

A COST STUDY ON PIE FILLINGS

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This is to certify that the

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TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
The Problem	1
Definition of Terms Used	2
REVIEW OF THE LITERATURE	3
Cost Studies of Pie Fillings	3
Food Costs	3
Techniques and Recipes in Preparations	5
METHODS OF PROCEDURE	6
Selection of Recipes	6
Preparation of Recipes	6
Techniques Used in Judging	7
DISCUSSION OF RESULTS	9
SUMMARY AND CONCLUSIONS	23
Summary	23
Conclusions	24
LITERATURE CITED	25
APPENDIX	28
Food Costs as of October 1, 1949	28
Rating Sheet Used for Pie Judging	29
Basic Plain Pastry	30
Apple Pie	31
Apricot Pie	32
Apricot Chiffon Pie	33

	PAGE
Banana Cream Pie	34
Banana Orange Chiffon Pie	35
Blackberry Pie	36
Blackberry Glace Pie	37
Blueberry Pie	38
Blueberry Glace Pie	39
Boysenberry Pie	40
Boysenberry Glace Pie	41
Butterscotch Pie	42
Cherry Pie (Canned)	43
Cherry Pie (Frozen)	44
Chocolate Chiffon Pie	45
Chocolate Cream Pie	46
Cream Pie	47
Custard Pie	48
Grape Pie	49
Lemon Butter Meringue Pie	50
Lemon Chiffon Pie (Eggwhites)	51
Lemon Chiffon Pie (Gelatin)	52
Lemon Cream Pie	53
Lemon Meringue Pie (Cornstarch)	54
Lemon Meringue Pie (Flour)	55
Lemon Meringue Pie (Condensed Milk)	56
Mince Pie (Canned)	57
Orange Chiffon Pie	58
Peach Pie	59

	PAGE
Peach Chiffon Pie	60
Peach Cream Pie	61
Peach Custard Pie	62
Peach Glace Pie	63
Peach Pie (Norwegian)	64
Pear and Pineapple Pie	65
Pecan Pie	66
Pineapple Pie	67
Plum Pie	68
Plum Custard Pie	69
Prune Pie	70
Prune Nut Chiffon Pie	71
Prune Nut Cream Pie	72
Pumpkin Pie	73
Pumpkin Chiffon Pie	74
Raisin Pie	75
Raisin Butter Cream Pie	76
Raisin Lemon Pie	77
Raspberry Pie	78
Raspberry (or Strawberry Chiffon Pie)	79
Raspberry Glace Pie	80
Rhubarb Pie	81
Rhubarb Custard Pie	82
Rhubarb and Pineapple Pie	83
Strawberry Glace Pie	84

LIST OF TABLES

TABLE		PAGE
I	Cost per Portion of Fruit Filled Pies	11
II	Cost per Portion of Cream Pies	13
III	Cost per Portion of Chiffon Pies	14
IV	Cost per Portion of Custard Pies	15
V	Cost per Portion of Glace Fruit Pies	16
VI	Cost per Portion of Miscellaneous Pies	16
VII	Comparative Profit or Loss per Portion of 9 Inch Pies at Two Levels of Mark-up: 15¢ (40% Food Cost) and 12¢ (50% Food Cost)	19
VIII	Cost per Portion of 9 Inch Pies Cut in 7 and in 8 Pieces	21
IX	Range In Cost Per 7-cut Portion of Pies and Relationship of Cost To Selling Price at 15 cents	22
X	Food Costs As of October 1949 M.S.C. Food Stores	28

LIST OF FIGURES

FIGURE	PAGE
I Average Cost Per Portion of Pies of Various Types	20

INTRODUCTION

The Problem

Statement of the problem. The purpose of this study was to select and evaluate by Test Kitchen methods some basic recipes for pie fillings which could be used for commercial purposes. Using recipes which were judged desirable by a taste panel (a) cost studies were to be made to determine which fillings were desirable from the standpoint of cost; (b) selling prices were to be calculated on the basis of approved levels of mark-up. Approved recipes were to be presented in the appendix in their final form.

Importance of the study. A prominent shortening manufacturer's research laboratories published a booklet in which it was stated that about three fourths of the desserts served to men in hotels and restaurants are pies (1). About one fourth of the American women choose pie. These statistics indicate that pie is a very important item in commercial food service.

There is an obvious lack of information as to comparative costs of pie fillings. The restaurant trade seems to stick to a few traditional varieties of pie and charge a traditional price. On what do they base their selling price? Are not some pies much less costly to make than others and could they not be sold at a lower price and still meet the prescribed level of mark-up? It was felt that a study of recipes and costs would throw some light on this problem and would be a real benefit to the hotel, restaurant and dormitory food service manager.

Definition of Terms

Mark-up. Theoretical mark-up is the amount by which the actual cost of the food is increased to obtain the desired selling price. Thus, a piece of pie costing 6.0 cents to make, at a 50% mark-up would be sold for 12 cents. This mark-up does not indicate profit, for out of the additional 6.0 cents must come labor, overhead and all other costs entailed in the production of that piece of pie. Each commercial food service has an established level of mark-up determined by the type of establishment and the policy of the management. A school cafeteria may have a low mark-up if it operates with a very small staff of employees and pays no rent. A hotel offering elaborate service would have a very high mark-up.

Raw food cost. This cost is the actual money value of the food materials used to make a product. This is determined by the amount of food used in the recipe and the prevailing market price. In the case of hotels, restaurants and dormitories this is usually the prevailing wholesale market price.

REVIEW OF THE LITERATURE

Cost Studies Of Pie Fillings

Almost nothing is available in the literature on pies and pie fillings in regard to cost studies. Much has been written on the use of various fruits and techniques used in their preservation and treatment to obtain optimum quality. Ramsland (2) in her study on the use of several types of peaches in institution pie making was mainly concerned with the quality of fruit as it affected the finished product and the labor involved in producing it. She found that the Michigan types of canned and frozen peaches were cheaper than California varieties and that Michigan canned peaches compared favorably with California varieties in quality. Dried peaches were lowest in material and labor costs but took longest to prepare and were least desirable from the standpoint of acceptability. Canned peach pies had the shortest preparation time but were more costly than dried peach pies.

Food Costs

George L. Wenzel, considered by most food service operators, both commercial and otherwise, to be one of the foremost authorities on food cost control, says, (3)

"A good food cost is from 40% to 43%; a high food cost is from 48% to 50%; a dangerous food cost is one under 38% or one over 55%."

There can be some variation in the food cost depending upon the type of institution being operated. Wenzel suggests a 60% food cost for industrial cafeterias where rent, light, fuel and sometimes equipment is

free and where no profit is expected (4). The food cost in public school cafeterias, which are under similar subsidies, can go as high as 75%.

In the successful commercial operation 42 cents out of every income dollar should be allocated to the cost of food. Wenzel has set up the following guide for menu pricing: (5)

<u>Trimmings:</u>	<u>Cost Range</u>		
Appetizer	2¢	to	8¢
Salad	2¢	to	8¢
Vegetable	2¢	to	8¢
Potato	2¢	to	5¢
Bread - Butter	2¢	to	5¢
Dessert	2¢	to	10¢
Beverage	3¢	to	6¢
	<hr/>		
Total for trimmings	15¢	to	50¢
	<hr/>		
Entree	10¢	to	40¢
	<hr/>		
TOTAL RAW FOOD COST RANGE	25¢	to	90¢

To the inexperienced person this 42% food cost might, at first glance, indicate a high profit. However, some other items to come out of the food income dollar are: payroll 25%, operating 10.6%, rent, water, heat 6%, employees meals 4%, depreciation 3%, repairs 2.2%, social security 1.2% (4). This leaves a profit of 6%. Wenzel estimates that 90% of the operators who keep their food cost within this 40-43% bracket show a profit. He states further that 30% of restaurants show a yearly loss, 30% make less than 5% profit, 40% make 5% or more (4).

Techniques and Recipes in Preparations

Belle Lowe (6) gives the standard formula for proportion of ingredients used in pastry making. This is: one part of shortening to three parts of flour. This has been accepted by most authorities as the standard formula.

De Gouy (7) advised the use of pastry flour rather than all-purpose flour in order to get the best results in pastry making. He also gave the following simple and concise chart of directions for oven temperatures:

For pie shells.	450°F. for 15 minutes	
For tart shells	450°F. for 10-15	"
For berry or fruit pies	450°F. for 10-15	"
(canned or fresh) then . . .	350°F. for 20-30	"
For custard, pumpkin, etc..	450°F. for 10-15	"
then . . .	350°F. for 20-25	"
For dried fruits.	425-450°F. for 10-15	"
then . . .	350°F. for 25-30	"

De Gouy also suggested that the best weights of pastry before baking are 6 ounces for the bottom crust and $5\frac{1}{2}$ ounces for the top crust.

The Navy's authorities on baking recommended that the sugar content of fruit pies be varied according to the tartness of the fruit (8). They also specified that a good fruit pie should have the minimum amount of thickening agent so that it would "run" slightly when cut.

METHODS OF PROCEDURE

With the exception of very large institutions, most of our commercial food service establishments prepare pies in amounts that can easily be a simple multiple of a home size recipe. There are two reasons for this. One is that most restaurants serve from two to four varieties of pie daily, therefore they do not prepare a large quantity of any one kind. Another reason is that pies are difficult to hold over for later serving and most managers prefer to run a little short of the demand rather than to overestimate it. Therefore it was felt that for this study recipes of one, two and three pies would be adequate. Fifteen pies of any one variety would be ample for the average restaurant. This number or any lower number is a simple multiple of these three variations of the recipe and would in no way make the recipe inaccurate. Should amounts of 50, 75 or 100 pies be desired it is recommended that further testing of these recipes be carried out as a check on accuracy of proportion increases.

Selection of recipes. Recipes were selected from many sources: popular cookbooks, magazines, commercial publications, quantity food service manuals, and favorite personal recipes. As many variations as possible of each recipe were chosen.

Preparation of recipes. These recipes were then prepared in the Test Kitchen at Yakeley Hall and rated by a panel of judges. This preliminary test served the purpose of selecting a basic recipe. If no satisfactory recipe was found, the best of the lot was revised until it proved to be

satisfactory in the opinion of the judges. Then the basic recipe was varied in as many ways as possible. For example, after a basic pumpkin pie recipe was found, it was retested using canned, fresh field pumpkin, fresh pie pumpkin, squash and yams. It was also tested using undiluted evaporated milk as compared with fresh whole milk. All recipes were tested in this manner using all the variations that it was possible to get.

Since the recipes used were taken from approved sources, replications of all recipes were not considered necessary. Only in those cases where the trained judges requested replications or where further checks against additional recipes was desired was this done.

Techniques used in judging. Judges for these tests were selected at random since it was decided that a fairly representative cross section of the public was desirable. Some were students; others were staff or faculty members, dormitory food service employees or supervisors. An attempt was made to get as many men as women and as many untrained as trained foods personnel. No attempt was made to have the same judges present at each test. Some were present at many of the tests. The number of judges varied from eight to twenty-four.

Scorecards were of a very simple type with no ratings or standards specified. Judging was purely a personal opinion rating. Comments were encouraged but not required. The only specification was a first and second choice.

Whenever possible it was desirable to keep the number of samples down to four or five. Occasionally, when time was limited, six or seven samples were necessary. Judges were instructed to refrain from discussion until after their votes were recorded. They were given water to drink between

bites to clear their mouths.

The decision of these judges determined the selection of the recipe to be used. The recipe having the largest number of first choice votes was used. Occasionally, when the results were very close, both recipes were included in the study.

DISCUSSION OF RESULTS

Methods

In the preliminary testing of pastry recipes to select one of the highest quality, it was found that the standard formula proved most successful: 6 cups sifted pastry flour, 2 cups lard, $2\frac{1}{4}$ teaspoons salt, $\frac{3}{4}$ cup of milk. Lard was found to be more desirable than hydrogenated fat from the standpoint both of flavor and texture. The use of whole milk rather than water resulted in a pastry that browned in slightly less time. It also imparted a faintly sweeter flavor. Pastry flour was used very successfully throughout. Chilling the pastry for about an hour or storing it over night wrapped in wax paper in the refrigerator resulted in easy handling. The measuring of ingredients was used rather than weighing since it was thought that this procedure would most likely be followed by a majority of the restaurant or resort bakers. Soft lard was measured and placed in the refrigerator for chilling before use. The amount of pastry needed for a crust on a nine inch pie was approximately $6\frac{1}{2}$ ounces. The baking temperatures found to be most desirable were those recommended by De Gouy (7).

