Module Title: MENU PLANNING AND COSTING

Department: Hospitality Management

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Lecture 5 : Financial Aspects of Menu Planning

THE YIELD TEST

- Yield tests are an essential part of determining the profitability of a menu item.
- This chapter discusses the types of yield tests, how to do a yield test, and their importance.

Objectives

At the end of this lecture, learners will be able:

- ❑To define yield tests
- ❑ To explain how to use yield tests within the foodservice industry
- ❑ To discuss how a yield test is used when planning menus
- ❑ To calculate the cost of a yield test

Defining the Yield Test

- A yield test is used to determine the amount of **edible product (EP)** (also referred to as yield) and the amount of **waste product (WP)** of a particular food item.

- It is essential for a menu planner to know the amount of **EP** in food items to avoid purchasing an item that yields **very little EP** and produces **WP** that cannot be used.

- The **higher the yield of a food item, the greater the number of portions that will be available and the higher the profit.**
- Yield tests should be done **at least three times** for every food item used in a foodservice operation.

- Management and chefs should know how much each food item yields.
- Since foods vary in terms of **their perishability**, the amount of yield varies from one delivery to the next.

- Food items that have a high perishability factor such as meats, poultry, fruits, and seafood should have yield tests **on a regular basis**.
- Management must be demanding when setting specifications for food items.

- Specifications determine a standard of quality in a food product.

❑Examples of such factors include:

- **Weight**
- **Color**
- **Shape**
- **Grade**

- **Texture**
- **Size**
- **Odor**
- **Packaging**
- **Product temperature**
- **Yield grade**

✓It is these specifications that help to determine the quality of food.

- A yield test should be conducted under two conditions: **(1) in a controlled environment and (2) during actual production time.**
- **A controlled environment** exists when the individual conducting the yield test is not **distracted by anything or anyone, is not rushed, and has all the necessary equipment** to perform the test.

- A yield test that is performed during actual production provides a **noncontrolled environment** because distractions exist.
- The reason for conducting a yield test under each of these conditions is to provide management with both the **maximum and minimum yield that a product can produce.**

- The actual yield is **always lower until management trains employees to cut and serve food items properly in order to gain a better yield.**

Types of Yield Tests

- There are two basic types of yield tests:

1. A convenience food yield test

2. A fresh food yield test

1. Convenience Food Yield Test

- The convenience food yield test is done on food items that have **been prepackaged into cans, bags, and boxes.**
- This test consists of **opening packages and weighing the amount of edible product.**
- Packing is the extra filling placed inside a convenience food product to keep its quality.

- This test determines if the amount of packaging is within the specifications stated.
- If the amount of packing is different than the specifications stated management **is losing money by paying for excess packing.**

- The Food and Drug Administration has set standards for **the amount of packing** used in all canned products.

2. Fresh Food Yield Test

- The fresh food yield test is done on food items that are purchased in **an unaltered, fresh state.**
- This test consists of weighing food items both before starting any type of preparation, and after completing the final preparation.

- This test is completed in eight steps:

1. The fresh food product is weighed as it is received.

2. The fresh food product is weighed after it comes out of storage. Most foods lose weight during storage through evaporation.

3. Any undesirable parts, such as fat, bones, outer leaves, etc., are trimmed.

- 4. The fresh food product is washed and weighed. (At this point, the convenience food yield test also can be calculated).
- 5. The food is prepared and cooked. The food is weighed to determine the amount of weight loss caused through shrinkage during the cooking stage.

6. The food product is cut into portion sizes.

7. The food product is cut to determine the amount of edible product lost during the portioning or carving stage.

8. Once the food item has been cut into the total number of portions, the amount of waste product is totaled.

MEAT CUTTING YIELD TEST								
Item: Pork Loin			Grade:	A-1	Date			
	Weight	% of Total	Value Per Kg	Total Value	Cost Factor	EP cost (per Kg)	Portion Size	Portion Cost
Whole piece (AP)	2.5 kg		$12.14	$30.35				
Breakdown								
Fat & gristle	850 g	34%	$0.20	$0.17				
Loss in cutting	100 g	4%	0					
Trim	250 g	10%	$7.49	$1.87				
Usable Meat	1300 g	52%		$28.31	1.79	$21.78	250 g	$5.45

Yield Testing (2024), https://opentextbc.ca/basickitchenandfoodservicemanagement/wp-content/uploads/sites/118/2015/07/Screen-Shot-2015-07-16-at-2.01.43-PM.png

Calculating a Yield Test

- **Step 1**
- **Establish the AP weight.**
- The AP weight is the as purchased weight of the raw product. Weigh the product.

