

THESIS

Dietary Studies

Flora Rose
1904

Dietary Studies

The art of feeding has long been a feature of civilization, but scientific feeding is of recent date and may be said to be still in its infancy. A dietary standard is now in acceptance which is the result of observation of established habits rather than experiment on further possibilities. While we may have cause later to reject the standard, for the present it is useful to us as a means of comparison and a guide toward better methods. For those who do not understand what is meant by a dietary standard the following explanation may clear a way.

Food bears a definite and vital relation to the growth and activities of the body, -it is that which when taken into the body is capable of building new body tissue and repairing waste, or it furnishes material from which to produce heat and nervous and muscular work. From one standpoint, the value of a food is reckoned by the amount of heat it is capable of yielding, and it is a simple process to determine the heat value of any food. The heat producing power of any substance is measured in calories or heat units, and a calorie is the amount of heat which is required to raise the temperature of one kilogram of water one degree Centigrade. It has been found by actual experiment that one gram of proteid has a calorie or heat value of about 4.1, that it is capable, when burned, of raising the temperature of one kilogram of water 4.1 degrees Centigrade;

1 gram of carbohydrate has a calorie value of about 4.1 and 1 gram of fat has a calorie value of about 9.3.

Thus the composition of a food is the determining factor of its fuel value, take milk as an example. It has an approximate composition of:

Water.....	87.7%
Proteid.....	3.3%
Fat.....	4.0%
Carbohydrate.....	5.0%

1 gram of milk would therefore yield for

Proteid	.033 x 4.1 calories	=	.135 calories
Fat	.04 x 9.3 calories	=	.372 calories
Carbohydrate	.05 x 4.1 calories	=	.205 calories

Total			.712

The calorie value of 403 grams or one pound of milk is about 312.

The body may be compared to an engine requiring for its daily expenditure of energy an equivalent supply of fuel. Here the comparison must end, for fuel supplied to the body must serve not only to produce energy but must furnish building material to repair the constant tissue waste. All organic foods may be burned in the body so give their yield of energy, but only those food principles which contain the element nitrogen, and of these only the proteids are capable of becoming a part of living tissue. A simple food classification will aid in

understanding this point.

1- Organic Foods

a-Nitrogenous

1^a Proteids

2^a Albuminoids, etc.

2 Non-nitrogenous

a-Fats & Oils

β-Carbohydrates

1^β Sugars

2^β Starches

Proteid--nitrogenous, organic food principle, is a substance absolutely essential to the continuation of the living tissue of the body and if the body is supplied with proteid in too small amounts or deprived of it entirely, a condition of malnutrition first results and death follows, due to tissue starvation. The non-nitrogenous food principles, fats and oils and carbohydrates, which imply sugars and starches, can serve only as a source of energy, and any organism fed solely upon these must inevitably perish.

It is possible that proteid alone may meet the needs of the body for fuel and building material, but to follow such a course would be manifestly unwise. Proteid is a rarer and more expensive food product than either fat or carbohydrate and hence would make an extravagant form of fuel. The human body has been evolved to meet the conditions of a varied food supply and

too exclusive use of proteid taxes an organism having among its functions the power to care for a variety of foods.

The amount of proteid which may supply the daily needs of the body without over-taxing it, is considered to bear a definite relation to the aggregated amounts of fat and carbohydrate supplied. It is the province of the dietary standard to measure the amount of fuel required daily to run the human machine and to furnish the factor which shall determine the ratio of proteid fuel to fat and carbohydrate fuel, called the nutritive ratio.

In gaging the adaptability of a certain food or dietary, calorie value and nutritive ratio are thus used as a basis of operation. The nutritive ratio is determined as follows:

Milk contains 3.3% protein, 4% fat, 5% carbohydrate and since 1 gram of fat yields 9.3 calories, fat furnishes about $2 \frac{1}{4}$ times as much energy as either proteid or carbohydrate, so, energy as furnished by proteid is to the energy as furnished by the fat plus carbohydrate as 3.3 is to $4 \times 2 \frac{1}{4}$ plus 5 or, as 3.3 is to 14 or as 1:4.2. Hence the nutritive ratio of milk is 1:4.2, that is, to every calorie that is furnished by proteid there are 4.2 calories furnished by fat and carbohydrate.