Some 300 pies were made from approximately 170 recipes. Of these, 54 recipes were selected as suitable for use in dormitory or commercial food services. Using these 54 recipes and their variations, totaling 79 in all, cost computations were made on the basis of prevailing prices charged to the food service at Yakeley Hall as of October 1949 (see table X in appendix). These 54 approved recipes appear in the appendix beginning on page 30.

Fillings

Fruit fillings for two-crust pies. Thirty-five recipes were selected using fresh, dried, canned, treated and frozen fruit. Since the study was made during the late fall and winter months, fresh berries and peaches were not available. More work could have been done on canned berries but was considered impractical since they were not generally used by dormitory or commercial food services.

The average cost of pies of this type was 5.83 cents per 7-cut portion, which was slightly below the average for the entire study (6.16 cents). (See table I.) The lowest cost in the group was fresh apple pie at 2.28 cents per 7-cut portion while the highest was canned boysenberry pie at 14.12 cents. It should be noted that in the fall of 1949 the apple harvest of Michigan was exceptionally high. This accounted largely for the low cost of fresh apple pie. At a selling price of 15 cents per 7-cut portion, 57.1% of the pies in this group were at or below the 40% food cost level.

Frozen fruit fillings appeared to be less costly than canned fruit in most cases. For rhubarb pie, frozen fruit was lower in cost than fresh. This was due to the fact that fresh rhubarb was purchased very early in the season. During the height of the season it would appear that fresh rhubarb would be advisable where labor is not too great a factor.

The findings seemed to indicate that stewed dried prunes are more economical than canned dried prunes used for pies, particularly since there is no appreciable increase in labor involved.

Treated apples were next to fresh apples in cost. Since this study did not consider labor costs, no conclusive evidence could be shown but it

TABLE I

Cost Per Portion of Fruit Filled Pies (9-inch, 2 crust-lattice or solid)

NAME	COST PER PIE Cents	PER PORTION (1/7) Cents	PER PORTION (1/8) Cents
Apple-- Fresh	15.96	02.28	02.00
Treated	22.76	03.25	02.84
Dried	24.62	03.52	03.08
Frozen	35.14	05.02	04.39
Canned	35.72	05.10	04.46
Apricot-- Dried	27.79	03.97	03.47
Canned	32.29	04.61	04.04
Blackberry - - Frozen	60.35	08.62	07.54
Blueberry- - Frozen	65.16	09.31	08.15
Boysenberry- - Frozen	44.21	06.32	05.53
*Canned	98.81	14.12	12.35
Cherry- - Canned	59.29	08.47	07.41
Frozen	30.51	04.36	03.81
Grape-- Fresh Concord	29.46	04.21	03.68
Mince-- Canned	39.32	05.62	04.92
*Dried	30.99	04.43	03.87
Peach-- Frozen	44.22	06.32	05.53
*Dried	62.72	08.96	07.84
Canned	43.81	06.26	05.48
Pear and Pineapple	34.80	04.97	04.35
Pineapple	32.48	04.64	04.06
Plum-- Fresh	25.27	03.61	03.16
Canned	41.22	05.89	05.15
Plum Custard- - Fresh	27.79	03.97	03.47
Prune-- Stewed Dried	23.25	03.32	02.91
Canned Dried (Nectarized)	32.89	04.70	04.11
Raisin-- Seedless	27.01	03.86	03.38
Seedless	43.93	06.28	05.49
Raspberry-- Frozen	57.64	08.23	07.21
Rhubarb-- Frozen	39.16	05.59	04.89
**Fresh	43.51	06.22	05.44
Rhubarb Custard-- Frozen	48.22	06.89	06.03
**Fresh	52.57	07.51	06.57
Rhubarb Pineapple-- Frozen	49.12	07.02	06.14
**Fresh	46.25	06.61	05.78
	Total 35 pies	AV. 05.83	AV. 05.10

* Retail price.

** This cost was based on a February price of 21 cents per pound.

would appear that this type of apple would be even more desirable than fresh apples for use in large food service establishments. These apples were delivered by the processor peeled, sliced and ready for use. The treatment prevented discoloration so that they could be stored in a refrigerator at 40°F. for several days with no apparent change in quality. In the test using fresh, frozen, dried, treated and canned apples the judges selected treated and fresh apples as being most desirable:

<u>Type of apple</u>	<u>First choice</u>	<u>Second choice</u>
Canned	0	1
Dried	0	0
Fresh	10	11
Frozen	2	4
Treated	11	7

Cream Pies. The average cost of pies in this group was 5.62 cents per 7-cut portion. Of the 15 recipes selected in this group 10, or 67%, had food costs of 40% or below at a selling price of 15 cents. In this group the cost varied with the richness of the recipe. Butter, cream or nuts affected the price considerable depending upon the amount used. It should be noted here that one of the commercial trade's most popular pies, lemon, was below the 40% level.

TABLE II

Cost Per Portion of Cream Pies (9 inch, one crust)

NAME	COST PER PIE Cents	PER PORTION (1/7) Cents	PER PORTION (1/8) Cents
Plain Cream	32.37	04.62	04.05
Banana Cream	48.80	06.97	06.10
Butterscotch	29.13	04.16	03.64
Chocolate	30.19	04.31	03.77
Peach Cream	42.07	06.01	05.26
Pineapple Cream	41.45	05.92	05.18
Raisin Butter Cream (seedless)	50.86	07.27	06.36
Lemon Cream	27.31	03.90	03.41
Lemon Meringue (Cornstarch)	39.33	05.62	04.92
Lemon Meringue (Flour)	25.78	03.68	03.22
Lemon Meringue (Cond. Milk)	38.23	05.46	04.78
Lemon Butter Meringue	54.76	07.82	06.85
Prune Nut Cream (Canned)	50.62	07.23	06.33
Stewed Dried	40.98	05.85	05.12
	Total 15 pies	AV. 05.62	AV. 04.92

Chiffon Pies. A total of 13 recipes were selected for this group which had an average cost of 7.20 cents per 7-cut portion. Only 4, or 30.7%, were in or below the 40% food cost level. Chiffon pies were divided into two classes-- those made with whipped cream and those made with beaten egg whites. Those made with whipped cream are most likely to be in the higher cost brackets.

TABLE III

Cost Per Portion of Chiffon Pies (9 inch, one crust)

NAME	COST PER PIE Cents	PER PORTION (1/7) Cents	PER PORTION (1/8) Cents
Apricot-- Canned	62.28	08.09	07.79
Dried	55.00	07.86	06.88
Chocolate	45.46	06.49	05.68
Banana Orange	56.97	08.14	07.12
Lemon-- with egg	33.15	04.74	04.14
with gelatin	35.32	05.05	04.42
Orange	47.50	06.79	05.94
Peach-- Canned	64.26	09.18	08.03
Pumpkin-- Canned	34.63	04.95	04.33
Prune-- Canned dried	50.22	07.17	06.28
Stewed dried	40.58	05.80	05.07
Raspberry-- Frozen	61.00	08.71	07.63
Strawberry-- Frozen	68.50	09.79	08.56
	Total 15 pies	AV. 07.20	AV. 06.30

Custard Pies. Only three recipes were selected for this group. All of these fall at or below the 40% food cost level-- the average cost being 4.80 cents. This evidence should be encouraging to the food service operator since pumpkin and custard are both popular items on the dessert list. Prices of these pies will fluctuate according to the cost of eggs. For prices used in this study refer to table X in the appendix.

TABLE IV

Cost Per Portion of Custard Pies (9 inch, one crust)

NAME	COST PER PIE Cents	PER PORTION (1/7) Cents	PER PORTION (1/8) Cents
Plain Custard	28.22	04.03	03.53
Pumpkin-- Fresh	29.13	04.16	03.64
Canned	29.95	04.28	03.74
Squash-- Fresh	33.19	04.74	04.15
Squash-- Frozen	33.00	04.71	04.13
Sweet Potato (Yam)	39.86	05.69	04.98
Peach Custard-- Canned	42.02	06.00	05.25
	Total 7 pies	AV. 04.80	AV. 04.20

Glace Fruit Pies. These pies all were above the 40% cost level mainly because of the whipped cream topping and the fact that very little extender was used in the fruit filling. The average cost was 8.63 cents per 7-cut portion. Frozen or fresh fruit, never canned or dried, was used since the reputation of these pies depends upon their fresh flavor and character. The use of these pies is usually limited to special parties or banquets where a higher rate is charged, or to special occasions where another item can help bear the cost.

TABLE V

Cost Per Portion of Glace Fruit Pies (9 inch, one crust)

NAME	COST PER PIE Cents	PER PORTION (1/7) Cents	PER PORTION (1/8) Cents
Blackberry-- Frozen	56.70	08.10	07.09
Blueberry-- Frozen	86.77	12.40	10.85
Boysenberry- Frozen	45.75	06.54	05.72
Peach-- Frozen	54.10	07.73	06.76
Raspberry-- Frozen	54.88	07.84	06.86
Strawberry-- Frozen	64.03	09.15	08.00
	Total 6 pies	AV. 08.63	AV. 08.05

Miscellaneous Pies. These three pies were not classed in any of the above groups. Only one, Raisin Lemon Meringue fell into the 40% food cost group. The Peach Pie had a whipped cream topping and contained nuts which accounted for its higher cost. Pecan pie could fluctuate considerably with the price of eggs and pecans. The average cost of these three was 6.60 cents per 7-cut portion.

TABLE VI

Cost Per Portion of Miscellaneous Pies (9 inch, one crust)

NAME	COST PER PIE Cents	PER PORTION (1/7) Cents	PER PORTION (1/8) Cents
Peach Pie-- Norwegian (canned)	49.19	07.03	06.15
Pecan	56.85	08.12	07.11
Raisin Lemon Meringue (seedless)	32.61	04.66	04.08
	Total 3 pies	AV. 06.60	AV. 05.78

Costs

Table VII shows costs per 7-cut portion according to alphabetical order within the six groupings used in this study. From the average cost of the entire study, 6.16 cents (6 cents in round numbers), two levels of mark-up were used in determining profit and loss for each individual pie. These mark-ups, $2\frac{1}{2}$ times cost (40% food cost) and 2 times cost (50% food cost), represent those most commonly used in the commercial food trade. At these two selling prices, 15 and 12 cents per portion respectively, computations were made to show how far short or how far over each individual mark-up came from the selling price. This table can be of great value to the food service operator in permitting a balance of costs. Thus a raspberry pie, which came short by 5.58 cents of meeting a 40% food cost, could be used on the menu together with a lemon or plum pie which came over the prescribed level by approximately the same amount. This balancing of costs can be accomplished in the same meal when a selective menu is used as in a commercial cafeteria or college union. It is accomplished over a given period of time (weekly) in a dormitory where no selection of desserts is permitted.

Table VIII shows the alphabetical order of pies in this study with portion costs for 7 cuts and 8 cuts. Most commercial food services use a 7-cut portion and residence halls, particularly for women, use the 8-cut portion.

Table IX shows the range of costs (7-cut portions) for all the pies included in this study with averages for the lower, middle and upper thirds. The actual food cost percentage for each individual pie was

calculated on the basis of a 15 cent selling price for a 7-cut portion. It can be readily observed that about one third of the pies studied were in the cost bracket of the more popular luncheon entrees which was somewhere between 7 and 14 cents as determined by the experimental kitchen in Yakeley Hall. This arrangement of food costs can be of value to the food service operator in showing her at a glance which pies she should avoid, or use infrequently, if she expects to maintain her prescribed food cost.

Figure I shows the average cost of each type of pie used in the study and its relation to the average for the entire study.

The range of costs for acceptable lemon pies as shown on Table VII indicates the importance of knowing food costs of recipes used.

