing your staff with well-designed production records and standardized recipes strengthens your culture of food safety. Production records and standardized recipes are supported by food safety SOPs that direct how your team routinely prepares, holds, serves, and stores food. Your HACCP-based program guides all food production activities and reduces the risk of a foodborne illness.

In this chapter, you will see how production records are a communication tool and a historical record. Standardized recipes convey detailed production steps. HACCP-based written SOPs guide all steps of production and service; assuring safe food practices are followed. Upon completion of this chapter, you will understand the value of these tools.

PRODUCTION RECORDS

Maintaining production records is an important responsibility of your school nutrition program. You must document that meals served in NSLP and SBP are reimbursable meals. Your school nutrition team shares this responsibility with you through completing the production record.

Production records vary in format, but any successful record achieves two things. First, *it gives the staff information*: what foods and recipes to use, what quantities to prepare, and what amounts to portion. Second, *it enables staff to document information*, such as actual quantities prepared and total meals (and a la carte items) served.

Production records provide historical information that you may use to forecast trends, identify student preferences, and plan future menus. Production records are reviewed during the AR. They help verify that your meal service meets the NSLP and SBP requirements for reimbursable meals.

Reviewers will be looking for specific information on your completed production records. The Anatomy of a Production Record shows a sample completed production record. Refer to this information as you read the next section about the required aspects of a production record.

Production records provide historical information that you may use to forecast trends, identify student preferences, and plan future menus. Production records are reviewed during the administrative review. They help verify that your meal service meets the NSLP and SBP requirements for reimbursable meals.

Production Records and Standardized Recipes During the Administrative Review

The State agency (SA) must evaluate production records to ensure the following:

- Records include all information necessary to support the claiming of reimbursable meals and any additional SA requirements (i.e., all menu items are listed and all required meal components are offered);
- Records are used for proper planning (e.g., evaluate for consumption and leftovers);
- Records document food prepared is creditable for the total number of reimbursable meals offered and served;
- Records document a la carte, adult, and/or other nonreimbursable meals, including number of portions for each of these food items;
- Records document that fluid milk, vegetable subgroup, and whole grain-rich requirements are met;
- Records document weekly quantity requirements for fluid milk, vegetables, fruits, grains, and meats/meat alternates; and
- Records align with standardized recipes (e.g., if chicken salad sandwich is on the menu but mayonnaise is not listed on the production records, the SA may examine standardized recipes for additional information).

Excerpted from U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Programs, Administrative Review Manual.

Daily Menu Production Record – Food-Based Menu Planning

SAMPLE

1 Name of school/site: Harvey Elementary School
2 Grade Group: K- 5
3 Date: January 14, 2016
4 Menu: Grilled cheese sandwich or Chicken nuggets & Rice pilaf, Broccoli, Cherry tomatoes, Celery sticks, Fruit cocktail, Orange wedges, Milk: assorted fat-free & 1%

5 ☐ Breakfast ☒ Lunch ☒ OVS ☐ Pre-plated (served)

Reimbursable meals
6 Number of student meals planned (projected): 50
7 Number of student meals offered (prepared): 45
8 Number of student meals selected (served): 45

Nonreimbursable Meals
9 Number of meals planned (projected): 5
10 Number of meals offered (prepared): 5
11 Number of meals selected (served): 4

R = Reimbursable NR = Nonreimbursable T = Total

12 Menu/food items 14	Recipe ID/product ID	15 Portion Size	Component contributions per portion size: 16 Meats/meat alternates	17 Grains	18 Fruits	19 Vegetables	20 Milk	21 Planned (projected) Servings R	NR	T	22 Planned (projected) quantity of food (in purchase units)	23 Actual number servings offered (prepared) R	NR	T	24 Actual number servings selected (served) R	NR	T	25 Substitutions, leftovers, and notes
Grilled cheese sandwich	R# 32	1 ea	2 oz eq	2 oz eq WGR				24		24	48 sl WG bread 3 lbs cheese	20		20	20		20	No leftovers; all children were offered both choices
XYZ Chicken Nuggets w/ WG, 3.97 oz = 2 oz M/MA, 1 oz WG CN #123456	P# 4203	#6 scoop (6 ea)	2 oz eq	1 oz eq WGR				30	5	35	5.6 lbs	30	5	35	28	4	32	3 servings leftover, discarded
Brown rice pilaf, USDA recipe	R# B22	#8 scoop		1 oz eq WGR				32	5	37	1 gallon	32	5	37	31	3	34	1 ½ cups leftover, discarded
Steamed broccoli florets (RTU), dark green vegetable	R# 15	2 fl oz spoodle				¼ c		50	5	55	1.75 lbs	50	5	55	49	4	53	0.5 cup leftover; chilled and refrigerated for use in soup tomorrow
Cherry tomato (3 ea), red/orange vegetable,	R# 18	¼ c				¼ c		30		30	2.5 lbs	30		30	24		24	1½ cups cherry tomatoes & 1 cup celery leftover; bagged & refrigerated for use in soup tomorrow
Celery sticks (3 ea, RTU), other vegetable		¼ c				¼ c		30		30	2.25 lbs	30		30	26		26	
~~Fruit cocktail in light syrup,~~ drained, USDA Foods *Diced peaches, drained*	R# 3	4 fl oz spoodle			½ c			35	3	38	2 #10 cans	35	3	38	25	3	28	Substituted peaches. 5 cups leftover; refrigerated for use in breakfast tomorrow
Orange wedges (138 count)	R# 5	4 fl oz spoodle			½ c			15	3	18	4.5 lbs	25	2	27	35	2	37	No leftovers; made 10 more servings, 3 more lbs used
Extra: Ranch dressing 1/2 oz packets	P# 1514	1 ea						54		54	54 ea	50		50	45		45	5 leftover, returned to inventory
13 Milk by type and flavor:	Item#																	No leftovers
fat-free (unflavored):	501	1 cup					1 cup	5		5	5	5		5	5		5	
fat-free (chocolate):	502	1 cup					1 cup	30		30	30	28		28	28		28	
1% unflavored:	503	1 cup					1 cup	10		10	10	10		10	10		10	

Details provided on product CN label

RTU: ready-to-use, cleaned, trimmed florets

Projected quantity based on FBG yield for drained fruit, 2 #10 cans

Projected quantity based on FBG yield for 138 count oranges, 4.5 lbs for 15 ½ c portions

26 *Ms. Manager* verifier signature — *1/14/16* date

Key Items to Include on Production Records

You may use any production record format you wish as long as it includes certain key items. These items are summarized and then explained in more detail below. Be sure to include *at least* the following:

BASIC INFORMATION

1 Name of school/site

2 Grade group

3 Date

4 Menu

5 Menu type (lunch or breakfast) and OVS or Pre-plated (served)

REIMBURSABLE MEALS

6 Planned (projected) number of student meals; provides an estimate of planned (projected) student meals for the specified grade group

7 Actual number of student meals offered (prepared); provides the total number of student meals offered (prepared) for the specified grade group

8 Actual number of student meals selected (served); provides the total number of student meals selected (served) for the specified grade group

NONREIMBURSABLE MEALS

9 Planned (projected) number of nonreimbursable meals – the number of staff and guests

10 Offered (prepared) number of nonreimbursable meals – the number of staff and guests

11 Actual number of nonreimbursable meals selected (served); provides the total number of nonreimbursable meals selected (served) for the specified school/site

ALL MENU ITEMS LISTED

12 Menu/food Items – all food item choices included on the specified grade group's menu, such as main entrees, vegetable subgroups, fruit, milk, dessert, condiments, and substitutions. For each food item, include product information such as manufacturer item name and code number, USDA Foods information, or specific information to guide preparation

13 Planned (projected), offered (prepared), and selected (served) number of milk by type – fat-free unflavored, fat-free chocolate or other flavors, 1% low-fat unflavored, 1% low-fat chocolate or other flavors

RECIPE/PRODUCT NUMBER

14 Recipe ID/product ID number – standardized recipe number (USDA or your local recipe number) or product ID number

PORTION SIZE

15 Portion size for the specified grade group – specific unit of measure: scoop number, measuring cup amount, each, ladle or spoodle size, etc.