It is patent that a dietary standard must be a scale of sufficient range to adjust itself to the varying needs of the individual. There is much difference of opinion among the various authorities as to such a scale, but for practical purposes

any one may be accepted for after all the individual consumer has the last word. The nutritive ratio as advocated by different authorities varies as 1:4.5 up to 1:7. The following scale of calorie values is a fair average to use in making dietary studies:

1. Man-sedentary in habit requires daily 2500 calories
2. Man_very light work requires daily 2631 calories
3. Man-moderate muscular requires daily 3121 calories
4. Man-severe muscular requires daily 3659 calories
5. Man-hard labor requires daily 5203 calories
6. Woman under conditions as above requires .8 as much as the man.
7. Old man requires daily 2381 calories
8. Old woman requires daily 1875 calories
9. Child under 2 years requires .3 of food of man at moderate work.
10. Child of 3 to 5 requires .4 of food of man at moderate work.
11. Child of 6 to 9 requires .5 of food of man at moderate work.
12. Child of 10 to 13 requires .6 of food of man at moderate work.
13. Girl of 14 to 16 requires .7 of food of man at moderate work.
14. Boy of 14 to 16 requires .8 of food of man at moderate work.

One of the most considered problems of the day is the cost of living. and as food is a first essential to living, and limited means a more general condition than wealth, the question of cost of food is of prime importance to the average individual. It is of equal importance that the food which has cost in the largest number of cases the major part of the monthly income

should as far as possible be made to meet the needs of the individual.

It is not within the scope of this paper to discuss dietaries of the very poor, and I have attempted to consider only the dietaries where the cost is modest but well within the life limit.

In many institutions, boarding halls and families where the table must be supplied at a modest cost there is constant complaint either of character, quality or kind of food and the complaint is usually met with the silencing argument: "What more can be expected for the money?" Cost is too intrusive and persistent a barrier to be overlooked and it is a factor of limitation to a certain variety of foods but it is insufficient excuse in the general run of bad dietaries. The following dietary studies were made in the effort to show the purchasing power of a dollar and prove that a dietary may be furnished to answer all dietary requirements at a very moderate cost.

The first dietary under consideration was furnished by a boarding hall run in connection with an educational institution for the benefit of non-resident students.

There were thirty-three adults living in the hall, of whom four were domestic servants, two were instructors in the institution, two were middle aged women, members of an instructor's family and the remainder were students, one half of whom were pursuing work along the line of Domestic Science. The average

age was twenty-two years and the average food requirements, considering variations in exercise, occupation and individual conditions were those for a woman at moderate muscular work, that is, food sufficient in amount to give a daily yield of about 2496 calories.

The condition of the students and the amount of food purchased and consumed by them aside from the hall dietary indicated some failure on the part of the hall dietary to meet required standards. One of the Domestic Science students in an attempt to locate the trouble collected the following data under the heading: "Is it Possible to Furnish a Dietary Which Shall Accord with Dietary Standards at a Moderate Cost and Does the Average Institution Furnish Such a Dietary?" The conclusions to be drawn from such accumulated data were awaited with much interest as the moderate cost of living in the hall had ever been given as the excuse for poor conditions.

The data was collected as follows: the menus were noted from meal to meal for a period of five days, and a careful account was kept of the amounts and costs of all materials used. The calorie value and nutritive ratio were then found, and as found seemed to be a conclusive argument in the affirmative. Unfortunately under the conditions then existing it was impossible to make any record of kitchen and table wastes and the conclusion was only tentative, at best, half drawn. One thing it had proved, however,

that the average institution could furnish a dietary which should meet the requirements of the dietary standard at a moderate cost.

A year later under somewhat changed conditions it became possible to verify the experiment. Careful observation of kitchen methods, proved beyond a doubt that the dietary as furnished really failed to meet requirements. It would be safe to say that of the materials as measured for use, at least one third in use amount escaped consumption either through inaccuracies in over-planning and hence loss of much perishable material, or through table waste due to indifferent preparation. In this case the failure was due not to the limit in expenditure, for the monthly allowance warranted higher figures than are given in the tables, but to incompetence on the part of those planning, preparing and overseeing.