TABLE VII

THEORETICAL PROFIT OR LOSS PER PORTION OF 9" PIE AT TWO LEVELS OF MARK-UP:
(40% FOOD COSTS) (50% FOOD COSTS)

NAME OF PIE	COST PER PORTION (1/7) Cents	40% FOOD COST <u>SELLING PRICE 15¢</u>		50% FOOD COST <u>SELLING PRICE 12¢</u>	
		PROFIT* Cents	LOSS** Cents	PROFIT* Cents	LOSS** Cents
<u>TWO CRUST FRUIT PIES</u>					
Apple, Fresh	02.28	09.30		07.44	
Treated	03.25	06.87		05.50	
Dried	03.52	06.20		04.96	
Frozen	05.02	02.45		01.96	
Canned	05.10	02.25		01.80	
Apricot, Dried	03.97	05.07		04.06	
Canned	04.61	03.47		02.78	
Blackberry, Frozen	08.62		06.55		05.24
Blueberry, Frozen	09.31		08.28		06.62
Boysenberry, Frozen	06.32		00.80		00.64
Canned***	14.12		20.30		16.24
Cherry, Canned	08.47		06.18		04.94
Frozen	04.36	04.10		03.28	
Grape, Fresh Concord	04.21	04.47		03.58	
Mince, Canned	05.62	00.95		00.76	
Dried***	04.43	03.92		03.14	
Peach, Frozen	06.32		00.80		00.64
Canned	06.26		00.65		00.52
Dried ***	08.96		07.40		05.92
Pear and Pineapple	04.97	02.57		02.06	
Pineapple	04.64	03.40		02.72	
Plum, Fresh	03.61	05.97		04.78	
Canned	05.89	00.27		00.22	
Plum Custard, Fresh	03.97	05.07		04.06	
Prune, Stewed Dried	03.32	06.70		05.36	
Canned Dried	04.70	03.25		02.60	
Raisin, Seedless	03.86	05.35		04.28	
Seeded***	06.28		00.70		00.56
Raspberry, Frozen	08.23		05.58		04.46
Rhubarb, Frozen	05.59	01.52		00.82	
Fresh****	06.22		00.55		00.44
Rhubarb Custard, Frozen	06.89		02.23		01.78
Fresh****	07.51		03.78		03.02
Rhubarb Pineapple, Frozen	07.02		02.55		02.04
Fresh****	06.61		01.53		01.22

TABLE VII (Continued)

THEORETICAL PROFIT OR LOSS PER PORTION OF 9" PIE AT TWO LEVELS OF MARK-UP:
(40% FOOD COSTS) (50% FOOD COSTS)

NAME OF PIE	COST PER PORTION (1/7) Cents	40% FOOD COST SELLING PRICE 15¢		50% FOOD COST SELLING PRICE 12¢	
		PROFIT* Cents	LOSS** Cents	PROFIT* Cents	LOSS** Cents
<u>ONE CRUST CREAM PIES</u>					
Plain Cream	04.62	03.45		02.76	
Banana Cream	06.97		02.43		01.94
Butterscotch	04.16	04.60		03.68	
Chocolate	04.31	04.22		03.38	
Coconut	05.42	01.45		01.16	
Peach Cream	06.01		00.03		00.02
Pineapple Cream	05.92	00.20		00.16	
Raisin Butter Cream, Seedless	07.27		03.18		02.54
Lemon Cream	03.90	05.25		04.20	
Lemon Meringue, Cornstarch	05.62	00.95		00.76	
Lemon Meringue, Flour	03.68	05.80		04.64	
Lemon Meringue, Condensed Milk	05.46	01.35		01.08	
Lemon Butter Meringue	07.82		04.55		03.64
Prune Nut Cream, Canned	07.23		03.08		02.46
Stewed Dried	05.85	00.37		00.30	
<u>ONE CRUST CHIFFON PIES</u>					
Apricot, Canned	08.90		07.25		05.80
Dried	07.86		04.65		03.72
Chocolate	06.49		01.23		00.98
Banana Orange	08.14		05.35		04.28
Lemon, With Egg	04.74	03.15		02.52	
With Gelatin	05.05	02.38		01.90	
Orange	06.79		01.98		01.58
Peach, Canned	09.18		07.95		06.36
Pumpkin, Canned	04.95	02.62		02.10	
Prune, Canned	07.17		02.93		02.34
Stewed Dried	05.80	00.50		00.40	
Raspberry, Frozen	08.71		06.78		05.42
Strawberry, Frozen	09.79		09.48		07.58

TABLE VII (Continued)

THEORETICAL PROFIT OR LOSS PER PORTION OF 9" PIE AT TWO LEVELS OF MARK-UP:
(40% FOOD COSTS) (50% FOOD COSTS)

NAME OF PIE	COST PER PORTION (1/7) Cents	40% FOOD COST SELLING PRICE 15¢		50% FOOD COST SELLING PRICE 12¢	
		PROFIT* Cents	LOSS** Cents	PROFIT* Cents	LOSS** Cents
<u>ONE CRUST CUSTARD PIES</u>					
Plain Custard	04.03	04.93		03.86	
Pumpkin, Fresh	04.16	04.60		03.68	
Canned	04.28	04.30		03.44	
Squash, Fresh	04.74	03.15		02.52	
Squash, Frozen	04.71	03.23		02.58	
Sweet Potato	05.69	00.78		00.62	
Peach Custard, Canned	06.00	-----	-----	-----	-----
<u>ONE CRUST GLACE FRUIT PIES</u>					
Blackberry, Frozen	08.10		05.25		04.20
Blueberry, Frozen	12.40		16.00		12.80
Boysenberry, Frozen	06.54		01.35		01.08
Peach, Frozen	07.73		04.33		03.46
Raspberry, Frozen	07.84		04.60		03.68
Strawberry, Frozen	09.15		07.88		06.30
<u>ONE CRUST MISCELLANEOUS PIES</u>					
Peach Pie Norwegian, Canned	07.03		02.58		02.06
Pecan	08.12		05.30		04.24
Raisin Lemon Meringue	04.66	03.35		02.68	

* Profit is calculated by subtracting the actual cost multiplied by $2\frac{1}{2}$ or 2 (the theoretical mark-up) from the actual selling price.

** Loss is calculated by subtracting the actual selling price from the theoretical mark-up.

*** Retail price— items not carried by the College Food Stores.

**** Fresh rhubarb price as of February 1950 (out of season).

FIGURE I

Average Cost Per Portion of Pies of Various Types

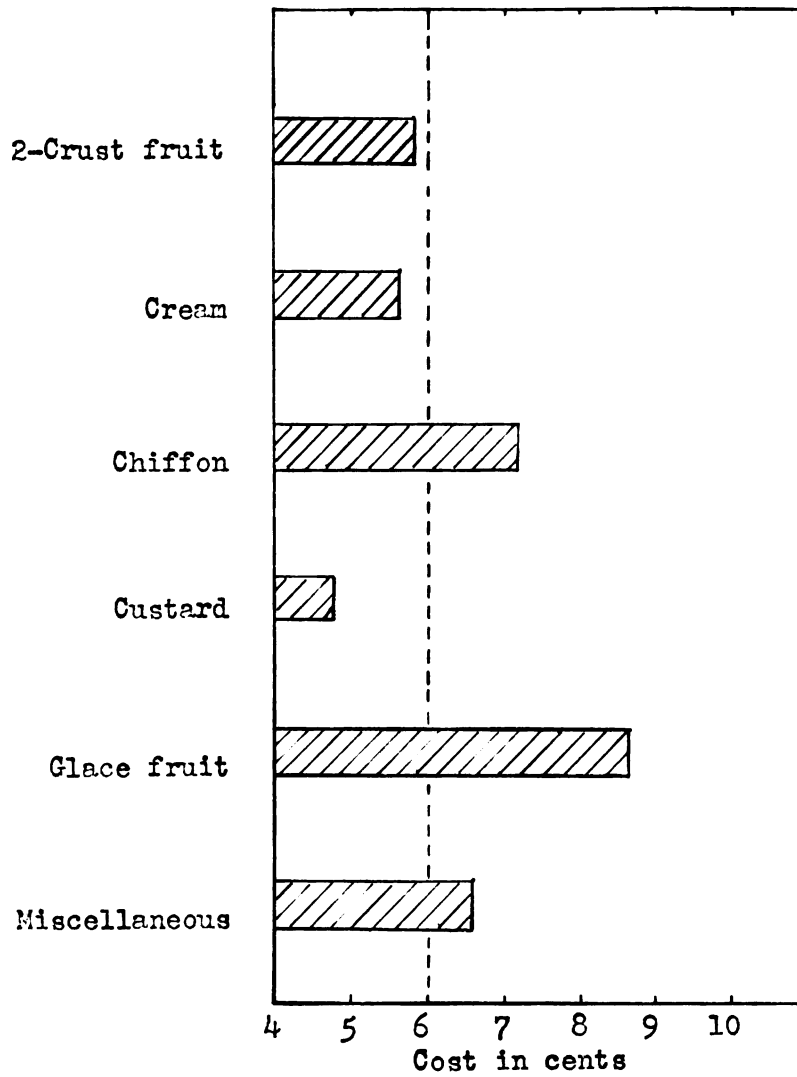


TABLE VIII

COST PER PORTION OF 9" PIES CUT IN 7 and 8 PIECES

NAME OF PIE	COST PER PORTION (7 CUTS) 9" PIE	COST PER PORTION (8 CUTS) 9" PIE
	Cents	Cents
Apple- Canned	05.10	04.46
Dried	03.52	03.08
Fresh	02.28	02.00
Frozen	05.02	04.39
Treated	03.25	02.84
Apricot- Canned	04.61	04.04
Dried	03.97	03.47
Apricot Chiffon- Canned	08.90	07.79
Dried	07.86	06.88
Banana Cream	06.97	06.10
Banana Orange Chiffon	08.14	07.12
Blackberry- Frozen	08.62	07.54
Blackberry Glace- Frozen	08.10	07.09
Blueberry- Frozen	09.31	08.15
Glace- Frozen	12.40	10.85
Boysenberry- Frozen	06.32	05.53
Canned	14.12	12.35
Boysenberry Glace- Frozen	06.54	08.72
Butterscotch Cream	04.16	03.64
Cherry- Canned	08.47	07.41
Frozen	04.36	03.81
Chocolate Chiffon	06.49	05.68
Chocolate Cream	04.31	03.77
Coconut Cream	05.42	04.74
Cream- Plain	04.62	04.05
Custard- Plain	04.03	03.53
Grape- Fresh Concord	04.21	03.68
Lemon Butter Meringue	07.82	06.85
Lemon Chiffon- Egg	04.74	04.14
Lemon Chiffon- Gelatin	05.05	04.42
Lemon Cream	03.90	03.41
Lemon Meringue- Cornstarch	05.62	04.92
Flour	03.68	03.22
Condensed Milk	05.46	04.78
Mince- Canned	05.62	04.92
Dried	04.43	03.87
Orange Chiffon	06.79	05.94
Peach- Canned	06.26	05.48
Dried	08.96	07.84
Frozen	06.32	05.53

TABLE VIII (Continued)
COST PER PORTION OF 9" PIES CUT IN 7 AND 8 PIECES

NAME OF PIE	COST PER PORTION (7 CUTS) 9" PIE	COST PER PORTION (8 CUTS) 9" PIE
	Cents	Cents
Peach Chiffon- Canned	09.18	08.03
Peach Cream- Canned	06.01	05.26
Peach Custard- Canned	06.00	05.25
Peach Glace- Frozen	07.73	06.76
Peach Pie Norwegian- Canned	07.03	06.15
Pear and Pineapple	04.97	04.35
Pecan	08.12	07.11
Pineapple	04.64	04.06
Pineapple Cream	05.92	05.18
Plum- Fresh	03.61	03.16
Canned	05.89	05.15
Plum Custard- Fresh	03.97	03.47
Prune- Stewed Dried	03.32	02.91
Canned Dried	04.70	04.11
Prune Chiffon- Canned	07.17	06.28
Stewed Dried	05.80	05.07
Prune Nut Cream- Canned	07.23	06.33
Stewed Dried	05.85	05.12
Pumpkin- Fresh	04.16	03.64
Canned	04.28	03.74
Squash- Fresh	04.74	04.15
Squash- Frozen	04.71	04.13
Sweet Potato (Yams)	05.69	04.98
Pumpkin Chiffon- Canned	04.95	04.33
Raisin- Seeded	06.28	05.49
Seedless	03.86	03.38
Raisin Butter Cream- Seedless	07.27	06.36
Raisin Lemon Meringue- Seedless	04.66	04.08
Raspberry- Frozen	08.23	07.21
Raspberry Chiffon- Frozen	08.71	07.63
Raspberry Glace- Frozen	07.84	06.86
Rhubarb- Fresh	06.22	05.44
Frozen	05.59	04.89
Rhubarb Custard- Fresh	07.51	06.57
Frozen	06.89	06.03
Rhubarb Pineapple- Fresh	06.61	05.78
Frozen	07.02	06.14
Strawberry Chiffon- Frozen	09.79	08.56
Strawberry Glace- Frozen	09.15	08.00
	AV.06.16	AV. 05.43

