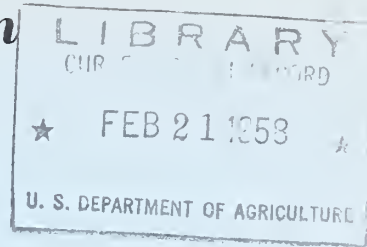


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A School Lunch Demonstration

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Use of Dried Whole Egg Solids

This demonstration on the use of dried whole egg solids has been prepared to be used at school lunch workshops and other educational meetings held at State or local levels for school lunch managers and workers. It is designed to show proper methods of using dried whole egg solids in school lunch recipes adapted from PA-271, "Recipes -- Type A School Lunches."

As specified in the USDA instructions for use of dried whole egg solids, only thoroughly cooked dishes are featured. To show the use of dried egg solids reconstituted in liquid form, a meat-potatoburger recipe has been used. For the dry mix method of reconstituting the dried egg solids, a brownie recipe has been used. The demonstration has been planned to show preparation of 50 portions of each of the above recipes.

The demonstration requires 1 demonstrator and 1 assistant and the approximate time required to give the presentation is 1-1/2 hours. The approximate time required for the advance preparation is 4-1/2 hours.

This sample demonstration is a suggested method of setting up a food demonstration following the outline in AMS-222, "Planning and Presenting a School Lunch Food Demonstration". It should be useful in setting up other school lunch food demonstrations.

This material was developed by the Food Distribution Division, Agricultural Marketing Service, in cooperation with the Institute of Home Economics, Agricultural Research Service.

U. S. Department of Agriculture
Agricultural Marketing Service
Food Distribution Division

MEAT-POTATOBURGERS (Using dried whole egg solids)

100 Portions		Ingredients	For <u>50</u> ¹ / _{Portions}	Directions
Weights	Measures			
12 oz.	1 qt., sifted 1 qt.	Dried whole egg Water.....	<i>6 oz.</i> <i>2 cups</i>	1. Sprinkle dried egg over the water and beat to blend.
10 lb. 5 lb. 10 lb. 4 oz. 3 lb. 4 oz. 1-1/4 gal. 2 qt. 1/2 cup	Ground beef Ground pork Finely chopped potatoes Chopped onion .. Salt.....	<i>5 lb.</i> <i>2 1/2 lb.</i> <i>5 lb. 2 oz.</i> <i>1 lb. 8 oz.</i> <i>2 oz.</i>	2. Combine egg, meat, potatoes, onion, and salt. 3. Portion with a No. 8 scoop (1/2 cup) rounded and place in baking pans.
4 oz.	1 cup, sifted 1 gal. 1-1/2 qt.	All-purpose flour Tomato juice	<i>2 oz.</i> <i>2 3/4 qt.</i>	4. Blend the flour with 2 cups tomato juice. Heat remaining tomato juice and add to the flour mixture. Cook until slightly thickened, stirring constantly. Pour over the patties. 5. Bake at 375° F. (moderate) 45 minutes.

PORTION: 1 patty - provides the equivalent of 2 ounces of protein-rich food and 1/4 cup vegetable.

1/ For demonstration prepare 50 portions.

BROWNIE MIX (Using dried whole egg solids)

100 Portions		Ingredients	For 50 1/2 Portions	Directions
Weights	Measures			
2 lb.	2 qt., sifted	All-purpose flour	1 lb.	1. Sift ingredients together three times or blend 15 minutes in mixer on low speed, using the whip. 2. Store in a tightly covered container in the refrigerator until needed. YIELD: 7 pounds 11 oz. (about 1-1/4 gal. 1 cup).
12 oz.	3 cups	Nonfat dry milk	6 oz.	
4 lb.	2 qt.	Sugar.....	2 lb.	
8 oz.	2 cups	Cocoa	4 oz.	
6 oz.	2 cups, sifted	Dried whole egg	3 oz.	
1 oz.	3 tbsp.	Baking powder	1/2 tbsp.	
1 oz.	2 tbsp.	Salt	1 tbsp.	