REIMBURSABLE MEAL COMPONENTS PROVIDED BY PORTION SIZE

16 Meats/meat alternates in ounce equivalent (oz eq)

17 Grains in oz eq (WGR indicates whole grain-rich)

18 Fruits – portion offered in volume, (½ cup in sample)

19 Vegetables – portion offered in volume (¼ cup in sample), note that subgroup is identified in column #12

20 Milk – portion offered in volume (1 cup in sample)

MEALS PLANNED (PROJECTED), OFFERED (PREPARED), SELECTED (SERVED) AND LEFTOVER

21 Planned (projected) number of servings to prepare – provided by menu planner using forecasting tools (reimbursable and nonreimbursable combined)

22 Planned (projected) quantity of food to use in purchase units – forecasted from past production, standardized recipes and Food Buying Guide. Adjust on day-of-service, if needed

23 Actual number of servings offered (prepared) – provides total number of servings prepared with any changes from planned (projected) amounts noted, as needed

24 Actual number of servings selected (served) - provides total number of servings selected (served) for each food item on the menu; provides information for forecasting future meal preparation

25 Substitutions and leftovers – any substitutions for the planned menu must be recorded. Record the amount of leftovers of each item and planned use *(examples: chilled and refrigerated for use in future meal, freeze for future use in cycle menu, or discard)*

VERIFIER SIGNATURE AND DATE

26 Person in charge of site reviews, verifies, signs and dates the production record, and files for future reference. Your State agency may require signed production records.

Two-Step Process for Completing Production Records

Production records are completed in two distinct steps. Depending on the size of your district, you, as the menu planner or the site manager, will complete the first step. This first step includes listing preproduction elements needed. The second step is production information added the day of meal service.

Step One: Preproduction Information

You can fill in preproduction information days or weeks in advance. Some of the key items are constant and may be preprinted on the record; software can automate this process. Information noted in the first phase includes:

- Menu type (breakfast or lunch) and pre-plated (served) or OVS
- Meal site
- Date
- Grade group(s)
- Menu items (food items or recipes), including identification numbers
- Planned (projected) quantity of food (in purchase units)
- Portion amounts (serving sizes) and planned (projected) total servings for each grade group, adults and a la carte
- Component contribution for each menu item.

Each item on a production record provides useful information. Let's look at some preproduction elements in more detail:

Grade group(s): Identify the grade group or blended grade group (for example, K-8, K-12). You may use one production record for more than one grade group. However, you need to include the serving size for each grade group, if serving sizes are different.

Name (description) of menu items used: List all food items and the form used (fresh, frozen, canned, etc.). This is the first step in effectively communicating the menu to your staff. Accurately list all food items, including condiments, which are not included as recipe ingredients.

Food item or recipe identification number for each menu item: Indicate the menu's recipes and food products with identification (ID) numbers. Specific ID numbers help distinguish between similar food items or recipes.

Portion amount (portion size, serving size): List portion amounts and include the serving utensil. If used, include the size of the ladle, scoop, or spoodle. Your staff will then know the correct portion amounts of each food item. The planned (projected) and offered (prepared) portion amounts should be the same. Note the offered (prepared) portion amount, if different from the planned (projected) amount. If you adjust portion amounts for different grade groups, list each grade group portion on a separate line. See Appendix 4.B for a handy reference to measuring portions.

Component contributions: Note the corresponding component contribution for the portion amount for each menu item. This handy check helps to verify meal pattern and crediting requirements.

Total planned (projected) servings: Forecast the number of servings needed for each menu item. Projecting the number of servings helps determine how much food to order, how much time to allot for preparation, and which equipment to use. For menus with choices between several different selections or with OVS, rely on past production records to help determine the quantity to prepare. Use these past records to help accurately forecast all menu planning options.

Planned (projected) quantity of food to use in purchase units: Forecast from past production records, standardized recipes, and the Food Buying Guide. Adjust on the day-of-service, if needed.

Step Two: Day-of-Service Production Information

The second step of completing a production record happens on the day-of-service. The staff completes the remaining sections during meal production and service, including:

- Quantity of food in purchase units and actual number of servings offered (prepared), if different from the planned (projected)

- Actual number of reimbursable meals offered (prepared) by grade group, if different from the planned (projected amount)
- Actual number of reimbursable meals selected (served) by grade group
- Actual number of nonreimbursable meals selected (served)
- Total number of servings selected (served)
- Actual number of a la carte items selected (served), if any
- Actual number of full second reimbursable meals selected (served), if any (breakfast only)
- Any substitutions made and total amount and use of leftovers.

The day-of-service information is valuable for future menu planning as well as future production days with the same menu. The offered (prepared) menu counts and number of servings can be used for the weighted nutrient analysis of your menus.

Now let's look at the day of production elements in more detail:

Total quantity of food (in purchase units) and actual number of servings offered (prepared) Site staff must record the quantity of food actually offered (prepared), if different from planned amount. The offered (prepared) amount may be different than the planned (projected) amount for a variety of reasons. For example, a grade level is away from school on a field trip, or significant absences occur due to illness. Make note of this information; it is helpful for future menu planning. Past production information is combined with the servings offered (prepared) and selected (served) to shape future production needs.

Actual meals and items offered (prepared) served: At the end of service, site staff must record the total amount of each food item offered (prepared). Your team also records the total number of reimbursable meals by grade group, as well as the total number of nonreimbursable meals and a la carte items. *Substitutions and leftovers*: During preparation and service, site staff must record any substitutions made to the planned (projected) menu. Careful substitutions are especially important for meeting weekly vegetable subgroup requirements or when crediting vegetables toward the fruits requirement at breakfast. At the end of meal service, site staff must record leftover amounts and indicate whether leftovers will be retained for later use or discarded. Tracking the use of leftovers is important in your food safety program. It also helps identify overproduction, thus aiding in food cost management.

Actual meals and items selected (served): At the end of service, site staff must also record the total amount of each food item selected (served). Your team also records the total number of reimbursable meals by grade group and the total number of nonreimbursable meals and a la carte items sold. For breakfast only, any full second reimbursable meal served to students must be recorded.

You will use the information on actual servings for future menu planning and adjustment. Review planned (projected), offered (prepared), and actual servings selected (served) and note significant trends versus temporary changes due to uncommon events or circumstances that affect participation.