TABLE IX

COST PER PORTION OF PIES (7 CUTS) SHOWING RELATIONSHIP
OF COST TO SELLING PRICE AT 15 CENTS

NO.	NAME OF PIE	COST PER PORTION (1/7) Cents	RELATIONSHIP OF COST TO SELLING PRICE (at 15 cents
1.	Apple, Fresh	02.28	15.2%
2.	Apple, treated	03.25	21.7%
3.	Prune, Dried	03.32	22.1%
4.	Apple, Dried	03.52	23.5%
5.	Plum, Fresh	03.61	24.1%
6.	Lemon Meringue, Flour	03.68	24.5%
7.	Raisin, Seedless	03.86	25.7%
8.	Lemon Cream	03.90	26.0%
9.	Plum Custard, Fresh	03.97	26.5%
10.	Apricot, Dried	03.97	26.5%
11.	Plain Custard	04.03	26.9%
12.	Pumpkin, Fresh	04.16	27.7%
13.	Butterscotch	04.16	27.7%
14.	Concord Grape, Fresh	04.21	28.1%
15.	Pumpkin, Canned	04.28	28.5%
16.	Chocolate Cream	04.31	28.7%
17.	Cherry, Frozen	04.36	29.1%
18.	Mince, Dried	04.43	29.5%
19.	Apricot, Canned	04.61	30.7%
20.	Plain Cream	04.62	30.8%
21.	Pineapple	04.64	30.9%
22.	Raisin Lemon Meringue, Seedless	04.66	31.1%
23.	Prune, Canned dried	04.70	31.3%
24.	Pumpkin, Frozen Squash	04.71	31.4%
25.	Lemon Chiffon, Egg	04.74	31.6%
26.	Pumpkin, Fresh Squash	04.74	31.6%
27.	Pumpkin Chiffon, Canned	04.95	33.0%
	AVERAGE FOR LOWER THIRD	04.14	27.6%
28.	Fresh Pear and Pineapple	04.97	33.1%
29.	Apple, Frozen	05.02	33.5%
30.	Lemon Chiffon, Gelatin	05.05	33.7%
31.	Apple, Canned	05.10	34.0%
32.	Coconut Cream	05.42	36.1%
33.	Lemon Meringue, Cond. Milk	05.46	36.4%
34.	Rhubarb, Frozen	05.59	37.3%
35.	Mince, Canned	05.62	37.5%
36.	Lemon Meringue, Cornstarch	05.62	37.5%
37.	Pumpkin, Sweet potato	05.69	37.9%
38.	Prune Chiffon, Stewed Dried	05.80	38.7%

TABLE IX (Continued)

COST PER PORTION OF PIES (7 CUTS) SHOWING RELATIONSHIP
OF COST TO SELLING PRICE AT 15 CENTS

NO.	NAME OF PIE	COST PER PORTION (1/7) Cents	RELATIONSHIP OF COST TO SELLING PRICE (at 15 cents)
39.	Prune Nut Cream, Stewed Dried	05.85	39.0%
40.	Plum, Canned	05.89	39.3%
41.	Pineapple, Cream	05.92	39.5%
42.	Peach Custard, Canned	06.00	40.0%
43.	Peach Cream, Canned	06.01	40.1%
44.	Fresh Rhubarb	06.22	41.5%
45.	Peach, Canned	06.26	41.7%
46.	Raisin, Seeded	06.28	41.8%
47.	Boysenberry, Frozen	06.32	42.1%
48.	Peach, Frozen	06.32	42.1%
49.	Chocolate Chiffon	06.49	43.3%
50.	Boysenberry Glace, Frozen	06.54	43.6%
51.	Rhubarb Pineapple, Fresh	06.61	44.1%
52.	Orange Chiffon	06.79	45.3%
53.	Rhubarb Custard, Frozen	06.89	45.9%
	AVERAGE FOR MIDDLE THIRD	05.91	39.4%
54.	Banana Cream	06.97	46.5%
55.	Rhubarb Pineapple, Frozen	07.02	46.8%
56.	Peach Norwegian, Canned	07.03	46.9%
57.	Prune Chiffon, Canned	07.17	47.8%
58.	Prune Nut Cream, Canned	07.23	48.2%
59.	Raisin Butter Cream, Seedless	07.27	48.5%
60.	Rhubarb Custard, Fresh	07.51	50.1%
61.	Peach Glace, Frozen	07.73	51.5%
62.	Lemon Butter Meringue	07.82	52.1%
63.	Raspberry Glace, Frozen	07.84	52.3%
64.	Apricot Chiffon, Dried	07.86	52.4%
65.	Blackberry Glace, Frozen	08.10	54.0%
66.	Pecan	08.12	54.1%
67.	Banana Orange Chiffon	08.14	54.3%
68.	Raspberry, Frozen	08.23	54.9%
69.	Cherry, Canned	08.47	56.5%
70.	Blackberry, Frozen	08.62	57.5%
71.	Raspberry Chiffon, Frozen	08.71	58.1%
72.	Apricot Chiffon, Canned	08.90	59.3%
73.	Peach, Dried	08.96	59.7%
74.	Peach Chiffon, Canned	09.18	61.2%
75.	Strawberry Glace, Frozen	09.15	61.0%
76.	Blueberry, Frozen	09.31	62.0%
77.	Strawberry Chiffon, Frozen	09.79	65.3%
78.	Blueberry Glace, Frozen	12.40	82.7%
79.	Boysenberry, Canned	14.12	94.1%
	AVERAGE FOR UPPER THIRD	08.52	56.8%
	GRAND AVERAGE	06.16	



SUMMARY AND CONCLUSIONS

Summary. A study was made of the costs of various types of 9 inch pies with fillings using a standard pastry. Selections of recipes to be calculated were based on choices of judges who rated samples actually prepared in the experimental kitchen in Yakeley Hall. Some 300 pies were made from approximately 170 recipes. Of these, 54 recipes were selected as suitable for use in dormitory or commercial food services. From the data collected it seemed advisable to group the pies studied according to the following types: two crust fruit filled pies, cream pies, chiffon pies, custard pies, glaze fruit pies, and miscellaneous. Using these 54 recipes and their variations, totaling 79 in all, cost computations were made on the basis of prevailing prices charged to the food service at Yakeley Hall as of October 1949. (See Table X in Appendix.) Computations were expressed in cost per serving both for 8 cuts per pie as is used in the residence halls at Michigan State College as well as for 7 cuts per pie as is used in the Union Cafeteria and most commercial food services.

The rating of pies was done by both men and women, trained and untrained, in order to get as fair a representation as possible of the patrons in a commercial food service establishment.

Their number varied from 8 to 24. No effort was made to keep the same judges over the six month period during which the experimental work was carried out. Rating was based on personal taste preference only.

Conclusions. From the results of this study the following conclusions can be drawn:

1. There are great variations in costs of pies within almost every group. The two-crust fruit pie group contained the lowest (2.28 cents) as well as the highest (14.2 cents) portion cost of the entire study. Cream pies ranged from 3.68 cents to 7.82 cents; chiffon pies from 4.74 to 9.79 cents; glaze fruit pies from 6.54 to 12.40 cents; miscellaneous pies ranged from 4.66 to 8.12 cents. Custard pies were the most uniform in price with a range of 4.03 to 6.00 cents.
2. Pies can be said to be a relatively costly dessert since approximately half of the pies studied came above the prescribed 40% food cost level. Some pies, particularly those in the upper third of the cost range, were in the cost bracket of many of the popular less expensive entrees used in college food services. This bracket is 7 to 14 cents.
3. From the results of this study it is evident that successful food service managers need to know portion costs and cost percentages of all the foods they serve, as well as to keep these figures up to date, in order to make an over-all evaluation of their menus from the standpoint of profit or loss.
4. Further work should be carried out on fresh berries and peaches in season as a comparison with frozen fruit of the same type.

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APPENDIX

TABLE X
Food Stores M.S.C.

FOOD COSTS AS OF OCTOBER 1, 1949

ITEM	UNIT	COST	ITEM	UNIT	COST
<u>FRUIT</u>			<u>DAIRY PRODUCTS ETC.</u>		
Apples Fresh	Bushel	\$1.00	Butter	1#	.65
Dried	1#	.2396	Cream, Coffee	quart	.56
Canned	# 10 can	.75	Whipping	quart	1.12
Frozen	1#	.18	Eggs Fresh	dozen	.65
Processed	1#	.08	Froz.-whole	1#	.385
Apricots, Canned	# 10 can	.779	Froz.-yolks	1#	.46
Dried	1#	.29	Froz.-whites	1#	.34
Bananas, Fresh	1#	.1643	Milk Fresh	quart	.125
***Frozen	1#	.23	Evaporated	# 10 can	1.00
Blackberries, Frozen	1#	.23	Condensed	13 oz.can	.1292
Blueberries, Frozen	1#	.251	Shortenings, Oleo	1#	.2375
Boysenberries, Frozen	1#	.157	Lard	1#	.13
*Canned	# 2 can	.43	Vreamay	1#	.195
Cherries, Black-froz.	1#	.12	<u>EXTRACTS</u>		
Red-frozen	1#	.1717	Almond	quart	4.40
Red-canned	# 2 can	.2259	Lemon	quart	.75
Maraschino	1 gallon	2.917	Maple	quart	2.97
Grapes, Concord	1 pk.	1.18	Vanilla	quart	.25
Lemons #252	case	7.75	<u>SPICES</u>		
Oranges #150	case	6.75	Allspice	1#	.528
Juice	# 5 can	.204	Cinnamon	1#	.507
Peaches Fresh	Bushel	1.75	Cloves	1#	.96
Canned- $\frac{1}{2}$'s	# 10 can	.912	Mace	1#	2.31
Canned-slices	# 10 can	.8585	Nutmeg	1#	.73
Frozen	1#	.163	Ginger	1#	.45
*Dried	1#	.49	<u>SUGARS & SIRUPS</u>		
Pears Fresh	Bushel	3.00	Sugar, Granulated	1#	.0838
Canned	# 10 can	1.35	Brown	1#	.0835
Pineapple, Crushed	# 10 can	1.18	Powdered	1#	.0905
Plums, Fresh	30# bsk.	2.10	Karo Light	5#	.475
Canned	# 10 can	.742	Dark	5#	.495
Prunes Dried	1#	.07	Gold Medal Sirup	1 gal.	1.186
Canned dried	# 10 can	.866	Molasses	# 10 can	.683
Pumpkin Fresh	1	.25	Honey Strained	5#	.6417
Canned	# 10 can	.433	<u>STAPLES</u>		
Raisins Seedless	1#	.121	Baking Powder	1#	.15
*Seeded	1#	.26	Chocolate Naps	1#	.508
Rhubarb Fresh	1#	.21	Cocoa	1#	.34
Frozen	1#	.16	Coconut Shredded	1#	.39
Raspberry Frozen	1#	.2190	Coffee	1#	.68
Strawberries Froz.	1#	.294	Cornstarch	1#	.081
Squash Fresh	1#	.12	Cream of Tartar	1#	.65
Frozen	1#	.1275	Flour, Pastry	1#	.064
Sweet Potato (Yams)	1#	.0986	Gelatin	1#	.904
Mincemeat, Canned	# 10 can	1.3430	Nutmeats, Walnuts	1#	.68
Dried	1 pkg.	.21	Pecans	1#	.90
			Salt	1#	.0315
			Tapioca, Minute	1#	.15

* Retail price.

** Price as of February 1950.

PRODUCT _____

Is this product acceptable?

SAMPLE NO.						
YES						
NO						
COMMENTS						

Please state preference:

First choice No. _____

Second choice No. _____

No preference _____

NAME _____

DATE _____

PLAIN BASIC PASTRY (double crust)

Source: American Woman's Cook Book
(modified)

Date: September 30, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry flour, sifted	2 C.	4 C.	6 C.	.0320	Mix together well.
Salt	3/4 t.	1 1/2 t.	2 1/4 t.	.0002	
*Lard, chilled	2/3 C.	1 1/3 C.	2 C.	.0433	Using a pastry blender, cut into the flour mixture until the pieces of lard are the size of small peas.
**Milk, cold	4 T.	1/2 C.	3/4 C.	.0078	
				<hr/> .0833	Add slowly, mixing lightly with a fork until mixture holds together. Chill. Roll.

* Hydrogenated fat may be used in place of lard in the same amounts.
Using Vreamay the cost of this same pastry is .1050.

** Amount of milk may vary slightly depending upon the temperature of
the lard and the amount of moisture absorbed by the flour in
storage.