Thursday

Breakfast

Oatmeal
Scrambled Eggs
Pop-overs Coffee

Lunch

Cocoa Rolls
Cold Meat
Remnants of
Vegetables

Dinner

Beefs teak
Boiled Onions
Mashed Potatoes
Pineapple Ice

Friday

Parched Wheat
Minced Meat
on Toast
Oatmeal Gems Coffee

Hash
Tomato Cream
Toast
Cocoa

Boiled Halibut
Egg Sauce
Boiled Beets
Mashed Potatoes
Strawberry Shortcake

Saturday

Sausages
Apple Sauce
Graham Gems
Coffee

Cannelon of Beef
Peas
Brown Bread

Corned Beef
Mashed Potatoes
Spinach
Queen Pudding

Sunday

Shredded Wheat
Cold Corn Beef
Biscuit
Coffee

Baked Mackerel
Baked Potato
Cakes
Rhubarb Sauce

Roast Lamb
Mashed Potato
Lettuce
Walnut Jelly

Monday

Lamb Croquettes
Hominy
Syrup
Rolls
Coffee

Spinach Soup
Crisped Crackers
Cheese
Rhubarb Sauce

Roast Veal-
Dressed
Potatoes
Cucumbers
Chocolate Corn-
Starch Pudding

Bread and butter included in all the above meals.

<u>Materials</u>	<u>Amt. Used.</u>	<u>Cost</u> <u>per lb.</u>	<u>Entire</u> <u>Cost.</u>	<u>Pro-</u> <u>tein.</u>	<u>Fat.</u>	<u>Carbo-</u> <u>hydrate</u>	<u>Calories.</u>
Butter	27.5 lb.	\$.245	\$6.74	.275	23.37		93775.0
Sugar	24.83	.048	1.19			24.83	43452.5
Milk	120.	.023	2.82	3.96	4.8	6.00	37200.0
Eggs	19.5	.25	1.78	2.25	1.6		10985.0
Flour(white)	44.	.016	1.51	9.7	1.32	49.49	113980.0
Flour(ghraham)	15.	.016	.66	5.8	.967	31.4	72380.0
Beef(steak)	15.	.15	2.25	2.66	1.79		12460.0
Corned-Beef	23.5	.10	2.35	3.07	5.11		26767.5
Beef(cannelon)	6.	.15	.90	.82	.49		3575.0
Bread(brown)	8.	.05	.40	.27	.09	2.35	5200.0
Rhubarb	18.5	.025	.46	.18		1.47	2950.0
Peas(canned)	8.	.09375	.75	.28		.78	1880.0
Potatoes	75.	.0192	1.44	1.08		8.82	19600.0
Spinach	12.	.05	.60	.25		.38	1140.0
Lemons	5.		.155				
Shredded Wheat	1.5		.24	.18	.03	1.13	2520.0
Mackerel	8.5		1.44	.51	.21		1850.0
Lamb(leg)	29		4.35	3.81	3.26		20640.0
Lettuce	4.75		.3125		Unimportant		
Vinegar	Accessory						
Walnuts	2		.26	.07	.26	.07	1250.0
Gelatin	1.5		.113				830.0
Hominy	2		.08	.18	.03	1.50	3270.0
Crackers.	4		.28	.38	.36	2.92	7500.0

<u>Materials</u>	<u>Amt. Used</u>	<u>Entire Cost</u>	<u>Pro-tein</u>	<u>Fat</u>	<u>Carbo-hydrate</u>	<u>Calories</u>
Corn Starch	1.25	\$.175			1.12	2093.0
Veal	32.5	5.20	4.5	2.3		18125.0
Rolled Oats	2.	.108	.334	.146	1.324	3600.0
Cocoa	.5	.22	1.108	.145	.189	1080.
Onions	15.	.50	.19		1.20	2565.0
Pineapple (can)	2.5	.26	D a t a unobtainable			
Ice	150.	.37				
Crackers	2.	.36	.19	.18	1.46	3750.0
Parched Wheat	2.	.117	.24	.03	1.50	3360.
Tomatoes (can)	4.	.204	.04		.16	380.
Halibut	12.	1.56	1.53		.44	4750.0
Beets	5.	.625	.04		.30	640.
Strawberries	4.	.84	.004		.28	600.
Apples (dried)	3.75	.49	.05		2.64	4740.0
Sausages	3.5	.375	.455	1.547		7262.5
Totals		\$42.40	43.40	48.475	141.313	536150.0