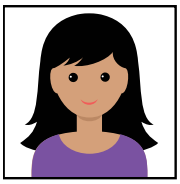
Some records include spaces for recording CCPs, temperatures, employee initials, or other information. Some schools use separate logs for this information. Either way, your staff must document CCPs and limits (time and temperature) in writing.

At the end of the meal service, the site manager reviews the production record, verifies the information is accurate and complete, and signs and files it for future reference. Your operation may use more than one production record per day for a meal. For example, a large high school with five different serving stations may have five production records for the salad bar, build-a-sandwich bar, vegetarian, home cooking, and ethnic food lines. An elementary school production record may list salad bar as a line item and use a separate detailed salad bar production record. Listing all of the items of the salad bar on the general production record may not be practical.

Let's see how four different school menu planners use production records.

Menu Chat

Hi everyone.

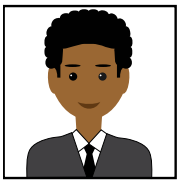


Elena

We are reviewing our production records and trying to figure out the best approach for our schools with two grades groups and fruit and vegetable bars. Do you have an idea to share with us?

Lin

We use a single production record for all grades. Ours is a small district and all the students eat in one cafeteria. A simple approach helps: a single menu with a few choices between fruits and vegetables for everyone and a variety of entrée choices for my high school students. I make sure the planned portion sizes are correct for each grade group.



Tyler

A single production record works in our district, too, even though we have different schools. We have a similar menu at all grades; I fill in the portion size for the specific grade group in each building.

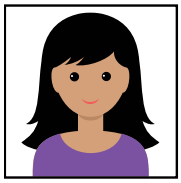
Sandra

We use multiple production records. We have a large volume production record for our central kitchen. Each school kitchen has its own production record. Due to the number of specialty lines and menu options we offer district-wide, we also find a separate log for recording temperatures for critical control points works best for us. We require our staff to initial the temperature measurements and time notations.

Megan

Our production record for both grade groups includes amounts as purchased and edible portion servings for the fresh fruit and vegetable bar. We prepare for the bar at the beginning of the week and label and date items for the expected day of service. But if the sweet potato sticks are really popular on Monday, we pull from Wednesday's supply to ensure we offer enough red/orange vegetable subgroup on Monday. We either prepare additional sweet potatoes for Wednesday or substitute baby carrots for red/orange subgroup. Each day's production record is updated accordingly.

Menu Chat



Elena

THANKS!
You have helped me see how each approach is useful. Now I need to assess which is best for our schools.

The production record relays the steps required to prepare the menu. Your food production team uses the record for guidance during preparation and service. Your staff documents actual preparation and service information throughout the day. All members of your production team should understand the importance and use of production record information. Training your staff to use and properly document information on production records is essential.

Now that you have learned about production records, let's take a look at standardized recipes. Standardized recipes communicate serving size and meal component information. They provide preparation, service, and food safety information to guide your school nutrition staff. You will quickly see how important standardized recipes are to daily meal production.

STANDARDIZED RECIPES

Consistently producing high-quality food that satisfies your customers and meets requirements for reimbursable meals is not an easy task. To do so, you and your team must know the principles of developing and using standardized recipes. A standardized recipe is one that has been tested for use in your kitchen(s). It produces consistent good results and yields every time when using the same procedures, equipment, and quality and quantity of ingredients. You may have a set of standardized recipes at the district level that are further standardized to reflect individual school equipment and other factors.

Schools often use recipes with yields of 50 and 100 servings, or even more. Quantity recipes produce 25 or more servings. You have quantity recipes, but are they standardized? Your quantity recipes become standardized only after adapting them to your school nutrition program.

Advantages of Standardized Recipes

Standardized recipes in your school nutrition program provide many advantages:

1. Reliable Nutrition Content
   - Provide consistent meal component contributions
   - Provide consistent calories, saturated fat, and sodium
2. Food-Safe Practices
   - Provide food-safe preparation steps (avoid cross-contamination and cross-contact)
   - Provide CCPs for time and temperature
3. Product Quality and Quantity Management
   - Provide consistently high-quality food items
   - Yield the same quantity of product each time
   - Indicate multiple serving yields, based on different portion amounts (½-cup portions vs. ¾-cup portions for different grade groups)
4. Reliable Production Forecasting
   - Predict the number of portions from each recipe accurately
   - Eliminate excessive amounts of leftovers or need for substitutions

5. Cost Control
   - Specify exact amounts of ingredients to purchase
   - Manage inventory and storage through predictable ingredient use
6. Positive Expectations
   - Build staff confidence
   - Encourage student participation
   - Build program reputation within broader school community.

Information to Include on Standardized Recipes

Your standardized recipe format needs to include the following:

- Recipe name – descriptive of the recipe
- Recipe ID number – an identification number unique to each recipe
- Recipe category – classification (main dish, grains, vegetables, etc.)
- Recipe yield – amount produced when production is completed (weight and/or volume and number of servings)
- Ingredients – products used
- Ingredient amounts per yield – quantity of all ingredients in weight or volume for each yield (for example, 50 or 100 servings)
- Preparation instructions – directions for preparing the recipe
- Preparation equipment and utensils – pans, steamers, mixer, etc.
- CCPs – time and temperature critical limits for each step: preparing, holding, serving, and storing
- Cooking time and temperature – as required
- Serving size – single portion size weight and/or volume
- Serving utensils – scoops, ladles, spoodles, etc.
- Component contributions per portion amount – fruits, vegetables including subgroups, grains, meats/meat alternates, and fluid milk (always 1 cup unless credited in smoothie recipes).

A standardized recipe format is helpful; consider creating a template. You can model yours on the USDA recipe format or use one from another source.

USDA standardized recipes include two additional features. The first is nutrients per serving, including calories, saturated fat, and sodium. The second is a marketing guide, which provides purchase quantities for ingredients that have a prepreparation loss or gain prior to use in a recipe. More information on the marketing guide can be found in Chapter 5.

USDA Recipes

USDA standardized recipes are excellent additions to your recipe collection. Look for these resources. The *What's Cooking? USDA Mixing Bowl* website is an online recipe library and includes standardized recipes for school meals:

Recipes for Healthy Kids Cookbook for Schools (**https://www.fns.usda.gov/tn/recipes-healthy-kids-cookbook-schools**).

Searchable recipe database (**https://whatscooking.fns.usda.gov/search/quantity/sm_field_usda_standardized_infor/Yes%2C%20this%20recipe%20has%20been%20standardized%20by%20USDA/im_field_audiences/school-foodservice-186**).