APPLE PIE

Source: Constance Hart
Page 300

Date: November 3, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Apples, peeled and sliced	1 qt.	2 qt.	3 qt.	.0332	Line 9" pie tin with pastry.
Sugar	$\frac{1}{2}$ C.	1 C.	1 $\frac{1}{2}$ C.	.0210	Mix dry ingredients well; combine with apples and mix well. Turn into pastry lined pie tin. Dot with butter.
Cinnamon	$\frac{1}{2}$ t.	1 t.	1 $\frac{1}{2}$ t.	.0012	
Flour	$\frac{1}{2}$ T.	1 T.	1 $\frac{1}{2}$ T.	.0005	
Salt	1/8 t.	$\frac{1}{4}$ t.	3/8 t.	.0001	
Pastry, for double crust	1	2	3	.0833	Cover with upper crust.
Butter	1 T.	2 T.	3 T.	.0203	Bake at 450° F. for 10 minutes then at 350° F. for 20 - 30 minutes.
				<hr/> .1596	

VARIATIONS:

Frozen apples:	Use 1 $\frac{1}{4}$ lbs.	Total cost of pie	.3514
Canned apples:	Use 1 qt.	Total cost of pie	.3572
Treated apples:	Use 1 qt.	Total cost of pie	.2276
*Dried apples:	Use $\frac{1}{2}$ lb.	Total cost of pie	.2462

* Directions: Cook $\frac{1}{2}$ lb. dried apples in 2 $\frac{1}{2}$ cups water. Let simmer for 3/4 hour. Then follow directions as for fresh apples.

APRICOT PIE

Source: The Test Kitchen

Date: January 24, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry, for double crust	1	2	3	.0833	Line 9" pie tin with pastry.
Apricot juice	2/3 C.	1 1/3 C.	2 C.	-----	Cook until thick and clear.
Cornstarch	2 T.	4 T.	6 T.	.0034	
Sugar	1 C.	2 C.	3 C.	.0419	
Salt	1/4 t.	1/2 t.	3/4 t.	.0001	
Stewed dried apricots- drained unsweetened	2 C.	4 C.	6 C.	.1289	Combine with above. Fill pastry lined pie tin.
Butter	1 T.	2 T.	3 T.	.0203	Dot with butter. Cover with top crust.
				<hr/> .2779	Bake at 450°F. for 10 minutes, then at 350°F. for 20 - 30 minutes

VARIATIONS:

Canned apricots: Use same amounts (except when using sweetened
apricots cut sugar in half). Total cost of
pie--- .3229

APRICOT CHIFFON PIE

Source: Better Homes & Gardens
8/49 p. 89 (mod.)

Date: January 25, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
*Gelatin, plain	1½ T.	3 T.	4½ T.	.0340	Soak for 5 minutes. Dissolve over hot water.
Cold water	¼ C.	½ C.	¾ C.	----	
Pureed apricots (canned, sweetened)	1½ C.	3 C.	4½ C.	.1948	Combine and add to above. Chill until it begins to congeal.
Lemon juice	2 T.	4 T.	6 T.	.0308	
*Sugar	1/3 C.	2/3 C.	1 C.	.0140	
Salt	1/8 t.	¼ t.	3/8 t.	.0001	
Orange rind, grated	1 t.	2 t.	3 t.	.0217	
Almond extract	¼ t.	½ t.	¾ t.	.0057	
Whipping Cream	1 C.	2 C.	3 C.	.2800	Whip until stiff. Fold into apricot mixture. Turn into pie shell and chill thoroughly until ready to serve. Garnish with slices of apricots.
				.6228	

* USING DRIED APRICOTS:

Use 2 T. gelatin, 2/3 C. sugar.
COST: For dried apricots .5500

BANANA CREAM PIE (one crust

Source: Variation of Cream Pie

Date: October 14, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell
Milk	2 C.	4 C.	6 C.	.0625	Scald in top of double boiler
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	Make a paste of these ingredients; stir into hot milk; cook until thick stirring constantly. Cover and cook 10 minutes
Salt	$\frac{1}{2}$ t.	1 t.	$1\frac{1}{2}$ t.	.0002	
Flour	6 T.	$\frac{3}{4}$ C.	$1\frac{1}{8}$ C.	.0060	
Milk, cold	1 C.	2 C.	3 C.	.0313	
Egg yolks, beaten	2	4	6	.1083	Mix some of the hot ingredients into the eggs; return to the double boiler; cook one minute stirring constantly
Butter	2 T.	4 T.	6 T.	.0406	Add to above and cool thoroughly
Vanilla	1 t.	2 t.	3 t.	.0013	
Bananas (A.P.)	1 #	2 #	3 #	.1643	Arrange filling and sliced bananas in alternate layers in the baked pie shell
<u>MERINGUE:</u> Egg whites, beaten stiffly	2	4	6	-----	Top with meringue. Brown in oven at 375°F. for 12 minutes
Sugar	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
Vanilla	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0003	
				<u>.4880</u>	

BANANA ORANGE CHIFFON PIE

Source: The Test Kitchen

Date: April 15, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Gelatin, plain	1 T.	2 T.	3 T.	.0227	Soak for a few minutes
Water, cold	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	----	
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	Cook in top of double boiler until of custard consistency stirring constantly. Remove from fire and dissolve gelatin in it.
Orange Juice	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0866	
Salt	$\frac{1}{2}$ t.	1 t.	$1\frac{1}{2}$ t.	.0002	
Egg yolks, beaten	2	4	6	.1084	
Orange rind, grated	$\frac{1}{2}$ T.	1 T.	$1\frac{1}{2}$ T.	----	Stir in and cool.
Lemon juice	1 T.	2 T.	3 T.	.0154	Combine and add to the cooled mixture. Chill thoroughly until it begins to congeal
Ripe bananas, mashed	1 C.	2 C.	3 C.	.1232	
Egg whites, beaten still	2	4	6	----	Beat sugar gradually into the egg whites. Fold into the custard mixture. Turn into pie shell and chill thoroughly until ready to serve. Top with whipped cream
Sugar	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
<u>TOPPING:</u>					
Whipping cream whipped	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.1400	
				.5697	

BLACKBERRY PIE

Source: The Test Kitchen

Date: February 8, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry
Cornstarch	2 T.	4 T.	6 T.	.0034	
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	
Salt	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0001	
Blackberry juice	$\frac{2}{3}$ C.	1 $\frac{1}{3}$ C.	2 C.	----	
Blackberries, drained*	3 C.	6 C.	9 C.	.4600	Combine with the thickened juice. Fill pie shell
Lemon juice	1 T.	2 T.	3 T.	.0154	
Butter	1 T.	2 T.	3 T.	.0203	Dot with butter. Cover with top crust. Bake at 450°F. for 10 minutes then at 350°F. for 20-30 minutes
				<hr/> .6035	

* This amount will require approximately 2 lbs. including the juice.

BLACKBERRY GLACE PIE

Source: The Test Kitchen

Date: February 7, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell
Blackberry juice	1 C.	2 C.	3 C.	----	Cook together until thick and clear stirring constantly. Remove from fire.
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	
Cornstarch	3 T.	6 T.	9 T.	.0051	
Salt	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0001	
Gelatin, plain	$\frac{1}{2}$ T.	1 T.	$1\frac{1}{2}$ T.	.0113	Soak gelatin in cold water for 5 minutes, then dissolve in the hot juice. Cool until mixture begins to congeal
Water, cold	2 T.	4 T.	6 T.	----	
Blackberries (frozen, drained)	2 C.	4 C.	6 C.	.3450	Fold into the congealed juice. Turn into pie shell and chill thoroughly until ready to serve. Top with whipped cream
<u>TOPPING:</u>					
Whipping cream	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.1400	
Sugar	1 T.	2 T.	3 T.	.0026	
Vanilla	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0002	
				<hr/> .5670	

BLUEBERRY PIE

Source: American Woman's Cook Book
p. 594 (modified)

Date: October 19, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry.
Frozen blueberries drained	4 C.	8 C.	12 C.	.5020	Combine all ingred- ients. Fill pie shell.
Sugar	1 C.	2 C.	3 C.	.0419	
Flour	4 T.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0040	
Salt	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0001	
Butter	1 T.	2 T.	3 T.	.0203 <hr/> .6516	Dot over fruit mixture. Cover with top crust. Bake at 450°F. for 10 minutes then at 350°F. for 20 - 30 minutes.

BLUEBERRY GLACE PIE

Source: The Test Kitchen

Date: October 19, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell
*Blueberries	1 C.	2 C.	3 C.	.5020	Combine and bring to a boil
Sugar	1 C.	2 C.	3 C.	.0419	
Water	3/4 C.	1 1/2 C.	2 1/4 C.	---	
Flour	2 T.	4 T.	6 T.	.0020	Make a paste and thicken the blueberries. Cook until clear. Cool
Salt	1/4 t.	1/2 t.	3/4 t.	.0001	
Water	1/4 C.	1/2 C.	3/4 C.	----	
Blueberries, drained	3 C.	6 C.	9 C.	----	Combine with chilled cooked berries. Turn into baked pie shell. Chill thoroughly (2-3 hrs.). Top with whipped cream.
<u>TOPPING:</u>					
Whipping cream	1 C.	2 C.	3 C.	.2800	
				<hr/> .8677	

*Blueberries should be fresh or frozen.

BOYSENBERRY PIE

Source: The Test Kitchen

Date: February 7, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry
Cornstarch	2 T.	4 T.	6 T.	.0034	Cook until thick and smooth stirring constantly. Remove from fire.
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	
Salt	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0001	
Boysenberry juice	$\frac{2}{3}$ C.	$1\frac{1}{3}$ C.	2 C.	----	
Boysenberries, drained	*3 C.	6 C.	9 C.	.3140	Combine with thickened juice. Turn into pie shell.
Butter	1 T.	2 T.	3 T.	.0203 ** .4421	Dot with butter. Cover with upper crust. Bake at 450°F. for 10 minutes then at 350°F. for 20 - 30 minutes.

* This amount will require approximately 2 lbs. including the juice.

** Cost of frozen boysenberry pie.

Cost of canned boysenberry pie (retail price) .9881

BOYSENBERRY GLACE PIE

Source: The Test Kitchen

Date: February 7, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Boysenberry juice	1 C.	2 C.	3 C.	----	Cook together until thick and clear stirring constantly. Remove from fire.
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	
Cornstarch	3 T.	6 T.	9 T.	.0051	
Salt	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0001	
Gelatin, plain	$\frac{1}{2}$ T.	1 T.	$1\frac{1}{2}$ T.	.0113	Soak gelatin in cold water for 5 minutes, then dissolve in the hot juice above. Cool until mixture begins to congeal.
Water, cold	2 T.	4 T.	6 T.	----	
Boysenberries, (frozen, drained)	2 C.	4 C.	6 C.	.2355	Fold into the congealed juice. Turn into pie shell and chill thoroughly until ready to serve. Top with whipped cream.
<u>TOPPING:</u>					
Whipping cream	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.1400	
Sugar	1 T.	2 T.	3 T.	.0026	
Vanilla	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0002	
				<hr/> .4575	

BUTTERSCOTCH PIE (one crust)

Source: The Test Kitchen

Date: November 19, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell
Brown sugar	3/4 C.	1 1/2 C.	2 1/4 C.	.0209	Combine dry ingredients, add a little of the milk to make a paste. Add to hot milk in top of double boiler; cook until thick stirring constantly. Cover and cook 10 minutes more.
Flour	4 T.	1/2 C.	3/4 C.	.0040	
Salt	1/2 t.	1 t.	1 1/2 t.	.0002	
Milk, scalded	2 C.	4 C.	6 C.	.0625	
Egg yolks, beaten	2	4	6	.1083	Add some of hot mixture to eggs; return to double boiler and cook one minute stirring constantly.
Butter	2 T.	4 T.	6 T.	.0406	Add and cool.
Vanilla	1 t.	2 t.	3 t.	.0013	Turn into baked pie shell.
<u>MERINGUE:</u>					
Eggwhites, beaten stiffly	2	4	6	----	Top with meringue and brown in oven at 375°F. for 12 minutes
Sugar	1/4 C.	1/2 C.	3/4 C.	.0105	
Vanilla	1/4 t.	1/2 t.	3/4 t.	.0013	
				.2913	

CHERRY PIE (canned)

Source: Constance Hart
p. 302 (modified)

Date: November 22, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry.
Cherry juice	2/3 C.	1 1/3 C.	2 C.	----	Cook these ingredients together until the tapioca becomes clear; remove from the fire.
Sugar	2/3 C.	1 1/3 C.	2 C.	.0280	
Salt	1/2 t.	1/2 t.	3/4 t.	.0001	
Tapioca, minute	2 T.	4 T.	6 T.	.0094	
Cherries, drained #2 cans	2 cans	4	6	.4518	Add to the above mixture and turn into the pastry lined tin.
Butter	1 T.	2 T.	3 T.	.0203 <hr/> .5929	Dot with butter. Cover with upper crust. Bake at 450°F. for 10 minutes that at 350°F. for 20 - 30 minutes.