Average number of persons served per day.....35

Calories per capita per day.....3063.7

Cost per capita.....\$.242

Cost per capita as paid.....\$.285

Nutritive Ratio.....1 : 5.6

The second dietary is a purely theoretical study, made on paper alone. It was conceived at the time the previous dietary was under examination and had as its object a demonstration of dietary possibilities at a moderate cost. The basis of the dietary was an assumption of knowledge and intelligence on the part of the housewife, thus eliminating the considerable factor of kitchen and table wastes. The imaginary family consisted of six members- the mother and father and four children aged respectively two, five, thirteen and sixteen. The food requirements for such a family would be reckoned as being about those of five men at average muscular work.

Sunday

Breakfast Menu

Baked Beans
Dry Toast

Brown Bread
Coffee

Milk

Dinner Menu

Roast Beef
Sliced Bananas

Brown Potatoes
With Lemon Juice

Brown Gravy

Supper Menu

Old Fashioned Hominy
Cheese

Milk
Bread

Butter

Monday

Breakfast Menu

Oatmeal
Broiled Salt Fish
Coffee

Whole Milk
Baking Powder Biscuit

Luncheon Menu

Milk Toast
Bread & Butter

Stewed Prunes
Milk

Dinner Menu

Lucanian Eggs (Hard cooked, baked with cheese macaroni,
bread crumbs and white sauce.)

Bread & Butter

Gingerbread

Tuesday

Breakfast Menu

Hasty Pudding
Egg Vermicelli
Butter

Whole Milk
Bread
Coffee

Luncheon Menu

Cream of Bean Soup
Apple Sauce

Bread & Butter
Gingerbread

Dinner Menu

Broiled Hamburg Steak	Riced Potatoes
Creamed Onions	Bread & Butter
Chocolate Irish Moss Blanc Mange	

Wednesday

Breakfast Menu

Cracked Wheat	Whole Milk
Bread & Butter	Cheese Fondue on Toast
	Coffee

Luncheon Menu

Cocoa Shells	Bread & Butter
Milk	Molasses

Dinner Menu

Pot au Feu	Bread & Butter
Prune Shortcake	Whole Milk

Thursday

Breakfast Menu

Rollled Oats	Whole Milk
Creamed Codfish	Baked Potatoes
Bread & Butter	Coffee

Luncheon Menu

Hominy Sautéd	Molasses
Bread & Butter	Milk

Dinner Menu

Baked Hamburg	Mashed Potatoes
Brown Gravy	Bread & Butter
Mock Indian Pudding	Whole Milk

Friday

Breakfast Menu

Boiled Rice	Whole Milk
Bacon	Potato Cakes Sautéd
Fadge	Coffee

Luncheon Menu

Cream of Potato Soup Bread & Butter
Evaporated Apricot Sauce

Dinner Menu

Baked Stuffed Haddock Drawn Butter Sauce
French Fried Potatoes Bread
Butter Lemon Jelly

Saturday

Breakfast Menu

Cracked Wheat Whole Milk
Cheese Soufflé Bread
Butter Coffee

Luncheon Menu

Meat with Brown Sauce served in Timbales
Stewed Prunes Bread

Butter

Dinner Menu

Baked Beans Brown Bread
Bread Butter

Rice Pudding

Table for Calculating Calorie Yield and Nutritive Ratio. Four Days
 Considered: Saturday, Sunday, Monday, Tuesday.