Anatomy of a Standardized Recipe

1 Bok Choy Wrappers

Meal Components: Meat-Dark Green Vegetable-Fruit-Grains 2 | Sandwiches 3 | F-11r 4

Ingredients 5	50 Servings 6 Weight 7	Measure	100 servings 6 Weight 7	Measure	Directions 8
Water		1 gal 2 qt		3 gal	1. Boil water.
Brown rice, long-grain, regular, dry	5 lb 9	3 qt ½ cup	10 lb 9	1 gal 2 ¼ qt	2. Place 2 lb 8 oz brown rice in each steam table pan (12" x 20" x 2 ½"). For 50 servings, use 2 pans. For 100 servings, use 4 pans. 10 3. Pour water (3 qt per steam table pan) over brown rice. Stir. Cover pans tightly.
					4. Bake: Conventional oven: 350 °F for 40 minutes Convection oven: 325 °F for 40 minutes 11 5. Remove from oven and let stand covered for 5 minutes.
*Fresh bok choy, sliced ¼"	3 lb 6 oz	1 gal	6 lb 12 oz	2 gal	6. Combine brown rice, bok choy, pineapple, chicken, sweet and sour sauce, and soy sauce. Pour into steam table pans (12" x 20" x 2 ½"). For 50 servings, use 2 pans. For 100 servings, use 4 pans. 10
Canned pineapple tidbits, in 100% juice	6 lb 10 oz	3 qt (1 No. 10 can)	13 lb 4 oz	1 gal 2 qt (2 No. 10 cans)	
Frozen, cooked chicken strips, thawed	6 lb 2 oz	1 gal 2 qt	12 lb 4 oz	3 gal	
Sweet and sour sauce		1 qt 2 cups		3 qt	
Low-sodium soy sauce		2 Tbsp		¼ cup	
					7. Bake: Conventional oven: 350 °F for 30 minutes Convection oven: 350 °F for 20 minutes 11 Critical Control Point: Heat to 165 °F or higher for at least 15 seconds. 8. Critical Control Point: Hold for hot service at 135 °F or higher. 12
*Fresh romaine lettuce, outer leaves, rinsed, dry	5 lb	100 leaves	10 lb	200 leaves	9. Top each romaine lettuce leaf with a 6 fl oz spoodle (¾ cup) of filling. Optional: garnish with diced red peppers. Fold sides of lettuce in toward center; roll up like burrito. Place seam side down. Serve immediately. 13
Two wraps provide 1 oz equivalent meat, ¾ cup dark green vegetable, ¼ cup fruit, and 1 ½ oz equivalent grains. 15 One wrap provides ½ oz equivalent meat, ⅜ cup dark green vegetable, and ¾ oz equivalent grains. 15					10. Serve 2 wraps. 14

1. Recipe Name
2. Food Components
3. Recipe Category
4. Recipe ID Number
5. Ingredients
6. Servings per Recipe
7. Weight and Measure
8. Preparation Instructions
9. Ingredient Amounts
10. Equipment Needed
11. Cooking Time and Temperature
12. CCP (Critical Control Point)
13. Portioning Utensil
14. Serving Information
15. Serving Size and Component Contributions

Additional recipe elements may be required by your State agency (SA). Check before finalizing your recipe format to verify any additional requirements. Your standardized recipes provide information to your SA during the administrative review (AR). The SA will compare recipe yields to production records servings during the AR.

Your school nutrition program relies on standardized recipes. They ensure that FBMP provides quality food portioned correctly for each grade group. Now let's look at how to standardize recipes.

Three Phases of Recipe Standardization

Measuring Success with Standardized Recipes (**http://www.theicn.org**) from the Institute of Child Nutrition (ICN) is an excellent resource. The following information is adapted from this publication.

Standardizing recipes involves three phases: recipe verification, product evaluation, and quantity adjustment. To achieve the final standardized recipe, your team may need to repeat one or more phases. Here is a brief look at each phase:

- Recipe verification – Review and prepare recipe, verify yield, and record changes.
- Product evaluation – Determine product acceptability.
- Quantity adjustment – If necessary, change recipe yield and ingredient quantities.

Determine acceptance standards for each phase of the process. If the recipe meets the acceptance standard, move to the next phase. For recipes that fail to meet established standards, repeat the work before moving forward. Once the recipe meets your goals, the process is complete. No modifications will be required unless there are ingredient or equipment changes. Each of the three phases contributes to the success of a recipe.

Recipe Verification Phase

Verify the recipe by careful review and preparation:

- Note any elements missing from the recipe, such as ingredients, preparation steps, CCPs, etc.
- Check the preparation steps for equipment requirements and note possible substitutions.
- Prepare a small quantity of the recipe, usually 25 servings.
- Keep careful notes during preparation.
- Check ingredient amounts and serving yields.
- Record any changes required.
- Transfer the recipe to your standardized format.

Product Evaluation Phase

The product evaluation phase will assist you in determining the acceptability of the product by your school nutrition team. Evaluation is conducted both informally and formally. The first evaluation is informal and an important step in recipe development. Informal evaluation includes three decision choices:

- Product totally unacceptable
- Product acceptable, but requires modifications and goes back to the verification phase
- Product acceptable and ready to be produced for formal evaluation.

The formal evaluation includes students and other customers. The evaluation should be tailored to the audience – young students, older students, or a mix. As you develop the evaluation, address:

- Acceptable appearance
- Flavor
- Product qualities – hot or cold; moist or dry; hard to chew or bite.

Students may evaluate a product differently than your school nutrition team. The students must like the product for it to become a "winner" in their minds. Remember, the student is your customer, not you and your staff! You can find taste-testing forms and resources at (**https://www.fns.usda.gov/tn/team-nutrition**).

Prepare the recipe for evaluation:

- Establish an area where everyone may view, taste, and evaluate the recipe produced
- Summarize results
- Determine the next step:
  - Accept the recipe as is.
  - Modify the recipe until acceptable.
  - Reject the recipe.

Quantity Adjustment Phase

Once a recipe is accepted, you need to adjust it for quantity production. Adjusting recipes is both an art and a science. The factor method is often used in school nutrition programs during standardization.

Continued on page 151

Engaging Staff, Students, and Community for Menu Success

School District:
Prairie Hills Unified School District 113

Located:
Sabetha, KS

Enrollment:
1,100

Website:
www.usd113.org

Brook Brubeck, school food service director, Prairie Hills School District, spearheaded an increase in school meal participation by involving staff, students, and families in improving school menus. All six schools have student teams that participate in taste tests, help evaluate existing menus, and plan new menus. The students have influenced many positive menu changes while learning about meeting the school meal standards. Ms. Brubeck has also started school nutrition program Facebook and Twitter accounts where she posts menus, menu-related food facts, pictures of food-related district activities, and healthy, easy recipes for at-home family fun. Ms. Brubeck also uses an online survey service for feedback and a chat group where she can discuss the surveys, general ideas, and comments about the program with students. This online forum works very well, because it allows the students to interact with her on their schedules. Virtual meetings allow her to meet with students any time. Ms. Brubeck provides the following suggestion to other directors: "I would suggest to directors who don't know how to set up something like this to work with their tech department, or, even better, go to their technology classes in their schools and ask for help. The students LOVE to teach the adults, and it's a great learning experience for both parties." She says, "The main thing I see happening with these new projects is a renewed enthusiasm about school food, both from parents and students. There is a dialogue happening between our staff and their 'customers' that had been missing for a while. The kids feel empowered to make suggestions, and the cooks are getting out of their kitchens during lunch service and talking to the kids. It's wonderful to see both sides open the lines of communication and share their thoughts!"