CHOCOLATE CHIFFON PIE

Source: The Settlement Cook Book
p. 382

Date: March 10, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Plain gelatin	1 T.	2 T.	3 T.	.0226	Soak for 5 minutes.
Cold water	$\frac{1}{2}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	----	
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	Boil together. Remove from fire. Add softened gelatin and stir until dissolved. Cool.
Chocolate, melted	2 oz.	4 oz.	6 oz.	.0636	
Salt	$\frac{1}{2}$ t.	1 t.	$1\frac{1}{2}$ t.	.0002	
Hot milk	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0157	
Strong black coffee	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0085	
Vanilla	1 t.	2 t.	3 t.	.0013	Add. Allow to cool until mixture begins to congeal.
Whipping cream	1 C.	2 C.	3 C.	.2800 <hr/> .4546	Whip cream until stiff and fold into the cooled chocolate mixture. Turn into pie shell and chill thoroughly until ready to serve. Some of the whipped cream may be reserved for garnish if desired.

CREAM PIE FILLING (one crust)

Source: American Woman's Cook Book
p. 598 (modified)

Date: September 30, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Milk	2 C.	4 C.	6 C.	.0625	Scald in top of double boiler
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	Make a paste; add to scalded milk. Cook until thickened stirring constantly. Cook 5 minutes (covered).
Salt	$\frac{1}{2}$ t.	1 t.	$1\frac{1}{2}$ t.	.0002	
Flour	6 T.	$\frac{3}{4}$ C.	$1\frac{1}{8}$ C.	.0060	
Milk, cold	1 C.	2 C.	3 C.	.0313	
Egg yolks, beaten	2	4	6	.1083	Stir some of hot mixture into egg; return to double boiler and cook one minute stirring constantly. Remove from fire.
Butter	2 T.	4 T.	6 T.	.0406	Add and cool. Fill pie shell. Top with meringue.
Vanilla	1 t.	2 t.	3 t.	.0013	
<u>MERINGUE:</u>					
Eggwhites, beaten stiff	2	4	6	----	Brown in over at 375°F. for 12 minutes.
Sugar	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
Vanilla	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0003	
				.3237	

VARIATIONS:

Pineapple Cream Pie -- Add 1 Cup crushed pineapple to the above filling.
Cost .4145
Coconut Cream Pie -- Add 1 Cup shredded coconut to the above recipe.
Cost .3794

PLAIN CUSTARD PIE

Source: American Woman's Cook Book
p. 600 (modified)

Date: January 17, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Unbaked pie shell	1	2	3	.0417	Line a 9" pie tin with pastry.
Eggs, slightly beaten	3	6	9	.1626	Combine
Salt	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0001	
Sugar	$\frac{1}{3}$ C.	$\frac{2}{3}$ C.	1 C.	.0140	
Vanilla	$\frac{1}{2}$ t.	1 t.	$1\frac{1}{2}$ t.	.0007	
Milk, hot	2 C.	4 C.	6 C.	.0625	Add slowly to the above mixing well.
Nutmeg	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0006 <hr/> .2822	Sprinkle on bottom of unbaked pie shell. Turn custard mix into shell. Bake at 450°F. for 10 minutes and the remainder of the time at 350°F. until a clean silver knife comes out clean when inserted in the custard. <u>NOTE:</u> We find that the pie is usually baked in 10 minutes when we start with hot milk.

GRAPE PIE

Source: Constance Hart
p. 303

Date: October 3, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry.
Concord grapes, washed & stemmed	1 qt.	2 qt.	3 qt.	.1475	Separate skins from pulp. Cook pulp until seeds are separated; strain pulp into skins.
Sugar	1 C.	2 C.	3 C.	.0419	Mix well and combine with grape pulp. Fill pie shell.
Flour	1½ T.	3 T.	4½ T.	.0015	
Salt	1/8 t.	¼ t.	3/8 t.	.0001	
Butter	1 T.	2 T.	3 T.	.0203 <hr/> .2946	Dot over fruit mixture. Cover with top crust. Bake at 450°F. for 10 minutes and at 350°F. for 20 - 30 minutes.

LEMON BUTTER MERINGUE PIE (one crust)

Source: The Joy of Cooking
p. 512 (modified)

Date: October 11, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Eggs, whole	3	6	9	.2708	Beat eggs well. Add sugar and cook in double boiler until thick, stirring constantly.
Egg yolks	2	4	6	----	
Sugar	1 C.	2 C.	3 C.	.0419	
Lemon juice	1/3 C.	2/3 C.	1 C.	.0616	Remove from fire. Add these ingredients, blending well. Cool. Turn into pie shell.
Lemon rind, grated	1 T.	2 T.	3 T.	----	
Butter	1/2 C.	1 C.	1 1/2 C.	.1625	
<u>MERINGUE:</u>					
Eggwhites, beaten stiffly	2	4	6	----	Top with meringue. Brown in oven at 375°F. for 12 minutes.
Sugar	1/4 C.	1/2 C.	3/4 C.	.0105	
Vanilla	1/4 t.	1/2 t.	3/4 t.	.0003	
				<hr/> .5476	

LEMON CHIFFON PIE (Eggwhites)

Source: The Test Kitchen

Date: October 5, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Egg yolks, beaten light	4	8	12	.2167	Combine and cook in the top of double boiler stirring constantly until thick. Remove from fire.
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0209	
Salt	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0001	
Lemon juice	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0308	
Lemon rind, grated	1 t.	2 t.	3 t.	----	
Water	3 T.	6 T.	9 T.	----	
Eggwhites, beaten stiffly	4	8	12	----	Gradually beat sugar into eggwhites until the consistency of meringue. Add vanilla. Fold half of the meringue into the slightly cooled custard blending it lightly but well. Use the remainder of the meringue as topping for this filling after it has been turned into the baked pie shell. Brown meringue in oven at 375°F. for 12 minutes.
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	
Vanilla	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0003	
				----- .3315	

LEMON CHIFFON PIE (gelatin)

Source: The Test Kitchen

Date: October 5, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Sugar	$\frac{1}{2}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	Cook in top of double boiler until of custard consistency, stirring constantly. Remove from fire.
Lemon juice	$\frac{1}{2}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0308	
Salt	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0001	
Egg yolks, beaten	2	4	6	.1083	
Gelatin, plain	$\frac{1}{2}$ T.	1 T.	$1\frac{1}{2}$ T.	.0113	Soak about 5 minutes. Dissolve in hot custard mixture.
Water, cold	2 T.	4 T.	6 T.	----	
Lemon rind, grated	1 t.	2 t.	3 t.	----	Add to custard mixture; blend. Cool until mixture begins to congeal.
Eggwhites, beaten stiff	2	4	6	-----	Slowly add sugar to beaten eggwhites, beating well between each addition. Fold into chilled lemon custard; blend well. Turn into baked pie shell. Chill thoroughly until ready for use. Top with whipped cream.
Sugar	$\frac{1}{2}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
<u>TOPPING:</u>					
Whipping cream, whipped	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.1400	
				.3532	



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LEMON MERINGUE PIE (Cornstarch)

Source: The Joy of Cooking
p. 512

Date: October 14, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Sugar	1 C.	2 C.	3 C.	.0419	Combine and cook in top of double boiler until thick, stirring constantly. Cover and cook 10 minutes.
Cornstarch	5 T.	10 T.	15 T.	.0085	
Salt	1/8 t.	1/4 t.	3/8 t.	.0001	
Water	2 C.	4 C.	6 C.	----	
Egg yolks, beaten	3	6	9	.1625	Add some of hot mixture to eggs, stirring well. Return to double boiler and cook 2 minutes stirring constantly.
Butter	3 T.	6 T.	9 T.	.0610	Remove custard from fire. Beat in these ingredients. Cool. Turn into baked pie shell.
Lemon juice	1/3 C.	2/3 C.	1 C.	.0616	
Lemon rind, grated	2 t.	4 t.	2 T.	----	
<u>MERINGUE:</u>					
Eggwhites, beaten stiffly	3	6	9	----	Top with meringue. Brown in oven at 375°F. for 12 minutes.
Sugar	6 T.	3/4 C.	1 1/8 C.	.0157	
Vanilla	1/4 t.	1/2 t.	3/4 t.	.0003	
				.3933	

LEMON MERINGUE (Flour)

Source: The Test Kitchen

Date: October 14, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Butter	1 T.	2 T.	3 T.	.0203	Combine in top of double boiler; allow butter to melt.
Hot water	1½ C.	3 C.	4½ C.	----	
Sugar	1 C.	2 C.	3 C.	.0419	Mix together the dry ingredients and add to the liquid. Combine with the hot ingredients above. Cook until thick stirring constantly. Cool.
Flour	4 T.	½ C.	¾ C.	.0040	
Egg yolks, beaten	2	4	6	.1083	
Lemon juice	¼ C.	½ C.	¾ C.	.0308	
Lemon rind, grated	1 t.	2 t.	3 t.	----	
<u>MERINGUE:</u>					
Eggwhites, beaten stiffly	2	4	6	----	Turn into pie shell and top with meringue. Brown in oven at 375°F. for 12 minutes.
Sugar	¼ C.	½ C.	¾ C.	.0105	
Vanilla	¼ t.	½ t.	¾ t.	.0003	
				<u>.2578</u>	

LEMON MERINGUE PIE (Condensed Milk) (One crust)

Source: Mrs. Ehlers

Date: October 19, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Condensed milk	1 can (13 oz.)	2 cans	3 cans	.1292	Combine and blend all ingredients well. Beat until smooth and thick; turn into pie shell.
Lemon juice	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0923	
Lemon rind, grated	1 T.	2 T.	3 T.	----	
Egg yolks, beaten	2	4	6	.1083	
<u>MERINGUE:</u>					
Eggwhites, beaten stiffly	2	4	6	----	Top with meringue. Brown in oven at 375°F. for 12 minutes.
Sugar	$\frac{1}{2}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
Vanilla	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0003	
				<hr/> .3823	

MINCE PIE (Canned)

Source: The Test Kitchen

Date: January 18, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry.
Mince meat	3 C.	6 C.	9 C.	.3099 <hr/> .3932	Fill pie shell; cover with upper crust. Bake at 450°F. for 10 minutes then at 350°F. for 20 minutes. <u>NOTE:</u> Water or fruit juice may be added to the mince meat if it seems dry.

VARIATION: Dried Mince Meat.

Use 9 oz. mince meat and $1\frac{1}{2}$ cups of water. Add 2 cups of chopped apples
before putting in the tins. Total Cost: .3099.

ORANGE CHIFFON PIE

Source: Miss Hart

Date: March 10, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Lemon juice	3 T.	6 T.	9 T.	.0308	Cook together in top of double boiler, stirring constantly until thick and smooth. Remove from fire.
Orange juice	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0866	
Orange rind, grated	1 t.	2 t.	3 t.	----	
Sugar	$\frac{3}{4}$ C.	$1\frac{1}{2}$ C.	$2\frac{1}{4}$ C.	.0314	
Salt	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0001	
Egg yolks, beaten well	2	4	6	.1004	
Gelatin, plain	1 T.	2 T.	3 T.	.0227	Soak 5 minutes. Dissolve in hot custard mixture. Chill until it begins to congeal.
Water, cold	$\frac{1}{2}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	----	
Eggwhites, beaten stiff	2	4	6	----	Beat sugar into egg whites a little at a time. Fold into the partially congealed custard and blend well. Turn into baked pie shell. Chill thoroughly until ready to serve, Top with whipped cream.
Sugar	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
<u>TOPPING:</u>					
Whipping cream, whipped	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.1400	
Sugar	1 T.	2 T.	3 T.	.0026	
Vanilla	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0002	
				<u>.4750</u>	

PEACH PIE (Frozen, canned or dried)

Source: The Test Kitchen

Date: February 14, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry.
*Peaches, sliced sweetened, drained	3 C.	6 C.	9 C.	.3219	Combine and fill unbaked pie shell.
Flour	2 T.	4 T.	6 T.	.0020	
Sugar	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
Salt	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0001	
Butter	1 T.	2 T.	3 T.	.0203 <hr/> *.4381	Dot peaches with butter. Cover with upper crust. Bake at 450°F. for 10 minutes then at 350°F. for 20 - 30 minutes.

* Cost for canned peaches: .4381
 Cost for frozen peaches: .4422 (2# peaches)
 Cost for dried peaches: .6272 (1# dried peaches cooked in 1 quart
 of water; Drain and add $\frac{1}{2}$ more of
 sugar-- $\frac{3}{4}$ C. in all.)