BROWNIES (Using Brownie Mix)

100 Portions		Ingredients	For 50 1/2 Portions	Directions
Weights	Measures			
7 lb. 11 oz.	1-1/4 gal., 1 cup, sifted 1-1/4 qt.	Brownie mix	3 lb. 13 oz.	3. To brownie mix add water, vanilla and the fat. Beat 2 minutes or until well blended on medium speed.
1 oz.	2 tbsp.	Water	2 1/2 cups	
1 lb. 8 oz.	3 cups	Vanilla	1 tbsp.	
		Melted butter or margarine	12 oz.	
1 lb.	Chopped nuts or raisins	8 oz.	4. Mix in nuts or raisins. 5. Bake in 2 greased sheet pans (15 x 24 x 1 inch) at 350° F. (moderate) about 30 minutes.

PORTION: 1 piece (3 x 3-1/2 x 1/2 inch).

VARIATION

1. CHOCOLATE COOKIES: Reduce water to 2-1/2 cups. Portion with a No. 40 scoop (1-3/5 tablespoons). Bake at 375° F. (moderate) 12 minutes. Portion: 2 cookies.

1/ For demonstration prepare 50 portions.

MARKET ORDER

(50 Portions)

Meat-Potatoburgers and Brownie Mix

1-1/2 lb. all-purpose flour, USDA-donated	1 lb. butter or margarine
1/2 lb. nonfat dry milk, USDA-donated	1/2 lb. nuts or raisins
1 No. 10 can dried whole egg solids, USDA-donated	5 lb. ground beef
2-1/2 lb. sugar	2-1/2 lb. ground pork
1 small box cocoa	6-1/2 lb. potatoes
1 small can baking powder	2 lb. onions
1 small box salt	1 No. 10 can tomato juice
1 small bottle vanilla	1 bunch parsley
	2 green peppers

EQUIPMENT LIST

(Minimum)

<u>Number</u>	<u>Items</u>	<u>Number</u>	<u>Items</u>
2	tables (approx. 6 ft. long), 1 for demonstration and 1 for tray set-up	1	set weights for scales
1	range	1	15 x 24 x 1 inch sheet pan
2	ovens (institutional type)	2	12 x 20 x 2 inch steamtable pans
1	food chopper or grinder	2	1-cup measures
1	20-qt. bench or floor type mixer	2	2-cup measures
1	20-qt. bowl for mixer	2	1-gallon measures
1	flat beater for mixer	1	6-qt. double boiler
1	wire whip for mixer	1	small sauce pan
1	scale for weighing ingredients	1	set nested measuring cups

Equipment List - Cont'd

<u>Number</u>	<u>Items</u>	<u>Number</u>	<u>Items</u>
1	set measuring spoons	1	minute timer
6	small mixing bowls	2	hot pads
3	medium mixing bowls	4	dish towels
2	spatulas	2	dish cloths
1	French knife	1	roll paper towels
1	small French whip	1	roll waxed paper
3	short-handled bowl scrapers	1	roll aluminum foil
4	long-handled bowl scrapers	1	small pan for water or damp cloth (for washing hands)
1	8-ounce ladle	8	trays (approx. 14x18 inches)
1	No. 8 scoop	1	medium cutting board
3	11 to 13 inch solid mixing spoons	1	sifter
3	tablespoons	1	plastic lid for No. 10 can
1	pastry brush	1	4 to 6 ft. overhead mirror (optional)
5	custard cups		Detergent for washing dishes

TABLE AND TRAY SET-UP FOR DRIED EGG DEMONSTRATION

On Demonstration Table

1 damp dish cloth

1 dry dish cloth

2 hot pads

1 small pan water or damp cloth (for washing hands)

Paper towels

Scales and weights

1 No. 10 can of dried egg (opened)

Tray No. 1 - Meat-Potatoburgers

Recipe

2 cups water

1 spatula

1 wire whip for mixer

1 bowl scraper - long handle

1 sifter

1 solid mixing spoon

Note: Put 20-qt. mixer bowl on mixer

Tray No. 2 - Meat-Potatoburgers

5 lb. ground beef in bowl

2-1/2 lb. ground pork in bowl

5 lb. 2 oz. finely chopped potatoes in gallon measure

1 lb. 8 oz. chopped onion in bowl

1/4 cup salt in custard cup

1 flat beater for mixer

Table and Tray Set-up - Cont'd.

Tray No. 2 - Cont'd.