Steps To Adjust Recipe Yield

Using the factor method, you can adjust the yield of a standardized recipe for your school nutrition program. Three steps in the process include:

- **Determine the factor to be used**: desired yield ÷ current yield = factor.
- **Multiply each ingredient by the factor**: current measure x factor = new measure.
- **Change amounts into more common measurements**: a new measure may not convert to a useful measure.

Here is an example for increasing a recipe for the first two steps:

- **Determine the factor to be used**: desired yield ÷ current yield = factor

  Example: 250 (desired serving yield) ÷ 100 (current serving yield) = 2.5 (factor).
- **Multiply each ingredient by the factor:** current measure x factor = new measure

  Example: 5 pounds (current measure for 100 servings) x 2.5 (factor) = 12.5 pounds (measure for 250 servings).

Here is an example for decreasing a recipe for the first two steps:

- **Determine the factor to be used:** desired yield ÷ current yield = factor

  Example: 125 (desired serving yield) ÷ 250 (current serving yield) = 0.5 (factor).
- **Multiply each ingredient by the factor:** current measure x factor = new measure

  Example: 5 pounds (current measure for 250 servings) x 0.5 (factor) = 2.5 pounds (measure for 125 servings).

Note: The factor to decrease a recipe is always less than 1; the factor to increase a recipe is always greater than 1.

Then, if necessary, use the third step:

- **Change amounts into more common measurements:** a new measure may not convert to a useful measure.

  Examples:

  A recipe for 50 servings calls for ⅔ cup (0.66 cup) shredded carrots, the amount for 300 servings is 3.96 cups of shredded carrots – convert to 1 quart.

  A recipe for 100 servings calls for 2 cups of diced onions, the amount for 60 servings is 1.2 cups – convert to 1¼ cups of diced onions.

Some ingredients require special attention during recipe standardization. These ingredients do not increase or decrease proportionately:

- Herbs and spices
- Leavening agents – baking powder, soda, and yeast
- Thickening agents – flour, cornstarch, and eggs
- Liquids – water and juice.

The best method to determine the quantities of these specific ingredients is to prepare the recipe.

Menu Chat

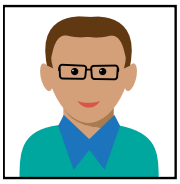
Hello!

Megan

I am preparing a training session on standardized recipes for my staff. Do you have any tips? I am looking for nuggets of wisdom I can include.

Sandra

I learned through experience that I need to double check the crediting of components for all recipes, no matter the source. The calculations might be wrong or there could be a typo in the recipe. I have a second staff member check my work because of these same issues.

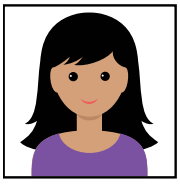


Dylan

I know that even when I cook for my family at home that many recipes I find on websites may not have been tested. I often find ingredients, amounts of ingredients, or preparation steps are missing. I figure that this can happen with a quantity recipe too. We always review the recipes carefully before we do our first preparation. It saves us time and money in the long run.

Lin

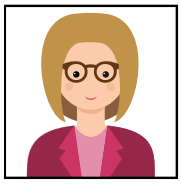
Our equipment varies by kitchen, so we have to standardize the recipe to each site. My workers that float between sites know how important it is to follow the recipe that is standardized for each kitchen's equipment. Differences in equipment affect recipe volume and other preparation factors. The standardized recipes help ensure a consistent product from all sites.



Elena

We have a recipe for everything on the menu, even single items such as our orange wedges and chicken nuggets. The recipe provides instructions for portion information, washing produce, critical control points, and other preparation steps. Because each product we purchase is assigned an identification number and we use that on the recipes and production records, it helps us catch that rare time when the wrong product is delivered to a school. For example, we stock two different bake and serve whole grain-rich breadsticks, 1 oz eq for grades K-8 and 2 oz eq for grades 9-12. The smaller product does not meet the daily minimum serving amount for grains at 9-12, so comparing product ID numbers is important because the product packaging and names are similar. My staff finds this very helpful because we cross train our employees to work in different preparation areas.

Menu Chat



Megan

THANKS!
I knew I could count on your wisdom, thanks for the ideas!

Sample Nonstandardized Recipe

1 Bulgur and Brown Rice Pilaf

Servings: 100 - ½ cup servings 2 **Meal Pattern Contribution:** 1/2 cup provides 1 oz eq grains. 4

Ingredients	Weight	Measure
Vermicelli, fine, enriched, broken in half-inch lengths	2 lb 8 oz	
Onion, diced 5	3 lb 12 oz	2 qt 2 5/8 cups
Garlic, finely chopped	2 1/8 oz	20 cloves
Margarine or butter	1 lb 8 oz	3 cups
Brown rice	2 lb	5 cups
Whole grain bulgur (cracked wheat)	4 lb 10 oz	15 cups
Chicken stock or broth	21 lb 3 oz	2 ½ gal
Marjoram	¼ oz	3 Tbsp 1 tsp

3

Directions

1. Sauté ve 6 lli, onion, and garlic in margarine or butter until lightly browned in a skillet over medium-high heat.
2. Add rice and bulgur and sauté.
3. In a large stock pot combine sa 7 d vermicelli, onion, garlic, rice, and bulgur. Add chicken stock or broth and marjoram. Stir to mix well.
4. Bring to boil, cover and simmer ov 8 w heat for approximately 30-35 minutes or until liquid is absorbed.
   CCP: Heat to 135 °F or higher for at least 15 seconds. 9
   CCP: Hold for hot service at 135 °F or higher
5. Portion with a No. 8 (½ cup) scoop. 10

Source: Whole Grains Council/Sunnyland Mills 11

Nutrition Facts per Serving 12

Calories: 204	Total Fat: 6.15 g	Vitamin A: 466.4 IU	Calcium: 80.24 mg
Protein: 3.94 g	Saturated Fat: 1.06 mg	Vitamin C: 1.50 mg	Sodium: 623 mg
Carbohydrates: 34.66 g	Cholesteral: 0 mg	Iron: 4.45 mg	Dietary Fiber: 4.93 g

Whole Grains *in Child Nutrition Programs*

These recipes have been provided by schools, but have not been tested or standardized by USDA. Schools should standardize the recipes for their own operation.

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1. Recipe name
2. Yield and portion size
3. Weight and measure
4. Food components
5. Ingredients
6. Preparation steps and cooking method
7. Equipment needed
8. Cooking method
9. CCP (Critical Control Point)
10. Serving utensil
11. Source
12. Nutrients per serving
13. Not all recipes are marked as tested/not tested! Always test and standardize recipes to your kitchens.

The recipe for Bulgur and Brown Rice (**see page 150**) looks like a tested, standardized recipe. However, the notation below the nutrition per serving section indicates it has not been standardized. Be aware that few quantity recipes are marked this way, even if the recipe has never actually been tested in large quantity amounts. A printed recipe may have been adjusted from a smaller quantity, but never prepared and verified in the larger volume. As your team completes recipe standardization, you may find modifications necessary to create the quality and quantity required. Always test and standardize recipes before including them in your school nutrition program menus.

Here is an example of why standardizing a recipe such as Bulgur and Brown Rice is necessary. Imagine:

- Your school needs 150 ½-cup servings for grade group K-8 and 75 1-cup servings for grade group 9-12.
- The total yield required is 150 cups (volume of total yield is 9 ⅜ gallons).
- The Bulgur and Brown Rice recipe produces 100 ½-cup servings (volume of recipe yield is 3⅛ gallons).

