

How to Use the Yield Calculation Guide



ARKANSAS
DEPARTMENT
OF EDUCATION

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What is the Yield Calculation Guide?

- The Yield Calculation Guide is a tool to assist those completing the production record.
- The yield information found in Columns 3 and 5 of the Food Buying Guide is directly related to the serving size in Column 4.
- Schools often plan a serving size different from that listed in Column 4. Therefore, math is required, and it **MUST** be correct.

Yield Calculation Guide

The yield information in the Food Buying Guide (FBG) (Column 3 and Column 5) is directly related to the size of the serving size planned.

The serving size listed in the FBG for most Meat/Meat Alternates is 1 ounce or 1 ½ ounces.

Most Fruits and Vegetable serving size listed in the FBG is ¼ cup.

If a **LARGER** serving than the one listed in Column 4 in the FBG is planned there will be **FEWER** serving in each purchase unit (can or pound). More purchase units will be needed.

If a **SMALLER** serving than the one listed in Column 4 in the FBG is planned there will be **MORE** serving in each purchase unit (can or pound). Fewer purchase units will be needed.

Change Serving Size from ¼ cup to:	Servings Per Purchase Unit in FBG	Math Calculation	Purchase Units for 100	Math Calculation
Based on ¼ cup serving size				
1/8 cup	Col. 3	X 2	Col. 5	÷ 2
3/8 cup	Col. 3	÷ 1.5	Col. 5	X 1.5
½ cup	Col. 3	÷ 2	Col. 5	X 2
5/8 cup	Col. 3	÷ 2.5	Col. 5	X 2.5
¾ cup	Col. 3	÷ 3	Col. 5	X 3
1 cup	Col. 3	÷ 4	Col. 5	X 4
1 1/3 cup	Col. 3	÷ 4 then X 3	Col. 5	X 4 then ÷ 3
Based on 1 ounce serving size				
½ ounce	Col. 3	X 2	Col. 5	÷ 2
2 ounce	Col. 3	÷ 2	Col. 5	X 2
3 ounce	Col. 3	÷ 3	Col. 5	X 3
Based on 1 ½ ounce serving size				
3 ounce	Col. 3	÷ 2	Col. 5	X 2

Now that you know how to read the FBG information and how to use the Yield Calculation Guide, let's look at changing serving sizes, because the vegetables are not always served in $\frac{1}{4}$ cups.

Using the FBG and the Yield Calculation Guide

- In the FBG find:
 - Corn, canned, Whole kernel, Liquid pack, Includes USDA Foods
 - 39.6 – $\frac{1}{4}$ cup heated, drained vegetable servings are in each No. 10 can
 - It takes 2.6 No. 10 cans to serve 100 $\frac{1}{4}$ cup servings.
- But the menu planner has indicated that the planned serving size is $\frac{1}{2}$ cup.
- $\frac{1}{2}$ cup is bigger than $\frac{1}{4}$ cup.
 - Twice as big.
- Will there be more or less than 39.6 – $\frac{1}{2}$ cup servings in the No. 10 can?
- Note: corn credits $\frac{1}{2}$ cup serving starchy vegetable



Using the FBG and the Yield Calculation Guide

- Corn, canned, Whole kernel, Liquid pack, Includes USDA Foods
 - 39.6 – ¼ cup heated, drained vegetable servings are in each No. 10 can
 - It takes 2.6 No. 10 cans to serve 100 ¼ cup servings.
- Calculations:
 - $39.6 \div 2 = 19.6$ – ½ cup servings per No. 10 can

Yield Calculation Guide

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If a LARGER serving than the one listed in Column 4 in the FBG is planned there will be FEWER servings in each purchase unit (can or pound). More purchase units will be needed.

If a SMALLER serving than the one listed in Column 4 in the FBG is planned there will be MORE servings in each purchase unit (can or pound). Fewer purchase units will be needed.

Change Serving Size from ¼ cup to:	Servings Per Purchase Unit in FBG	Math Calculation	Purchase Units for 100	Math Calculation
Based on ¼ cup serving size				
1/8 cup	Col. 3	X 2	Col. 5	÷ 2
3/8 cup	Col. 3	X 1.5	Col. 5	X 1.5
½ cup	Col. 3	+ 2	Col. 5	X 2
5/8 cup	Col. 3	X 2	Col. 5	X 2.5
¾ cup	Col. 3	+ 3	Col. 5	X 3
1 cup	Col. 3	+ 4	Col. 5	X 4
1 1/3 cup	Col. 3	÷ 4 then X 3	Col. 5	X 4 then ÷ 3
Based on 1 ounce serving size				
½ ounce	Col. 3	X 2	Col. 5	÷ 2
2 ounce	Col. 3	+ 2	Col. 5	X 2
3 ounce	Col. 3	+ 3	Col. 5	X 3
Based on 1 ½ ounce serving size				
3 ounce	Col. 3	+ 2	Col. 5	X 2