1 bowl scraper - long handle

1 No. 8 scoop

1 12 x 20 x 2 inch pan

1 dish towel for drying potatoes

1 French knife

1 cutting board

} These 3 items are to be included
on the tray only if Section II-B4 of
this demonstration is used. (Page 12)

Tray No. 3 - Meat-Potatoburgers

Tomato sauce in double boiler

1 bowl scraper - short handle

1 solid mixing spoon

1 8-ounce ladle

Tray No. 4 - Brownie Mix

Recipe

1 20-qt. mixer bowl for mixer

1 wire whip for mixer

1 lb. all-purpose flour in bowl

6 oz. nonfat dry milk in bowl

2 lb. sugar in bowl

4 oz. cocoa in custard cup

4-1/2 tsp. baking powder in custard cup

1 tbsp. salt in custard cup

1 bowl scraper - long handle

(All dry ingredients could be put in one bowl to save time)

Table and Tray Set-up - Cont'd.

Tray No. 5 - Reconstituting Dried Eggs

Notes

Small mixing bowl

French whip - small

1 spatula

2 cups water

1 tablespoon

Waxed paper

Tray No. 6 - Brownies

Recipe

1 solid mixing spoon

1 bowl scraper - short handle

1 bowl scraper - long handle

2-1/2 cups water

1 tbsp. vanilla in custard cup

12 oz. melted butter or margarine in small sauce pan

8 oz. chopped nuts or raisins

1 flat beater for mixer

1 15 x 24 x 1 inch sheet pan

Tray No. 7

1 plastic lid for No. 10 can

Green peppers in bowl

Parsley in bowl

WORK TO BE DONE IN ADVANCE OF DEMONSTRATION

Check food against market order .

Check equipment against equipment list .

Mark baking pans and bowls to show weights .

Check mechanical equipment to make sure that it is in working order .

Assemble and measure ingredients for tomato sauce for meat-potatoburgers .

Prepare green pepper and parsley garnishes (refrigerate) .

Set up demonstration table .

Set up tray No. 1.

Set up tray No. 2.

Set up tray No. 3.

Set up tray No. 4.

Set up tray No. 5.

Set up tray No. 6.

Set up tray No. 7.

Line up trays on set-up table in order of their use.

Preheat ovens.

Check seating arrangements.

Cook tomato sauce for meat-potatoburgers just before start of demonstration.

Put butter in pan to melt .

ASSIGNMENT OF WORK FOR ADVANCE PREPARATION

Demonstrator

Check equipment and food against the equipment list and market order.

Mark weights on baking pans and bowls.

Prepare green pepper and parsley garnishes (refrigerate).

Set up demonstration table.

Set up tray No. 1.

Set up tray No. 4.

Set up tray No. 5.

Set up tray No. 7.

Line up trays on set-up table in order of their use.

Check mechanical equipment to make sure that it is in working order.

Double check arrangement of facilities for ease of demonstration.

Assistant

Assist the demonstrator in checking the equipment and food lists.

Assist demonstrator in marking weights on baking pans and bowls.

Set up tray No. 2.

Set up tray No. 3.

Set up tray No. 6.

Preheat ovens.

Check seating arrangements.

Assemble, measure ingredients, and prepare tomato sauce.

Put butter in pan to melt.

SUGGESTED OUTLINE OF POINTS TO COVER
DURING THE DRIED EGG DEMONSTRATION

Time - Approximately 1-1/2 hours

DEMONSTRATOR

ASSISTANT

I. Introduction

- A. Describe dried eggs.
- B. Explain the word "stabilized."
- C. Read and discuss label on No. 10 can.
 - 1 No. 10 can contains 3 lb. dried whole egg and is equal to 100 shell eggs.

- D. Discuss distribution guide.
 - 1 No. 10 can provides approximately 1 month's supply for 20 children at 2-1/2 oz. or 5 eggs per child for a month.

Take tray No. 1 to demonstration table.

II. Reconstitution - 2 methods (liquid and dry mix)

- A. Explain "liquid" method.
 - 1. Reconstitute only the amount of egg needed.
 - 2. Weigh 6 oz. (or sift and measure 2 cups) dried egg for meat-potatoburgers.
 - 3. Stress importance of weighing.
 - 4. Put water in mixer bowl (on mixer).
 - 5. Sift (for best results) dried egg over water.
 - 6. Insert wire whip and raise bowl to position.
 - 7. Start mixer and reconstitute at low speed until free of lumps.

Stir tomato sauce.

Take charge of mixer until dried egg is reconstituted. (If necessary, stop mixer once and scrape down bowl.)