Materials	Number pounds used	Percentage comp. per lb.			Calories per pound	No. lbs. in entire amt.			Calories entire amount
		Protein	Fat	Carb.		Protein	Fat	Carb.	
Bread - - - -	15	9.1	1.6	53.3	1225.00	1.3650	.24000	7.9950	18375.0
Oleomargarine - - -	3	1.2	83.0	---	3525.00	.0360	.24900	---	15575.0
Milk (skim) - - -	20	3.4	.3	5.1	170.00	.6800	.06000	1.0200	3400.0
Milk (whole) - - -	8	3.3	4.0	5.1	325.00	.2640	.32000	.4080	2600.0
Beans - - - -	3	18.1	1.5	65.9	1625.00	.5430	.04500	1.9770	4875.0
Pork - - - -	1 1/2	5.1	76.7	---	3327.00	.0250	.38300	---	1663.0
Macaroni - - - -	1 1/9	13.4	.9	74.1	1665.00	.0150	.00100	.0820	185.0
Molasses - - - -	5/8	2.4	---	69.3	1290.00	.0150	---	.4330	806.0
Cornmeal - - - -	1 1/3	9.2	1.9	75.4	1655.00	.1196	.02470	.9802	2151.5
Cheese - - - -	1 1/2	25.9	33.7	2.4	1950.00	.1290	.16800	.0120	975.0
Rye Meal - - - -	6 1/13	13.6	2.0	71.5	1665.00	.0630	.00900	.4590	768.0
Entire Wheat - - -	1 1/2	13.8	1.9	71.9	1675.00	.0690	.00900	.3590	837.5
Rump - - - -	3	20.9	13.7	---	965.00	.6270	.41100	---	2895.0
Flour - - - -	1 6/10	11.4	1.0	75.0	1650.00	.1824	.00160	1.2000	2640.0
Potatoes - - - -	5 1/4	1.8	.1	14.7	310.00	.0945	.00525	.7717	1627.5
Bananas - - - -	1 1/2	1.3	.6	22.0	460.00	.0060	.00300	.1100	230.0
Lemon Juice - - - -	1 1/12	---	---	9.8	180.00	---	---	.0080	15.0
Hominy - - - -	6/7	8.3	.6	79.0	1650.00	.0710	.00500	.6800	1410.0
Neufchatel Cheese - -	1 1/4	18.7	27.4	1.5	1530.00	.0440	.06800	.0040	382.5
Oatmeal - - - -	9/16	16.1	7.2	67.5	1860.00	.0905	.04050	.3790	1046.0
Salt Fish - - - -	1	25.0	.3	---	410.00	.2500	.00300	---	410.0
Prunes - - - -	1	.9	---	18.9	370.00	.0090	---	.1890	370.0
Sugar - - - -	9/16	---	---	100.0	1860.00	---	---	.5600	1046.0
Eggs - - - -	1 1/4	13.4	10.5	---	720.00	.1675	.13125	---	900.0
Apples - - - -	1/6	1.6	2.2	66.1	1350.00	.0526	.00360	.1101	225.0
Hamburg - - - -	2 1/2	20.8	11.3	---	865.00	.5240	.28200	---	2162.0
Onions - - - -	1 1/2	1.6	.3	9.9	225.00	.0240	.04500	.1480	337.0
Chocolate - - - -	1/16	12.9	48.7	30.3	2860.00	.0070	.03040	.0200	178.0
Wheat - - - -	9/16	11.1	1.7	75.5	16.85	.0620	.00900	.4240	945.0
Totals - - - -	-----	-----	-----	-----	-----	5.4811	5.96700	18.2770	64030.0

Nutritive Ratio: $5.967 \times 2 \frac{1}{4} = 13.42575 + 18.277 = 31.702 \div 5.48 = 5.7$, or 1:5.7.

Calories supplied in 4 days, 64030.

Calories supplied in 1 day, 1600.75.

Calories supplied per capita in 1 day, 3201.5.

Number of persons served, equivalent to 5 adults.

Cost of food for entire week:

Sunday.....	\$1.25
Monday.....	.66
Tuesday.....	.75
Wednesday.....	.67
Thursday.....	.80
Friday.....	.75
Saturday.....	.68

Cost of food for entire week.....	\$5.56
Average cost per day.....	.795
Average cost per day per capita..	.159
Calorie Value per day per capita...	3201.5
Nutritive Ratio	1:5.7

The third dietary^{study} is a record of a series of dinners which were planned, purchased, prepared and served by members of the Junior Class of the Domestic Science Department of the Kansas State Agricultural College. The object of these dinners was to give to the individual an opportunity to test her ability to plan and prepare a meal which should accord with the dietary standard within a given cost. An allowance of one dollar for each dinner was made, the dinner to consist of not less than three nor more than five courses, to be furnished to six people, to furnish to each person served a calorie value not less than one third of the calorie value required daily by the woman at moderate muscular work and to have a nutritive ratio not to exceed 1 : 7.