Using the FBG and the Yield Calculation Guide

- In the FBG find: **using the same corn...**
 - Corn, canned, Whole kernel, Liquid pack, Includes USDA Foods
 - 39.6 – ¼ cup heated, drained vegetable servings are in each No. 10 can
 - It takes 2.6 No. 10 cans to serve 100 ¼ cup servings.
- But the menu planner has indicated that the planned serving size is 1 cup.
- 1 cup is bigger than ¼ cup.
 - 4 Times bigger.
- Will there be more or less than 39.6 – ½ cup servings in the No. 10 can?
- Note: corn credits ½ cup serving = ½ cup contribution

Using the FBG and the Yield Calculation Guide

- Corn, canned, Whole kernel, Liquid pack, Includes USDA Foods
 - 39.6 – ¼ cup heated, drained vegetable servings are in each No. 10 can
 - It takes 2.6 No. 10 cans to serve 100 ¼ cup servings.
- Calculations:
 - $39.6 \div 4 = 9.9$ – 1 cup servings per No. 10 can

Yield Calculation Guide

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If a SMALLER serving than the one listed in Column 4 in the FBG is planned there will be MORE servings in each purchase unit (can or pound). Fewer purchase units will be needed.

Change Serving Size from ¼ cup to:	Servings Per Purchase Unit in FBG	Math Calculation	Purchase Units for 100	Math Calculation
Based on ¼ cup serving size				
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3/8 cup	Col. 3	÷ 1.5	Col. 5	X 1.5
½ cup	Col. 3	÷ 2	Col. 5	X 2
5/8 cup	Col. 3	÷ 2.5	Col. 5	X 2.5
¾ cup	Col. 3	÷ 3	Col. 5	X 3
1 cup	Col. 3	÷ 4	Col. 5	X 4
1/3 cup	Col. 3	÷ 4 then X 3	Col. 5	X 4 then ÷ 3
Based on 1 ounce serving size				
½ ounce	Col. 3	X 2	Col. 5	÷ 2
2 ounce	Col. 3	÷ 2	Col. 5	X 2
3 ounce	Col. 3	÷ 3	Col. 5	X 3
Based on 1 ½ ounce serving size				
3 ounce	Col. 3	÷ 2	Col. 5	X 2

Using the FBG and the Yield Calculation Guide

- In the FBG find: **using the same corn...**
 - Corn, canned, Whole kernel, Liquid pack, Includes USDA Foods
 - 39.6 – ¼ cup heated, drained vegetable servings are in each No. 10 can
 - It takes 2.6 No. 10 cans to serve 100 ¼ cup servings.
- But the menu planner has indicated that the planned serving size is 1/8 cup.
- 1/8 cup is smaller than ¼ cup.
 - Half as big.
- Will there be more or less than 39.6 – ½ cup servings in the No. 10 can?
- Note: corn credits ½ cup serving = ½ cup contribution

Using the FBG and the Yield Calculation Guide

- Corn, canned, Whole kernel, Liquid pack, Includes USDA Foods
 - 39.6 – ¼ cup heated, drained vegetable servings are in each No. 10 can
 - It takes 2.6 No. 10 cans to serve 100 ¼ cup servings.
- Calculations:
 - 39.6 X 2 = 79.2 – 1/8 cup servings per No. 10 can

Yield Calculation Guide

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Most Fruits and Vegetable serving sizes listed in the FBG is ¼ cup.

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If a SMALLER serving than the one listed in Column 4 in the FBG is planned there will be MORE servings per each purchase unit (can or pound). Fewer purchase units will be needed.

Change Serving Size from ¼ cup to:	Servings Per Purchase Unit in FBG	Math Calculation	Purchase Units for 100	Math Calculation
Based on ¼ cup serving size				
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3/8 cup	Col. 3	÷ 1.5	Col. 5	X 1.5
½ cup	Col. 3	÷ 2	Col. 5	X 2
5/8 cup	Col. 3	÷ 2.5	Col. 5	X 2.5
¾ cup	Col. 3	÷ 3	Col. 5	X 3
1 cup	Col. 3	÷ 4	Col. 5	X 4
1/3 cup	Col. 3	÷ 4 then X 3	Col. 5	X 4 then ÷ 3
Based on 1 ounce serving size				
½ ounce	Col. 3	X 2	Col. 5	÷ 2
2 ounce	Col. 3	÷ 2	Col. 5	X 2
3 ounce	Col. 3	÷ 3	Col. 5	X 3
Based on 1 ½ ounce serving size				
3 ounce	Col. 3	÷ 2	Col. 5	X 2

The Yield Calculation Guide works the same way for any item listed in the FBG.

Did you notice the helpful hint in the RED Circle?

Example – Green Beans, canned, cut: #10 can provides 45.3 – ¼ cup heated drained vegetable servings.
 Each #10 can provides 22.6 – ½ cup servings.
 If the planned meal pattern contribution is ½ cup, 22.6 should be in Column C beside the green beans.