Without standardization, your team might not produce the correct volume or quality of the Bulgur and Brown Rice recipe. The amount produced may be too little for lunch needs, creating a service line crisis. A standardized recipe that is adjusted to meet volume needs reduces the opportunity for error and improves product consistency. A recipe may have yields divided between two portion amounts: 150 ½-cup servings for K-8 and 75 1-cup servings for 9-12.

Through standardization you and your team will create a recipe that meets the needs of your school(s). How a serving portion of the recipe contributes to meal components is essential information. USDA standardized recipes provide component contributions. For recipes without component contributions, you will need to calculate and add those to the recipe information.

How To Calculate Meal Components per Serving

Once the process of increasing or decreasing a recipe is complete, your next step is to calculate meal components for each serving amount. The *Food Buying Guide for Child Nutrition Programs* (FBG) Recipe Analysis Workbook (RAW) is a tool to help you determine your recipe's meal pattern contributions. You can find a link to the RAW at (**https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs**). The RAW helps you calculate contributions of each ingredient for meal components.

Information you will need to complete the RAW includes:

- Ingredients that contribute to the meal pattern components
- Correct weight and volume of each ingredient
- Serving size (½ cup, 1 slice, 1 sandwich, etc.)
- Servings per recipe.

Review the included user guide and training videos for instructions on using the RAW. This information is located in the *Food Buying Guide for Child Nutrition Programs* (FBG) (**https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs**). You will want to save a copy of the RAW for each recipe you calculate.

A standardized recipe also includes food safety information. Your staff members need to know CCPs and critical limits for safe food production, specific to each recipe or menu item. In the next section, you will learn about HACCP-based food safety procedures.

HACCP-BASED FOOD SAFETY PROCEDURES

The National School Lunch Act requires School Food Authorities (SFAs) to implement a school food safety program based on Hazard Analysis and Critical Control Point (HACCP) principles.

HACCP is a systematic approach of constructing a food safety program. The approach reduces the risk of foodborne hazards by focusing on steps of the food preparation process – receiving through service. A food safety checklist is an excellent tool for developing strong HACCP procedures. The *Food-Safe Schools Action Guide* (Action Guide) (**https://www.fns.usda.gov/sites/default/files/Food-Safe-Schools-Action-Guide.pdf**) features a checklist to evaluate your food safety program. Use the evaluation results to determine any changes needed to your HACCP-based food safety program.

HACCP-Based Standard Operating Procedures (SOPs) Support Your Food Safety Program

SOPs are written instructions for routine activities. Write original or modify sample SOPs to support your food safety program. When followed, SOPs safeguard food during food preparation and service. You need to make your food safety SOPs specific to each school meal production facility in your district. This is because equipment and facilities vary among sites. You may also need to modify them to meet additional State and local requirements. Once you have written SOPs, training, supervision, and management are critical in creating a culture of food safety. The goal is for SOPs to become second nature to your staff.

HACCP-based food safety SOPs include:

- Instructions
- Monitoring procedures
- Corrective actions
- Verification procedures
- Recordkeeping procedures.

Active managerial control (AMC) is critical to the success of a food safety program based on HACCP principles. AMC is a tool that management uses to lead school nutrition staff members in handling food safely. AMC requires school nutrition managers to take proactive and preventive, rather than reactive, approaches to food safety. Your school HACCP-based food safety program is more than a written plan. Your staff puts that plan into action every day. Their routine work habits reduce foodborne illness risk.

Important HACCP Terms

- Hazard Analysis – review of operation to identify areas where food safety problems may occur.
- Control Measures – steps to reduce food contamination or bacterial growth.
- Critical Control Points (CCPs) – points in food preparation where process control (example – cooking) is essential to keep food safe.
- Critical Limits – time and temperature range for food preparation and service for keeping food safe (hot, 135 °F or higher; cold, 41 °F or lower).
- Process Approach – a HACCP method of grouping menu items into one of three processes depending upon the number of times food goes through the temperature danger zone (41 °F to 135 °F).

School Spotlight

School District:
Wilson County Schools

Located:
Wilson, North Carolina

Enrollment:
12,400

Website:
http://www.wilsonschoolsnc.net/

Active Managerial Control with Daily Staff Meetings

Cindy Bailey, R.D., director of Food Services, Wilson County Schools, has developed a policy and standard operating procedure (SOP) for daily menu meetings. This is a great example of Active Managerial Control, taking a proactive and preventive approach to operation challenges. The policy states that school nutrition managers will conduct daily menu meetings with staff to ensure that all lunch and breakfast meals comply with the nutrition standards and food safety practices. During the 5-10 minute meeting, the team reviews:

- Meal equivalents of food items
- Recipes
- Substitutions and/or leftovers
- Time as a Public Health Control (TPHC) items and procedures
- Non-TPHC items to be recorded on daily temperature log
- Components in each menu item and what constitutes a reimbursable meal.

The SOP also states the child nutrition supervisor and child nutrition director will observe daily menu meetings in their kitchen reviews, onsite reviews, and regular visits. Developing a district-wide policy and SOP for daily staff meetings at each school helps ensure consistent implementation through knowledgeable and engaged staff.

Wilson County Schools standard operating procedure calls for a daily menu meeting for staff to review reimbursable meal and food safety practices for each day's menu.

Preparation and service food safety SOPs focus on:

- Controlling time and temperature during:
  - Preparation
  - Cooking of Time/Temperature Control for Safety (TCS) foods
  - Cooling TCS foods
  - Reheating TCS foods
  - Holding hot and cold TCS foods
- Date marking ready-to-eat foods and TCS foods
- Preventing cross-contamination during storage and preparation
- Calibrating and using thermometers
- Using appropriate utensils or wearing gloves when handling ready-to-eat foods.

Your food safety SOPs help your school nutrition team know how to:

- Practice good personal hygiene
- Monitor food temperatures to control time spent in the temperature danger zone
- Use single-use gloves or tongs when handling ready-to-eat foods
- Use a calibrated thermometer to check food temperatures
- Follow CCPs in standardized recipes.
- Meet critical limits
- Record food temperatures during holding, serving, and storage.

Food Safety – Administrative Review

Food safety is a general area of the Administrative Review. To evaluate compliance, the State agency (SA) must:

- Review the written food safety plan for compliance with Hazard Analysis and Critical Control Point (HACCP) program criteria found in Facilities Management, Food safety program; 7 Code of Federal Regulations (CFR) 210.13(c).
- Determine whether the SFA has any contracted or self-operated warehouses and, if so, determine whether all foods (commercial and USDA) are being stored properly.
- Determine whether two food safety inspections have been obtained.
- Confirm the posting of the most recent food safety inspection report.*
- Verify compliance with HACCP principles and local and State health standards.
- Check temperature logs to ensure proper recordkeeping.
- Examine onsite food storage for dates and condition of foods.

SAs are expected to assess food safety compliance offsite and onsite.

* **Note:** Report formats may vary, and in some cases be too large in size to post. Thus, SA reviewers should ensure that the posted portion reflects the inspection dates and approval/disapproval status, and allow that other supporting documents contained in the report be maintained on site and be available upon request.