Of the five dinners recorded:

Average nutritive ratio was 1:6

Average calorie value per capita for 1/3 day equal-
ed 1394 calories

Average cost of dinner \$.86

Average cost per capita \$.14

<u>Material</u>	<u>Amount</u>	<u>Cost</u>	<u>Pro-</u> <u>tein</u>	<u>Fat</u>	<u>Carbohydrate</u>	<u>Calories</u>
Asparagus	1/2	.05	.9	.1	1.65	23
Fish	1 1/4	.20	16.125	.875		338
Potatoes	2	.06	3.6	.2	29.4	770
Tomatoes	1 1/2	.15	1.35	.6	5.85	157
Lettuce	1/9	.03	.111	.22	.27	7
Butter	1/3	.083	.333	28.33		1136
Cream	1/2	.05	1.25	9.25	2.25	433
Bread	3/5	.03	5.52	.78	31.86	920
Milk	1	.02	3.3	4.	5.	310
Eggs	1/5	.02	2.6	1.8		144
Wafers	1/8	.03	1.4	.1	9.	240
Peaches	1	.0875	.7		10.8	220
Sugar	3/4	.0375			75.1	1313
Flour		.02				
Powdered Sugar						
Lemon	3/16					
Vinegar						
Salt						
Pepper		.05				
Mustard						
Vanilla						
Nutritive Ratio		.92	37.369	47.268	172.77	6079

Menu

Cream of Asparagus Soup	Croutons
Baked Carp-Dressing	Baked Potatoes
Tomato and Lettuce Salad	Wafers
Peach Whip	

<u>Material</u>	<u>Amt.</u>	<u>Cost</u>	<u>Protein</u>	<u>Carbo- Hydrate</u>	<u>Fat</u>	<u>Calories</u>
Sweet Potatoes	2 lb.	\$.08	.028	.438	.012	920
Pork-Ham	1 2/3	.21	.308		.27	1734
Bananas	3/4	.07	.006	.107	.003	225
Walnuts	1/6	.03	.008	.006	.0286	147.5
Strawberries	1	.20	.009	.07	.006	175
Cream	1	.10	.025	.45	.185	910
Sugar	1	.06		1.00		1860
Butter	1/2	.125	.425		.425	1802.5
Eggs	5/8	.05	.0581		.0581	397
Flour	1	.02	.01	.756	.01	1660
Vinegar	1/2 c	.005				
Salt						
Pepper						
Yeast		.01				
Vanilla						
Coffee	1/8	.04				
Total		1.00	.584	2.422	.9977	9831

Nutritive Ratio.....1 : 7

Menu

	Banana-Walnut Salad	Rusks
Roast Pork	Rusks and Butter	Sweet Potatoes
	Strawberries and Cream	Cake
	Coffee & Cake	

<u>Material</u>	<u>Amt.</u>	<u>Cost</u>	<u>Protein</u>	<u>Fat</u>	<u>Carbohydrate</u>	<u>Calories</u>
Bread & Crumbs	1 5/8 lbs	\$.03	13.9	11.86	86.2	1950
Milk	2	.05	6.6	8.	10.	620
Cream	1	.10	2.5	8.3	54.1	1430
Prunes	1/2	.05	.35		88.7	167
Eggs	3/8	.035	4.9	3.4		238
Butter	1/4	.0625	.025	21.25		852.5
Potatoes	2 1/4	.045	4.55	.025	23.1	664
Peas	1	.13	3.6	2.	9.8	235
Tomatoes	2	.13	1.08	.8	7.8	200
Veal	1 1/2	.20	30.05	11.25		1042.5
Crackers	1/10	.01	1.13	1.05	7.05	191
Coffee	1/8	.04				
Total		.8825	68.905	57.935	206.75	8590

Nutritive Ratio.....1 : 4.9

Menu

- Tomato Soup
- Crackers
- Veal Cutlets
- Mashed Potatoes
- Peas in Bread Boxes
- Bread and Butter
- Prune Soufflé
- Coffee