- **Step 2**
- **Calculate the amount of waste.**
- Weigh all waste product, such as bones, fat, outer leaves, and so forth

- **Step 3**
- **Calculate the edible product.**
- AP weight - Waste product = Edible product
- For Example: 10 lb - 3 lb = 7 lb

- **Step 4**
- Convert the edible product unit of measurement (possibly pounds to ounces), if the single portion size to be served is different from the edible product amount
- **Edible product * 16 oz (1 lb) = Total number of portions.**
- For example:
- 7 lb * 16 oz (1lb) = 112 oz

- **Step 5**
- Calculate the number of individual portions available. Then divide the total number of portions available by the individual portion size to get the num ber of portions available.
- For example:
- 112 oz : 4 oz = **28**

- **Step 6**
- Establish the individual portion cost.
- Take the total cost and divide it by the total number of portions.
- This equals the individual portion cost.
- For example:
- $20 : 28 = **$0.72**

Practice Problem

- **Question 1: Given that:**
- AP Weight 30 lb
- AP Price $5.95 lb
- Waste 3 lb
- Portion Size 3 oz

- Task: **find out :**
- Total Extension_____
- Total # of Portions_____
- Portion Cost_____

- **Answer 1:**
- Total Extension $178.50
- Total # of Portions 144
- Portion Cost $1.24

Let do it together:

- Question 2: **Given That:**
- AP Weight 19 lb
- AP Price $8.77 lb
- Waste 2 lb
- Portion Size 6 oz

Task:

- **Find out:**
- Total Extension_____
- Total # of Portions_____
- Portion Cost_____

Let do together:

Compare the answer:

- **Answer 2:**
- Total Extension $166.63
- Total # of Portions 45
- Portion Cost $3.70

Some Examples of Edible Yields Percentage for food items:

Fresh Vegetables and Fruits	One Pound as Purchased = Edible Yield (%)
Apples	= 91%
Apricots	= 93%
Asparagus	= 53%
Avocados	= 67%
Bananas	= 65%
Beans, green	= 88%
Beans, lima	= 44%
Beans, wax (yellow)	= 88%
Beet greens	= 48%
Beets	= 77%

Paul J. McVety et al (2009), Fundamentals of Menu Planning, p106 – p109
https://lib.unika.ac.id/index.php?p=fstream-pdf&fid=3132&bid=48553356

Fresh Vegetables and Fruits	One Pound as Purchased = Edible Yield (%)
Carrots	= 70%
Cauliflower	= 62%
Celery	= 83%
Chard, Swiss	= 92%
Cherries	= 98%
Chicory	= 89%
Collards	= 57%
Corn, on the cob	= 33%
Cranberries	= 95%
Cucumbers	= 84%

Paul J. McVety et al (2009), Fundamentals of Menu Planning, p106 – p109
https://lib.unika.ac.id/index.php?p=fstream-pdf&fid=3132&bid=48553356

Beef	One Pound as Purchased = Edible (Cooked) Yield (%)
Brisket, corned (boned)	= 70%
Brisket, fresh (boned)	= 69%
Ground meats (26% fat)	= 72%
Ground meats (20% fat)	= 74%
Ground meats (15% fat)	= 75%
Ground meats (10% fat)	= 76%
Roast, chuck (without bone)	= 63%
Roast, chuck (with bone)	= 54%
Rump (without bone)	= 68%
Rump (with bone)	= 62%

Paul J. McVety et al (2009), Fundamentals of Menu Planning, p106 – p109
https://lib.unika.ac.id/index.php?p=fstream-pdf&fid=3132&bid=48553356

Poultry	One Pound as Purchased = Edible (Cooked) Yield (%)
Chicken breast halves	= 66% w/skin
(approx. 6.1 oz with ribs)	= 56% w/o skin
Chicken breast halves	= 55% w/skin
(approx. 7.5 oz with backs)	= 47% w/o skin
Turkey	= 53% w/skin
Turkey	= 47% w/o skin
Other Meats	
Lamb chops (shoulder, with bone)	= 46%

Paul J. McVety et al (2009), Fundamentals of Menu Planning, p106 – p109
https://lib.unika.ac.id/index.php?p=fstream-pdf&fid=3132&bid=48553356

References

[1] Paul J. McVety et al (2009), Fundamentals of Menu Planning, p99 – p110

https://lib.unika.ac.id/index.php?p=fstream-pdf&fid=3132&bid=48553356

[2] SKAGEN, RAVINTOLA (2019), Menu planning and costing

https://www.theseus.fi/bitstream/10024/267034/2/Venalainen_Kristiina.pdf

End of Lecture 5

Next lecture : Assignment 1

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Thank you!