Excerpted from U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Programs, Administrative Review Manual.

ICN's *HACCP-Based Standard Operating Procedures* (**http://www.theicn.org**) can help you develop and implement a HACCP-based food safety program. The manual includes sample SOPs, record logs, and a food safety checklist. Use the resources listed in the Action Guide and at the ICN website as you develop your food safety program.

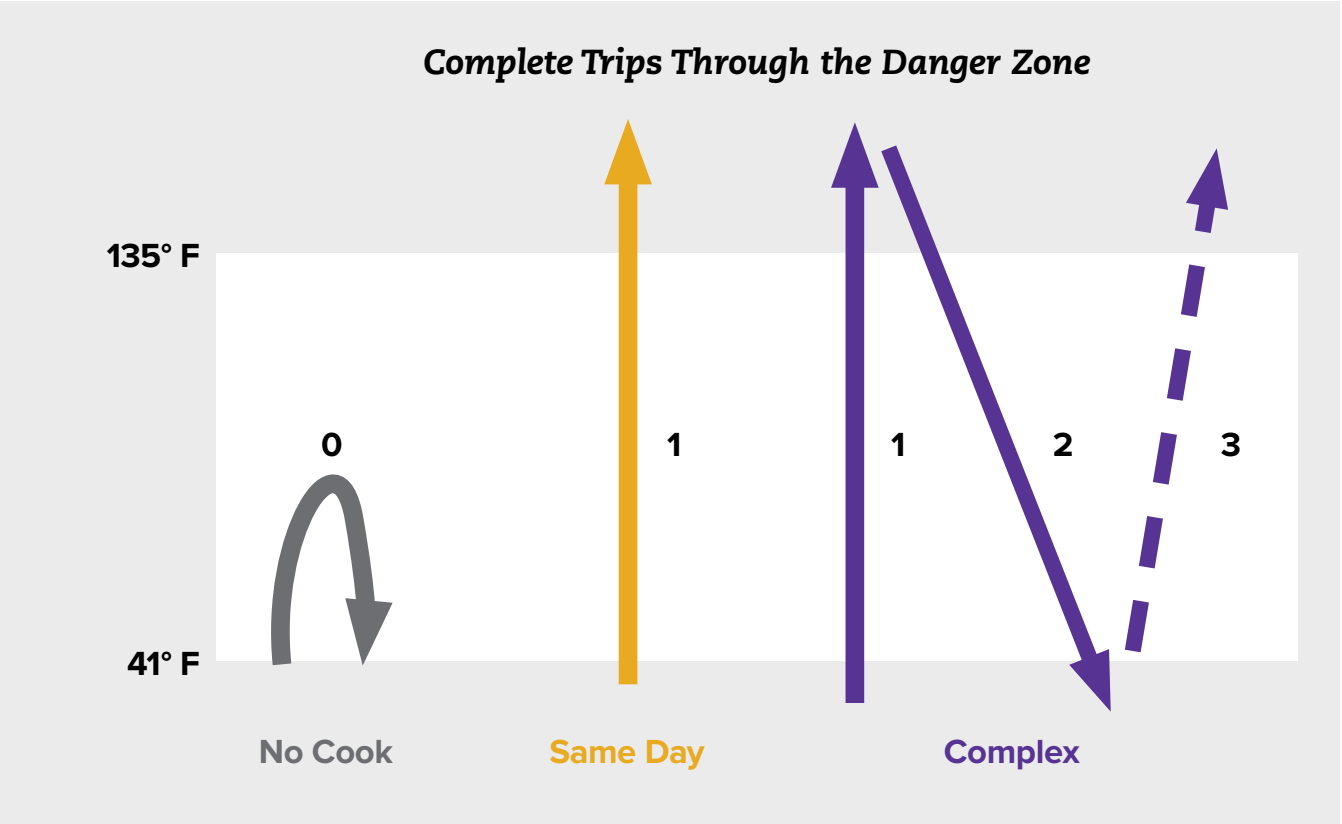
Process Approach to HACCP

One of the ways to build HACCP-based food safety practices into your school nutrition operations is to use the Process Approach to HACCP (Process Approach). Just like it sounds, the Process Approach centers around processes or procedures that ensure safe food-handling practices. USDA recommends that schools use the Process Approach.

With the Process Approach, your menu items/recipes are categorized by the appropriate process and supported by SOPs in your food safety program. Together the SOPs and recipes guide your staff through daily production and service. All recipes have CCPs and critical limits, and the SOPs direct when to monitor, where to log food temperatures, and when and how to take corrective action. Because the same steps or processes are used for all foods in the same category, staff training is focused on daily work habits. So, the Process Approach is another way to incorporate a culture of food safety in your program.

The Process Approach focuses on the number of times a food moves through the temperature danger zone (41 °F to 135 °F). Foods are grouped into one of three process categories (see Appendix 4.C for details on each process):

Danger Zone Diagram



- Process #1 – No Cook

  The menu item does not go through the entire danger zone at any time.

  Example: Melon is washed, peeled, cut, and held for service at 41 °F or lower.

- Process #2 – Same Day Service

  The menu item goes through the danger zone once during cooking.

  Example: Pizza is cooked to 165 °F; held for service at 135 °F or higher; leftovers discarded.

- Process #3 – Complex Food Preparation

  The menu item goes through the temperature danger zone at least twice, first heating (cooking) and then proper cooling for future use.

  Example: Lasagna ingredients prepared in advance

  - Day 1: The noodles are cooked, rinsed, and cooled to 41 °F or less; meat sauce is cooked to 165 °F and cooled to 41 °F or less; ingredients are held at 41 °F or less for further preparation the next day.
  - Day 2: The lasagna ingredients are layered in the baking pan – cooked noodles, meat sauce, and cheese all at 41 °F or less; cooked to 165 °F for 15 seconds; held for service at 135 °F or higher.

Here is how to build the Process Approach into your recipes. Start with a review to determine which process is correct for each recipe or menu item. Make sure CCPs and critical limits are part of the instructions on all of your standardized recipes. Identify where staff will record temperatures, whether on production records or logs. When you have a new or revised menu item, categorize that item in the appropriate process group. Verify the recipe has proper CCPs and critical limits listed.

Train your staff on the Process Approach including how and when to take corrective action and how to document steps taken. Training helps your staff understand the importance of changes on production records, standardized recipes, and other records to incorporate and document your food safety program. Food safety is one of the training topics identified for Professional Standards requirements. *Food Safety in Schools* from ICN, available in English and Spanish (**http://www.theicn.org**), includes training materials on the Process Approach. Establish a monitoring system to confirm that menu items are in the correct process group and that staff members follow established CCPs. Maintain monitoring records to confirm food is safely prepared and served.

The USDA Bok Choy Wrappers recipe mentioned earlier in this chapter includes CCPs in the preparation steps. Preparation step 7 states to bake the bok choy filling to an internal temperature of 165 °F or higher for at least 15 seconds, and step 8 states to hold hot for service at 135 °F or higher. Your recipes should include CCPs if preparation requires foods to move through the temperature danger zone. Any time recipes are modified, include CCPs to maintain food safety.