PEACH CHIFFON PIE

Source: Better Homes and Gardens
8/49, p. 89 (modified)

Date: February 15, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Gelatin, plain	1½ T.	3 T.	4½ T.	.0340	Soak for 5 minutes. Dissolve over hot water.
Water, Cold	¼ C.	½ C.	¾ C.	----	
Pureed peaches (canned, sweetened)	1½ C.	3 C.	4½ C.	.2146	Combine and add to above. Chill until it begins to congeal.
Lemon Juice	2 T.	4 T.	6 T.	.0308	
Sugar	1/3 C.	2/3 C.	1 C.	.0140	
Salt	1/8 t.	¼ t.	3/8 t.	.0001	
Orange rind, grated	1 t.	2 t.	3 t.	.0217	
Almond extract	¼ t.	½ t.	¾ t.	.0057	
Whipping cream	1 C.	2 C.	3 C.	.2800 ----- .6426	Whip until stiff. Fold into peach mixture. Turn into pie whell and chill thoroughly until ready to serve. Garnish with slices of peaches.

PEACH CREAM PIE (one crust)

Source: The Pie Book
p. 194 (modified)

Date: February 15, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Milk, scalded	1 C.	2 C.	3 C.	.0313	Scald in top of double boiler.
Sugar	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	Combine and make a paste. Add to hot milk in double boiler and cook until thick stirring constantly. Cover and cook 10 minutes.
Salt	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0001	
Cornstarch	2 T.	4 T.	6 T.	.0034	
Flour	2 T.	4 T.	6 T.	.0020	
Milk, cold	10 T.	$1\frac{1}{4}$ C.	$1\frac{7}{8}$ C.	.0195	
Egg yolks, beaten	2	4	6	.1084	Stir some of hot mixture into egg; return to double boiler and cook one minute stirring constantly. Remove from fire.
Butter	1 T.	2 T.	3 T.	.0203	Add to above.
Vanilla	$\frac{1}{2}$ t.	1 t.	$1\frac{1}{2}$ t.	.0007	
Eggwhites, beaten stiffly	2	4	6	----	Beat sugar into egg whites slowly. Fold into the hot mixture above.
Sugar	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
Sliced Peaches (canned, drained)	1 C.	2 C.	3 C.	.1073	Arrange peaches and cooled cream filling in layers in the baked pie shell. Top with meringue. Brown in oven at 375°F. for 10 minutes.
<u>MERINGUE:</u>					
Eggwhites, beaten stiffly	2	4	6	.0542	
Sugar	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
Vanilla	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0003	
				.4207	

PEACH CUSTARD PIE (single crust)

Source: The Pie Book
p. 196 (modified)

Date: February 15, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for single crust	1	2	3	.0417	Line a 9" pie tin with pastry.
Egg yolks, beaten	2	4	6	.1084	Combine all these ingredients.
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	
Butter, melted	1 T.	2 T.	3 T.	.0203	
Cornstarch	2 T.	4 T.	6 T.	.0034	
Peach juice, hot	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	----	
Sliced peaches, canned, drained sweetened	2 C.	4 C.	6 C.	.2146	Line unbaked pie shell with peach slices. Pour custard over them. Bake 10 minutes at 450°F. then 20 minutes at 350°F.
<u>MERINGUE:</u>					Cover with meringue if desired.
Eggwhites, beaten stiff	2	4	6	----	Beat the sugar gradually into the eggwhites; add vanilla. Spread on top of the pie. Brown at 350°F. for 12 minutes.
Sugar	$\frac{1}{2}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
Vanilla	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0003	
				<u>.4202</u>	

PEACH GLAZE PIE

Source: The Test Kitchen

Date: February 14, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Peach juice	1 C.	2 C.	3 C.	----	Combine and cook until thick and clear, stirring constantly. Remove from fire.
Sugar	1/3 C.	2/3 C.	1 C.	.0140	
Cornstarch	2 T.	4 T.	6 T.	.0034	
Salt	1/8 t.	1/4 t.	3/8 t.	.0001	
Gelatin, plain	1/2 T.	1 T.	1 1/2 T.	.0113	Soak 5 minutes then dissolve in hot juice. Cool until it begins to congeal.
Water	3 T.	6 T.	9 T.	----	
Peaches, *drained 20 minutes	3 C.	6 C.	9 C.	.3219	Fold into partially congealed juice. Turn into baked pie shell. Chill thoroughly for 1-2 hours until ready to serve. Top with whipped cream.
Almond extract	1/4 t.	1/2 t.	3/4 t.	.0057	
<u>TOPPING:</u>					
Whipping cream	1/2 C.	1 C.	1 1/2 C.	.1400	
Sugar	1 T.	2 T.	3 T.	.0026	
Vanilla	1/4 t.	1/2 t.	3/4 t.	.0003	
				<u>.5410</u>	

* Peaches should be frozen (defrosted) slices or fresh, sliced, sugared.



PEACH PIE - NORWEGIAN

Source: The Pie Book
p. 199 (Modified)

Date: February 15, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Peach juice	1 C.	2 C.	3 C.	----	Heat to boiling.
Brown sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0209	
Butter	1 T.	2 T.	3 T.	.0203	
Cornstarch	3 T.	6 T.	9 T.	.0051	Make a paste of these ingredients. Add to the hot juice and cook stirring constantly until smooth and clear. Cover and cook 10 minutes. Cool.
Salt	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0001	
Water	2 T.	4 T.	6 T.	----	
Sliced peaches, canned, drained, sweetened	2 C.	4 C.	6 C.	.2146	Add to the above. Chill. Fill baked pie shell. Chill thoroughly until ready to serve. Top with whipped cream.
Walnut meats, chopped	2 T.	4 T.	6 T.	.0425	
Maple flavoring	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0039	
<u>TOPPING:</u>					
Whipping cream	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.1400	
Sugar	1 T.	2 T.	3 T.	.0026	
Vanilla	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{4}$ t.	.0002	
				<hr/> .4919	



PEAR AND PINEAPPLE PIE

Source: The Test Kitchen

Date: October 24, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line 9" pie tin with pastry.
Fresh pears, pared cored, diced	3 C.	6 C.	9 C.	.1200	Combine all ingred- ients and turn into pie shell.
Crushed pineapple drained	1 C.	2 C.	3 C.	.0908	
Sugar	3/4 C.	1 1/2 C.	2 1/4 C.	.0315	
Salt	1/8 t.	1/4 t.	3/8 t.	.0001	
Flour	2 T.	4 T.	6 T.	.0020	
Butter	1 T.	2 T.	3 T.	.0203	Dot over the fruit. Cover with upper crust. Bake at 450°F. for 10 minutes then at 350°F. for 20 minutes.
				.3480	

PECAN PIE

Source: Miss Knight

Date: March 1, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pie shell, partially baked	1	2	3	.0417	Bake 9" shell for 5 minutes at 450°F.
Eggs, beaten	3	6	9	.1626	Combine all ingred- ients. Blend well. Turn into pie shell. Bake at 350°F. for 40 minutes.
Sugar*	1 C.	2 C.	3 C.	.0419	
Karo, white**	1 C.	2 C.	3 C.	.0653	
Butter, melted	1½ T.	3 T.	4½ T.	.0305	
Vanilla	1 t.	2 t.	3 t.	.0013	
Salt	½ t.	1 t.	1½ t.	.0002	
Pecans, broken	1 C.	2 C.	3 C.	.2250	
				<hr/> .5685	

* May use brown sugar if desired.

** May use dark sirup if desired.

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PINEAPPLE PIE (double crust)

Source: The Test Kitchen

Date: April 15, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry.
Crushed pineapple	2 C.	4 C.	6 C.	.1816	Combine; cook in double boiler until thick and clear stirring constantly.
Cornstarch	2 T.	4 T.	6 T.	.0034	
Sugar	2 T.	4 T.	6 T.	.0053	
Salt	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0001	
Butter	1 T.	2 T.	3 T.	.0203	Add and blend well. Fill pie shell; cover with top crust. Bake at 450°F. for 10 minutes, then at 350°F. for 20 minutes.
Lemon juice	1 T.	2 T.	3 T.	.0308	
Grated lemon rind	1 T.	2 T.	3 T.	----	
				<hr/> .3248	

NOTE: This filling may also be used in a baked pie shell and topped with meringue. In that case the filling should be cooked 15 - 20 minutes.

PLUM PIE

Source: The Test Kitchen

Date: October 19, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Fresh plums, pitted and chopped	*3 C.	6 C.	9 C.	.1050	Combine all ingredients.
Sugar	1 C.	2 C.	3 C.	.0420	
Flour	2 T.	4 T.	6 T.	.0020	
Salt	1/8 t.	1/4 t.	3/8 t.	.0001	
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry; fill with the plum mixture; Dot with butter. Cover with upper crust. Bake at 450°F. for 10 minutes then at 350°F. for 20 - 30 minutes.
Butter	1 T.	2 T.	3 T.	.0203	
				<hr/> .2527	

* This is approximately 1 $\frac{1}{2}$ lbs. of plums.

NOTE: Canned plums may also be used but they must be drained of most of their juice and are best if chopped somewhat.
Cost of canned plums: (using only $\frac{1}{2}$ cup of sugar) .4122

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PLUM CUSTARD PIE

Source: The Test Kitchen

Date: October 19, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry.
Fresh plums, pitted & chopped	*2 C.	4 C.	6 C.	.0700	Combine all ingred- ients. Fill pie shell; cover with upper crust using the lattice style top. Bake at 450°F. for 10 minutes then at 350°F. for 20 - 30 minutes.
Sugar	1 C.	2 C.	3 C.	.0420	
Eggs, beaten	1	2	3	.0542	
Coffee cream	3 T.	6 T.	9 T.	.0263	
Salt	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0001	
Flour	2 T.	4 T.	6 T.	.0020	
				<hr/> .2779	



PRUNE PIE (double crust)

Source: The Test Kitchen

Date: February 21, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry.
Prune juice (or diluted juice)	3/4 C.	1 1/2 C.	2 1/2 C.	----	Combine and heat.
Sugar	1/2 C.	1 C.	1 1/2 C.	.0210	
Salt	1/2 t.	1 t.	1 1/2 t.	.0002	
Lemon juice	2 T.	4 T.	6 T.	.0308	
Cinnamon	1/4 t.	1/2 t.	3/4 t.	.0006	
Butter	1 1/2 T.	3 T.	4 1/2 T.	.0305	
Cornstarch	3 T.	6 T.	9 T.	.0051	Make a paste. Add to the hot juice mixture.
Water, cold	3 T.	6 T.	9 T.	----	Cook until thick stirring constantly until clear.
Prune pulp, chopped	2 C.	4 C.	6 C.	*.1574 ----- *.3289	Fold into the above. Fill pie shell. Cover with lattice top. Bake at 450°F. for 10 minutes then at 350°F. for 20 - 30 minutes.

* Cost for canned dried prunes.

Cost for stewed dried prunes (with 1/2 cup additional sugar) is .2325.



PRUNE NUT CHIFFON PIE

Source: The Pie Book
p. 225 (modified)

Date: February 21, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
*Prune pulp chopped	2 C.	4 C.	6 C.	.1574	Combine.
Sugar	$\frac{1}{4}$ c.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
Walnut meats, chopped	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0850	
Eggwhites, beaten stiff	2	4	6	.0542	Beat sugar gradually into eggwhites. Add salt. Fold into prune pulp, blending well. Turn into pie shell. Bake at 325°F. for 20 minutes. Cool at room temperature. Serve with whipped cream topping.
Sugar	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0105	
Salt	$\frac{1}{2}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0001	
<u>TOPPING:</u>					
Whipping cream	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.1400	
Sugar	1 T.	2 T.	3 T.	.0026	
Vanilla	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0002	
				<hr/> .5022	

* Canned nectarized prunes.

Cost for stewed dried prunes (plus an additional $\frac{1}{2}$ C. sugar) is .4059.