DEMONSTRATOR

ASSISTANT

- B. During reconstitution mention:
1. Card A-6 in USDA card file.
 2. Food value of dried eggs.
 3. Uses for dried eggs.
 - a. Thoroughly cooked dishes, etc.
 - b. Fill pans not more than 2-1/2 inches.
 - c. Follow cooking instructions carefully.
 - (4. How to chop potatoes with French knife, if desired.)
- C. Stop mixer, lower bowl. Unlock wire whip and remove whip and bowl. Place whip on tray. Show reconstituted dried eggs to audience.
- D. Put bowl on mixer.
1. Add meat, potatoes, onions, salt.
 2. Insert flat beater and raise bowl to position.
 3. Start mixer on low speed and mix slightly.
 4. Stop mixer and scrape down bowl.
 5. Start mixer and continue until well mixed.
- E. Stop mixer, lower bowl. Unlock flat beater and remove beater and bowl. Place beater on tray. Show mixture to audience.
- F. Portion out 1 pan of meat-potatoburgers.
1. Use standard No. 8 scoop.
 2. Place meat-potatoburgers close together.

Take tray No. 2 to demonstration table. Remove Tray No. 1.

DEMONSTRATOR

ASSISTANT

- G. Tell how tomato sauce is made.
 - 1. Use of USDA-donated flour.
 - 2. Portion out over meat-potato-burgers.
- H. Questions and answers.

III. "Break".

IV. Explain "dry mix" reconstitution method.

- A. Weigh 3 oz. (or sift and measure 1 cup) dried eggs for brownie mix and put into mixer bowl.

Add:

- 1. USDA-donated flour.
- 2. USDA-donated dry milk.
- 3. Sugar, cocoa, baking powder, salt.
- B. Insert wire whip and raise bowl to position.
- C. Start mixer on low speed to blend for 15 minutes.
- D. Discussion for 15 minutes.
 - 1. Economy of using homemade mixes.
 - 2. Use of USDA-donated foods.
 - 3. Have two women play back weighing and measuring techniques. Have one weigh equivalent of 1 egg and the other measure same. Compare. Have a third person reconstitute by hand the equivalent of 1 egg. Show audience results.

Take tray No. 3 to demonstration table. Remove tray No. 2. Transfer meat from mixer bowl to pan and wash bowl and beater. Return bowl to mixer. Complete pan No. 2 with meat-potatoburgers.

Take tray No. 4 to demonstration table. Remove tray No. 3. Cover pan No. 2 with sauce and put both pans in oven to bake.

Take tray No. 5 to demonstration table. Remove Tray No. 4.

Take charge of mixer. Scrape down bowl twice.

Melt butter.

Grease sheet pans.

DEMONSTRATOR

ASSISTANT

4. Questions and answers on dried eggs.

E. Stop mixer, lower bowl. Unlock wire whip and remove whip and bowl. Place whip on tray. Show mixture to audience.

F. Return bowl to mixer.

Add:

1. Water, vanilla, melted butter (USDA-donated), chopped nuts or raisins.

2. Insert flat beater and raise bowl to position.

3. Start mixer and mix thoroughly about 1 minute.

G. Stop mixer, lower bowl. Unlock flat beater and remove beater and bowl. Place beater on tray. Show completed mixture to audience.

H. Pour batter into pan.

1. Spread batter evenly.
(Caution: Mixture containing dried eggs should never be more than 2-1/2 inches deep.)

V. Storage of dried eggs.

A. Show suitable containers with tight fitting lids.

B. Stress importance of "air tight" aspect.

C. Stress storage of mix in refrigerator.

D. Stress importance of storing dried egg in refrigerator.

Take tray No. 6 to demonstration table. Remove tray No. 5.

Stop mixer and scrape down bowl once.

Put brownies in oven.

Take tray No. 7 to demonstration table. Remove tray No. 6.

VI. Summary

A. Reconstitution:

1. Review the 2 methods.

2. Stress mixing only what is needed at one time.

- B. Uses

1. Stress use of dried eggs in thoroughly cooked dishes.
2. Discuss reason for filling pans not more than 2-1/2 inches deep.
3. Stress not using dried eggs in uncooked dishes.
4. Emphasize importance of following the recipe cooking instructions carefully.
5. Mention ease of use.

C. Storage

1. Refrigerate dried eggs.
2. Use of air tight containers.
3. Storage in No. 10 can before and after opening.
4. Storage of dry mix in air tight container and in refrigerator.
5. Ease of storing.