Use the “Yield Calculation Guide” as a cheat sheet.

FOOD ITEM	(A) NUMBER PLANNED FOR	(B) CONTRIB MEAL PATTERN	TEMP	(C) SERVINGS PER UNIT (FBG 3)	(D) AMOUNT FOR 100 UNIT (FBG 5)	AMOUNT NEEDED TODAY (A / C) OR (.A x D)	(E) ACTUAL AMOUNT USED	(F) PORTIONS PREPARED (E x C)	(G) PORTIONS LEFTOVER	(H)* PORTIONS SERVED (F - G)	* Column (H) must be equal to or more than the number of students served unless Offer vs. Serve is used. **COMMENT S** Discard Food Calibrate Thermometer
			C F C R = Reheat								
MEAT/ALTERNATE											
VEGETABLE											
GRAIN/BREAD											
FRUIT											
MILK											
Low-Fat 1%											
Skim											
Skim - Chocolate											
OTHER FOODS											

Look up the exact item used in the Food Buying Guide (FBG).

Adjust the serving per purchase unit listed in Column 3 of the FBG to the serving size being served on this planned menu.

Reminder: If you want a larger serving size than listed in Column 4, the servings per purchase unit in Column 3 will be SMALLER.

Using the FBG and the Yield Calculation Guide

- In the FBG find: **using green beans...**
- Green Beans, canned, cut
 - #10 can provides 45.3 – $\frac{1}{4}$ cup heated drained vegetable servings.
- But the menu planner has indicated that the planned serving size is $\frac{1}{2}$ cup.
- $\frac{1}{2}$ cup is larger than $\frac{1}{4}$ cup.
 - Twice as big
- Will there be more or less than 45.3 – $\frac{1}{2}$ cup servings in the No. 10 can?
- Note: green beans credit $\frac{1}{2}$ cup serving = $\frac{1}{2}$ cup contribution

Using the FBG and the Yield Calculation Guide

- Green Beans, canned, cut
 - #10 can provides 45.3 – ¼ cup heated drained vegetable servings
 - It takes 2.3 No. 10 cans to serve 100-¼ cup servings.

- Calculations:
 - $45.3 \div 2 = 22.6$ – 1/2 cup servings per No. 10 can

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¾ cup	Col. 3	+ 3	Col. 5	X 3
1 cup	Col. 3	+ 4	Col. 5	X 4
1/3 cup	Col. 3	÷ 4 then X 3	Col. 5	X 4 then ÷ 3
Based on 1 ounce serving size				
½ ounce	Col. 3	X 2	Col. 5	÷ 2
2 ounce	Col. 3	÷ 2	Col. 5	X 2
3 ounce	Col. 3	÷ 3	Col. 5	X 3
Based on 1 ½ ounce serving size				
3 ounce	Col. 3	÷ 2	Col. 5	X 2

Using the FBG and the Yield Calculation Guide

- In the FBG find: **using green beans...FROZEN**
- Green Beans, frozen, cut
 - 1 pound provides 11.6 – $\frac{1}{4}$ cup heated drained vegetable servings.
- But the menu planner has indicated that the planned serving size is $\frac{1}{2}$ cup.
- $\frac{1}{2}$ cup is larger than $\frac{1}{4}$ cup.
 - Twice as big
- Will there be more or less than 11.6 – $\frac{1}{2}$ cup servings in the No. 10 can?
- Note: green beans credit $\frac{1}{2}$ cup serving = $\frac{1}{2}$ cup contribution

Using the FBG and the Yield Calculation Guide

- Green Beans, FROZEN, cut
 - 1 **pound** provides 11.6 – ¼ cup heated drained vegetable servings
 - It takes 8.7 pounds to serve 100-¼ cup servings.

- **Calculations:**

- $11.6 \div 2 = 5.8$ – 1/2 cup servings per **POUND**

Yield Calculation Guide

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3/8 cup	Col. 3	+ 1.5	Col. 5	X 1.5
½ cup	Col. 3	+ 2	Col. 5	X 2
5/8 cup	Col. 3	+ 2.5	Col. 5	X 2.5
¾ cup	Col. 3	+ 3	Col. 5	X 3
1 cup	Col. 3	+ 4	Col. 5	X 4
1/3 cup	Col. 3	÷ 4 then X 3	Col. 5	X 4 then ÷ 3
Based on 1 ounce serving size				
½ ounce	Col. 3	X 2	Col. 5	÷ 2
2 ounce	Col. 3	÷ 2	Col. 5	X 2
3 ounce	Col. 3	÷ 3	Col. 5	X 3
Based on 1 ½ ounce serving size				
3 ounce	Col. 3	÷ 2	Col. 5	X 2

Any crediting ingredient/item at any contribution amount can be calculated the same way.

This is the CORRECT way to calculate the “Servings Per Unit” (Column C) on the Production Record when the serving / crediting is anything other than what is listed in the FBG.

If you have problems, call your
area specialists for assistance.

(501) 324-9502



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