PRUNE NUT CREAM PIE (one crust)

Source: The Pie Book
p. 229 (modified)

Date: February 21, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Milk, scalded	1 C.	2 C.	3 C.	.0313	Combine dry ingredients and add to scalded milk in top of double boiler. Cook until thick stirring constantly. Cover and cook 10 minutes longer.
Flour	$\frac{1}{2}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0040	
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	
Salt	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0001	
Egg yolks, beaten	2	4	6	.0542	Add to above; cook a few minutes stirring constantly. Remove from fire.
Butter	$1\frac{1}{2}$ T.	3 T.	$4\frac{1}{2}$ T.	.0305	
Prune pulp, chopped	1 C.	2 C.	3 C.	*.0787	Add to above. Cool. Fill pie shell; chill. Top with whipped cream just before serving.
Maraschino cherries chopped	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0456	
Pecans, chopped	$\frac{1}{4}$ C.	$\frac{1}{2}$ C.	$\frac{3}{4}$ C.	.0563	
<u>TOPPING:</u>					
Whipping cream	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.1400	
Sugar	1 T.	2 T.	3 T.	.0026	
Vanilla	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0002	
				<u>.5062</u>	

Cost for stewed dried prunes .4098.

* Cost for canned dried prunes .5062

PUMPKIN PIE

Source: The Test Kitchen

Date: October 27, 1949

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Unbaked pie shell	1	2	3	.0417	Line a 9" pie tin with pastry.
Pumpkin*	1 C.	2 C.	3 C.	.0333	Combine the dry ingred- ients and mix well. Add to the pumpkin, blend well.
Brown sugar	3/4 C.	1 1/2 C.	2 1/4 C.	.0209	
Salt	3/4 t.	1 1/2 t.	2 1/4 t.	.0002	
Cinnamon	1 t.	2 t.	3 t.	.0024	
Nutmeg	1 t.	2 t.	3 t.	.0044	
Ginger	3/4 t.	1 1/2 t.	2 1/4 t.	.0014	
Mace	1/2 t.	1/2 t.	3/4 t.	.0035	
Eggs, beaten	2	4	6	.1084	Combine and add to the above ingredients. Mix well. Turn into the unbaked pie shell. Bake at 450°F. for 10 minutes, then at 350°F. for 40 minutes.
Evaporated milk, undiluted	1 1/3 C.	2 2/3 C.	4 C.	.0833 <hr/> .2995	

NOTE: This pie may be made using fresh pumpkin, squash or sweet potato and resulting in a product that is comparable to the above in quality. Sweet potato (or yam) has a tendency to be slightly stiffer in consistency. The cost for the above were found to be as follows:

*Canned pumpkin.2995
Fresh pumpkin2913
Fresh squash.3319
Frozen squash3300
Yams.3986

PUMPKIN CHIFFON PIE

Source: Miss Hart

Date: March 10, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Pumpkin	1½ C.	3 C.	4½ C.	.0500	Cook together.
Brown sugar	1 C.	2 C.	3 C.	.0418	
Egg yolks, beaten	3	6	9	.1626	
Milk	½ C.	1 C.	1½ C.	.0157	
Cinnamon	2 t.	4 t.	2 T.	.0048	
Ginger	½ t.	1 t.	1½ t.	.0010	
Nutmeg	1/8 t.	¼ t.	3/8 t.	.0006	
Salt	½ t.	1 t.	1½ t.	.0002	
Gelatin, plain	1 T.	2 T.	3 T.	.0226	Soak for 5 minutes. Dissolve in hot custard. Chill until it begins to congeal.
Cold water	½ C.	½ C.	¾ C.	----	
Egg whites, beaten stiff	3	6	9	----	Beat sugar into egg- whites, fold into custard mixture. Turn into pie shell and chill thoroughly until ready to serve.
Sugar	2 T.	4 T.	6 T.	.0053	
				.3463	

RAISIN PIE (double crust)

Source: The Test Kitchen

Date: February 2, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry.
Raisins, seeded	2 C.	4 C.	6 C.	.2600	Cook together for 5 minutes.
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	
Water	$1\frac{1}{2}$ C.	3 C.	$4\frac{1}{2}$ C.	----	
Salt	$\frac{1}{2}$ t.	1 t.	$1\frac{1}{2}$ t.	.0002	
Butter	2 T.	4 T.	6 T.	.0406	
Lemon juice	3 T.	6 T.	9 T.	.0308	
Cornstarch	2 T.	4 T.	6 T.	.0034	Make a paste and add to the above. Cook until thick and clear stirring constantly. Fill lined pie shell. Cover with upper crust- plain or lattice. Bake at 450°F. for 10 minutes and at 350°F. for 20 - 30 minutes.
Cold water	3 T.	6 T.	9 T.	----- . .4393	

NOTE: Cost for seedless raisins .2701

RAISIN BUTTER CREAM PIE (one crust)

Source: The Pie Book
p. 240 (modified)

Date: February 2, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Butter, soft	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.1625	Beat together until creamy and thick.
Sugar	$\frac{2}{3}$ C.	$1\frac{1}{3}$ C.	2 C.	.0279	
Egg yolks, beaten	3	6	9	.1625	
Flour	2 T.	4 T.	6 T.	.0020	
Milk, scalded	$1\frac{1}{4}$ C.	$2\frac{1}{2}$ C.	3 $\frac{3}{4}$ C.	.0391	Add to egg mixture; cook in double boiler until thick, stirring constantly.
Salt	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0001	
Seedless raisins, stewed and drained	$1\frac{1}{4}$ C.	$2\frac{1}{2}$ C.	3 $\frac{3}{4}$ C.	.0568	Add to the custard mixture. Cook for a few minutes; cool. Fill baked pie shell. Top with meringue. Brown at 375°F. for 12 minutes.
<u>MERINGUE:</u>					
Eggwhites, beaten stiffly	3	6	9	----	
Sugar	6 T.	$\frac{3}{4}$ C.	$1\frac{1}{8}$ C.	.0157	
Vanilla	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0003	
				<hr/> .5086	

RAISIN LEMON PIE

Source: The Test Kitchen

Date: February 2, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Raisins, seedless (6 oz.)	1 C.	2 C.	3 C.	.0454	Cook 5 minutes. Drain.
Water	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	----	
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	Cook over hot water stirring constantly until thick and clear. Cover and cook 10 minutes.
Salt	$\frac{1}{2}$ t.	1 t.	$1\frac{1}{2}$ t.	.0002	
Cornstarch	5 T.	10 T.	15 T.	.0085	
Water	2 C.	4 C.	6 C.	----	
Eggyolks, beaten	3	6	9	.1625	Add to above. Cook about 2 minutes stirring constantly. Remove from fire.
Lemon juice	3 T.	6 T.	9 T.	.0308	Add to above. Add raisins. Cool. Turn into pie shell. Top with meringue. Brown at 375°F. for 12 minutes.
Lemon rind, grated	1 t.	2 t.	3 t.	----	
<u>MERINGUE:</u>					
Eggwhites, beaten stiff	3	6	9	----	
Sugar	6 T.	$\frac{3}{4}$ C.	$1\frac{1}{8}$ C.	.0157	
Vanilla	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	$\frac{3}{4}$ t.	.0003	
				----- .3261	

RASPBERRY PIE (double crust)

Source: The Test Kitchen

Date: March 8, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie tin with pastry.
*Raspberries, frozen 3 C. (drained 10 minutes)		6 C.	9 C.	.4380	Combine all ingred- ients and fill unbaked pie shell.
Sugar	2/3 C.	1 1/3 C.	2 C.	.0279	
Tapioca	2 T.	4 T.	6 T.	.0068	
Salt	1/4 t.	1/2 t.	3/4 t.	.0001	
Butter	1 T.	2 T.	3 T.	.0203	Dot butter over fruit. Cover with upper crust. Bake at 450°F. for 10 minutes then at 350°F. for 30 minutes.
				.5764	

* About 2 $\frac{1}{2}$ frozen raspberries are needed to yeild 3 cups of berries.
Raspberries with a sugar content of 4 oz. to every 12 oz. of fruit were used.

RASPBERRY CHIFFON PIE
STRAWBERRY CHIFFON PIE

Source: The Test Kitchen

Date: March 10, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Gelatin	1½ T.	3 T.	4½ T.	.0340	Soak 5 minutes. Dissolve over hot water.
Cold water	6 T.	3/4 C.	1 1/8 C.	----	
Strawberries* (frozen pulp and juice)	2 C.	4 C.	6 C.	.2940	Combine with the gelatin. Cool until it begins to congeal.
Salt	¼ t.	½ t.	¾ t.	.0001	
Eggwhites, beaten stiff	1	2	3	.0271	Beat sugar slowly into the eggwhites. Fold into the straw- berries. Chill again until partially set.
Sugar	2 T.	4 T.	6 T.	.0053	
Whipping cream	½ C.	1 C.	1½ C.	.1400	Whip cream until stiff. Fold into the straw- berry mixture. Turn into pie shell. Chill thoroughly until ready to serve. Top with whipped cream.
<u>TOPPING:</u>					
Whipping cream, whipped	½ C.	1 C.	1½ C.	.1400	
Sugar	1 T.	2 T.	3 T.	.0026	
Vanilla	1/8 t.	¼ t.	3/8 t.	.0002	
				----- .6850	

* Strawberries must be defrosted. Fresh, mashed and sugared berries may also be used.

NOTE: The same recipe may be used for Raspberry Chiffon Pie (fresh or frozen)
Cost .6100.



RASPBERRY GLACE PIE

Source: The Test Kitchen

Date: March 8, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Raspberry juice	1 C.	2 C.	3 C.	----	Combine and cook until thick and clear, stirring constantly. Remove from fire.
Sugar	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.0210	
Salt	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0001	
Cornstarch	2 T.	4 T.	6 T.	.0034	
Gelatin	$\frac{1}{2}$ T.	1 T.	$1\frac{1}{2}$ T.	.0113	Soak 5 minutes. Dissolve in hot juice. Chill until it begins to congeal.
Water, cold	2 T.	4 T.	6 T.	----	
Raspberries, * drained 20 minutes	2 C.	4 C.	6 C.	.3285	Fold berries into partially congealed juice. Turn into baked pie shell. Chill thoroughly until ready to serve. Top with whipped cream.
<u>TOPPING:</u>					
Whipping cream	$\frac{1}{2}$ C.	1 C.	$1\frac{1}{2}$ C.	.1400	
Sugar	1 T.	2 T.	3 T.	.0026	
Vanilla	$\frac{1}{8}$ t.	$\frac{1}{4}$ t.	$\frac{3}{8}$ t.	.0002	
				----- .5488	

* Frozen (defrosted) or fresh, crushed and sugared berries can be used.

RHUBARB PIE (double crust)

Source: The Test Kitchen

Date: March 7, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Pastry for double crust	1	2	3	.0833	Line a 9" pie pan with pastry.
Fresh diced rhubarb	1 qt.	2 qt.	3 qt.	.2625	Combine dry ingred- ients and mix with rhubarb. Fill unbaked pie shell.
Sugar	1 $\frac{1}{2}$ C.	3 C.	4 $\frac{1}{2}$ C.	.0629	
Flour	6 T.	3/4 C.	1 1/8 C.	.0060	
Salt	$\frac{1}{4}$ t.	$\frac{1}{2}$ t.	3/4 t.	.0001	
Butter	1 T.	2 T.	3 T.	.0203 <hr/> .4351	Dot with butter. Cover with upper crust. Bake at 450°F. for 10 minutes then at 350°F. for 30 minutes.

NOTE: The cost using frozen rhubarb is .3916.

Use 3 C. or 1 $\frac{1}{2}$ frozen rhubarb and only one cup sugar.

STRAWBERRY GLACE PIE

Source: The Test Kitchen

Date: March 10, 1950

INGREDIENTS	1 PIE	2 PIES	3 PIES	COST PER PIE	PROCEDURE
Baked pie shell	1	2	3	.0417	9" pie shell.
Strawberry juice	1 C.	2 C.	3 C.	----	Make a paste of the cornstarch, salt and water. Add to the hot juice and cook until thick and clear stirring constantly
Cornstarch	2 T.	4 T.	6 T.	.0034	
Cold water	2 T.	4 T.	6 T.	----	
Salt	1/8 t.	1/4 t.	3/8 t.	.0001	
Gelatin, plain	1/2 T.	1 T.	1 1/2 T.	.0113	Soak 5 minutes; dissolve in hot juice. Chill mixture until it begins to congeal.
Water, cold	2 T.	4 T.	6 T.	----	
Strawberries,* drained 20 minutes	2 C.	4 C.	6 C.	.4410	Fold berries into chilled and congealed juice. Turn into pie shell. Chill until ready to serve-- about 2 hours. Top with whipped cream.
<u>TOPPING:</u>					
Whipping cream	1/2 C.	1 C.	1 1/2 C.	.1400	
Sugar	1 T.	2 T.	3 T.	.0026	
Vanilla	1/8 t.	1/4 t.	3/8 t.	.0002	
				----- .6403	

* Strawberries should be frozen (defrosted) or fresh, crushed and sugared.



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