<u>Materials</u>	<u>Amount</u>	<u>Cost</u>	<u>Protein</u>	<u>Fat</u>	<u>Carbo- hydrate</u>	<u>Calories</u>
Potatoes	2 lb.	\$.05	3.	2.	28.	590
Lemons	1/2	.033	.4	3.3	2.9	72
Bananas	1 3/4	.10	1.2	.7	22.4	525
Meat	2 1/2	.20	39.7	13.2		1788
Prunes	1/2	.03	.4		8.7	168
Butter	1/2	.12	.5	40.4		1705
Cream	1/2	.05	1.2	8.8	2.2	433
Bread	2/3	.02	5.2	.8	36.4	800
Sugar	1	.06			100.	1860
Eggs	1/2	.05	6.4	4.4		368
Milk	3/8	.00	7/8 1.2	1.3	2.	116
Flour	1/2	.01	4.8	4.5	36.8	818
Crackers	1/8	.01	1.	1.4	8.5	241
Cheese	1 tspn.					
Salt	2 "	.01				
Baking Powder	2 "					
Coffee	1/8	.02				
Total	1 1/3	\$.78	65.0	78.8	246.1	9484

Nutritive Ratio 1:6.4

Menu

Banana Salad
Roast Beef

Cheesed Crackers
Riced Potatoes Gravy
Bread and Butter

Prune Souffle

Golden Cake

Coffee

<u>Material</u>	<u>Amount</u>	<u>Cost</u>	<u>Protein</u>	<u>Fat</u>	<u>Carbo- hydrate</u>	<u>Calories</u>
Salmon	1/2 lb.	\$.10	9.75	3.75		340
Potatoes	2 1/2	.075	4.5	2.5	36.75	775
Butter	1/2	.12	.5	42.5		1802.5
Milk	2 1/2	.125	8.25	10.	12.5	812.5
Lemon	1/2	.033	.35	.25	2.95	72.5
Egg	1/8	.01	1.67	1.31		360
Gelatin	1/8	.065	11.42	.015		213.1
Cheese	3/8	.055/8	9.52	1.35	11.06	850
Cream	1/2	.05	1.2	9.25	2.25	455
Cocoa	1/2	.025	1.8	2.40	3.14	110
Sugar	5/8	.032			67.5	235
Bread	1 1/2	.055	13.65	2.4	79.95	1837.5
Flour						
Pepper		.01				
Salt						
Lard						
Total		\$.772	62.61	75.725	216.20	7863.1

Nutritive Ratio 1:6

Menu

- Salmon Croquettes
- Welch Rarebit in Bread Boxes
- Lemon Jelly with Whipped Cream
- Potato in Half Shell
- Buns and Butter

The fourth dietary study is a record of a series of meals which were planned, purchased prepared and served by the Senior Short Course Students of the Domestic Science Department of the Kansas State Agricultural College. The object in serving these meals was to give the individual a broader opportunity to learn the cost of food, the value of care in food preparation and the possibilities of a varied dietary within a limited cost. The students conducting the experiments were careful in the preparation of the food as served that the factor of kitchen and table waste was practically eliminated. Individual portions were carefully estimated and a meal planned as a multiple of individual needs. Unfortunately the students were not sufficiently advanced to enable them to make estimates of calorie values and nutritive ratios though this was somewhat overcome as indicated above. Each student was given \$2.25 to cover the cost of four meals, such meals to consist of one breakfast, two dinners, and one luncheon--the meals to be so planned as to furnish sufficient material to serve four paying guests and the three students aiding in the experiment. There are many small inaccuracies impossible of correction in the records as given but in the average these would be immaterial.

In the fifteen experiments recorded:

Average cost of each 4 meals equaled \$1.93

Average cost of each 1 meal equaled \$.483

Average cost of 1 meal for 7 people equaled \$.483

Average cost of 1 meal for 1 person equaled \$.069

Breakfast Menu

Cracked Wheat	Oranges	Stewed Figs
Bread Omelet		Corn Meal Muffins
Coffee		Apple Jelly

Cost

4 Oranges.....	\$.06
1 c. Cracked Wheat.....	.025
1/4 lb. Figs.....	.0375
4 Eggs & Bread Crumbs.....	.07
1 c. Coffee.....	.05
1 Glass Jelly.....	.05
Cream & Milk.....	.06
Muffins.....	.08
Butter.....	.08
Total	\$.5125

Dinner Menu

Chicken Soup with Rice and Crackers		
Roast Chicken with Dressing		
Brown Sauce	Cranberry Jelly	Butter
	Mashed Potatoes	Creamed Cabbage
Parker House Rolls	Nut-Celery Salad	on Lettuce Leaf
	Ice Cream	Coffee
		Marguerites