The SA will review your program for food safety practices and HACCP principles. Recordkeeping and SOPs are critical to adhering to food safety regulations.

Tracking Time and Temperature During Food Production

Time and temperature controls are critical to food safety. All items on your menu should be evaluated to determine those that are potentially hazardous or require time and temperature control for safety. The abbreviation TCS means Time/Temperature Control for Safety (TCS). TCS foods require special controls because these foods support the growth of bacterial pathogens. Examples include meat and poultry, sliced melons or tomatoes, or reheated combination foods such as chili. Time and temperature controls are important to limiting the growth of microorganisms or toxin formation. School nutrition staff must follow established guidelines to meet and maintain food safety standards, which require:

- Maintaining food temperatures above or below the temperature danger zone
- Monitoring foods that pass through the temperature danger zone
- Tracking total time a food is in the temperature danger zone
- Discarding food held in the temperature danger zone more than 4 hours.

Your staff practices food safety with time and temperature controls for foods during preparation, holding, service, and storage. You can learn more about TCS and time and temperature control in *Food Safety Basics* (**http://www.theicn.org**) from the Institute of Child Nutrition.

Preparation and Service During the Administrative Review

The SA must observe meal preparation and service on the day of review at the selected schools to determine whether the SFA follows the food safety program and HACCP principles.

To make this determination, the SA should use the statements below as a guide:

- Proper personal hygiene is evident (hair restraints, gloved hands, appropriate hand washing).
- Cross-contamination is prevented.
- Food temperatures are monitored and recorded.
- Refrigerator and freezer temperatures are monitored and recorded.
- Food preparation and service areas are clean.
- Clean utensils and equipment are used for food preparation and meal service.
- No obvious evidence of pests is present.

Note: These statements are not exhaustive, and the SA should use discretion regarding any observations related to improper food handling. For example, if the SFA Onsite Monitoring form for a selected school noted a particular food safety violation, then the SA should ensure that the same violation does not occur during the day of review. Furthermore, the SA should ensure that a copy of the food safety program is available and easily accessible to food service staff at each selected school.

Excerpted from U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Programs. Administrative Review Manual.

CONCLUSION

Production records, standardized recipes, and Hazard Analysis and Critical Control Point (HACCP) food safety procedures are critical to the success of your school nutrition program. The production record provides the planned and actual menu items produced and served. The standardized recipe provides a quality product consistent with the menu. Follow HACCP-based Standard operating procedures (SOPs) to ensure your food safety program applies to every food item and meal prepared.

Production records, standardized recipes, and written HACCP-based food safety SOPs ensure your customers receive nutritious, safe, high-quality meals that not only meet regulations, but also taste good! Let's summarize the key points of this chapter:

- Production records provide:
  - Preparation and service information
  - Actual daily counts of meals produced and served for reimbursement
  - Records for forecasting, procurement, and inventory management
  - Records for the Administrative Review (AR).
- Standardized recipes:
  - Are tested for use in your kitchen(s) and produce consistent good results and yields every time when using the same procedures, equipment, and quality and quantity of ingredients
  - Help provide:
    - Reliable nutrition content
    - Food-safe practices
    - Product quality and quantity management
    - Reliable production forecasting
    - Cost control
    - Consistent results that students expect
  - Are not standardized *until* they are modified to meet your specific school nutrition program
  - Are developed in three phases:
    - Recipe verification
    - Product evaluation
    - Quantity adjustment.
- HACCP-based food safety programs:
  - Are required in your school nutrition program
  - Use written food safety SOPs that include:
    - Instructions
    - Corrective actions
    - Monitoring procedures
    - Verification procedures
    - Recordkeeping procedures
  - Often use standardized recipes that incorporate the Process Approach to HACCP
  - Include staff training and Active Managerial Control (AMC).

Production records, standardized recipes, and HACCP-based food safety procedures are vital to your school nutrition program. They help ensure your operations meet NSLP and SBP guidelines and food safety regulations as well as satisfy your customers. Your entire school nutrition team will rely on the information provided by production, recipe, and HACCP documentation to prepare and serve nutritious, safe foods. That is a formula for success and increased student participation. In the next chapter, you will learn how to procure food and supplies.

Review and answer each of these questions. You will find the answer key at the end of the Menu Planner.

1. What are the two steps for completing production records?
2. What are three advantages of standardized recipes?
3. What are the three phases of recipe standardization?
4. HACCP-based SOPs include what five steps?
5. What is the Process Approach to HACCP?

If you got the answers right, great job! You are ready for the next chapter. If you missed any, review that section of the chapter before moving on to the next chapter.

LINKS TO ADDITIONAL RESOURCES

Institute of Child Nutrition, Basics at a Glance, University, MS (**http://www.theicn.org**).

Institute of Child Nutrition, Developing a Food Safety Program Using the Process Approach, Satellite Seminar, 2006, University, MS (**http://www.theicn.org**).

Institute of Child Nutrition, Food Buying Guide Calculator for Child Nutrition Programs, University, MS (**http://www.theicn.org**).

Institute of Child Nutrition, Food Safety Basics, University, MS (**http://www.theicn.org**).

Institute of Child Nutrition, Food Safety in Schools, University, MS and Spanish (**http://www.theicn.org**).

Institute of Child Nutrition, HACCP-Based Standard Operating Procedures, 2005, University, MS (**http://www.theicn.org**).

Institute of Child Nutrition, Measuring Success with Standardized Recipes, 2002, University, MS (**http://www.theicn.org**).

Institute of Child Nutrition, Production Records, University, MS (**http://www.theicn.org**).

U.S. Department of Agriculture, Food and Nutrition Service, Food Buying Guide Appendix A: Recipe Analysis Workbook, Alexandria, VA (**https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs**).

U.S. Department of Agriculture, Food and Nutrition Service, Food Buying Guide for Child Nutrition Programs, Alexandria, VA (**https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs**).

U.S. Department of Agriculture, Food and Nutrition Service, Food-Safe Schools Action Guide, Alexandria, VA (**https://www.fns.usda.gov/sites/default/files/Food-Safe-Schools-Action-Guide.pdf**).

U.S. Department of Agriculture, Food and Nutrition Service, Guidance for School Food Authorities: Developing a School Food Safety Program Based on The Process Approach to HACCP Principles, 2005, Alexandria, VA (**https://www.fns.usda.gov/sites/default/files/Food_Safety_HACCPGuidance.pdf**).

U.S. Department of Agriculture, Food and Nutrition Service, Child Nutrition Programs, Administrative Review Manual (contact your State agency for the most current version).

U.S. Department of Agriculture, Food and Nutrition Service, Team Nutrition, Recipes for Healthy Kids Cookbook for Schools, Alexandria, VA (**https://www.fns.usda.gov/tn/recipes-healthy-kids-cookbook-schools**).

U.S. Department of Agriculture, Food and Nutrition Service, Team Nutrition, Taste Testing and Evaluating Recipes (**https://www.fns.usda.gov/tn/team-nutrition**).

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APPENDIX ITEMS

Appendix 4.A Production Record Samples

Appendix 4.B Basics at a Glance

Appendix 4.C The Process Approach to HACCP for No Cook, Same Day Service, and Complex Food Preparation