Cost

2 tbspn. Rice.....	\$.005
Chicken.....	.60
Dressing.....	.02
6 Crackers.....	.01
Cranberry Jelly.....	.06

Brown Sauce.....	.01
Mashed Potatoes.....	.035
Cabbage & White Sauce.....	.08
Parker House Rolls.....	.03
Lettuce.....	.025
Nut & Celery Salad.....	.11
1 c. Coffee.....	.05
Butter.....	.10
Cream and Milk.....	.03
Marguerites.....	.03
Total	\$1.095

Luncheon Menu

Potato Soup	Crackers
Chicken Croquettes	Apples
Brown Sauce	Baked Sweet Potatoes
Cranberry Jelly	Scalloped Cabbage
Chocolate Sauce	Ice Cream
	Marguerites

Coffee

Cost

Soup .....	.025
Sweet Potatoes.....	.05
Chicken Croquettes.....	.05
Apples.....	.04
1 c. Coffee.....	.05
Cream & Milk.....	.03
Bread.....	.02
Butter.....	.10
Crackers.....	.005
Ice Cream.....	.18

Breakfast Menu

Cream of Wheat	Oranges	Cream and Sugar
Waffles	Hamburg Steak on	Toast
	Coffee	Maple Syrup

Cost

Oranges.....	\$.06
1 1/2 c. Cream of Wheat. ....	.0495
Sugar(1c.).....	.03
Thin Cream(1c.).....	.05
Hamburg Steak(1 lb.).....	.10
White Sauce	
1/2 tbspn Butter.....	.0075
1/2 " Flour.....	.0004
1/2 c. Milk.....	.005
Bread.....	.008
Butter.....	.03
Coffee.....	.0375
Total	.3779

Dinner Menu

Tomato Soup	Croutons
Roast Beef	Brown Gravy
	Sweet Potatoes
Lemon Jelly	Coffee
Bread	Butter
	Stuffed Onions

Cost

Tomatoes(1/4 can).....	\$.025
Milk(2c.).....	.02

1 1/2 tbspn Butter.....	01
1 tspn Sugar.....	0006
Roast.....	25
Brown Gravy	
4 tbspn Flour.....	001
2 tbspn Butter.....	0008
1 c. Milk.....	01
Sweet Potatoes.....	04
Stuffed Onions	
Onions.....	04
Meat for Dressing.....	01
Coffee.....	0375
Lemon Jelly	
1 c. Sugar.....	03
1 tbspn Gelatin.....	0304
1/2 Lemon(juice).....	0104
Bread & Croutons.....	03
Cream.....	02
Butter.....	04
Total	\$.6569

Dinner Menu

- | | | |
|-------------------|------------------------|-----------------|
| Chicken(steamed) | Chicken Soup | Egg Sauce |
| Mashed Potatoes | Apple-Celery-Nut Salad | Apple Jelly |
| Vanilla Ice Cream | Kisses, Coffee | Chocolate Syrup |

Cost

Chicken.....	305
Egg Sauce.....	04
Potatoes.....	025

Milk & Butter Seasoning.....	\$.01
Apple Jelly.....	.045
Salad	
Apples.....	.025
Celery.....	.02
Nuts.....	.02
Dressing.....	.0225
Vanilla Ice Cream	
Milk(1 qt.).....	.04
Cream.....	.05
Eggs.....	.03
Vanilla.....	.005
Sugar(3/4 c.).....	.0225
Chocolate Syrup	
Sugar(1 c.).....	.03
Chocolate(2 oz.).....	.05
Kisses	
Sugar(1 c.).....	.03
Flour & Egg.....	.014
Nuts.....	.016
Lettuce.....	.0125
Parsley.....	.0033
Coffee.....	.0375
Bread.....	.02
Butter.....	.038
Cream for Coffee.....	.02
Total	.9313

Luncheon Menu

Chicken Salad.	Potato Croquettes	Cheese Straws
Meat Soufflé		Coffee
Coraline Pudding		Whole Wheat Bread
	Butter	

Cost

Chicken Salad	
(Chicken Left over)	
Celery.....	\$.02
Dressing.....	.0225
Cheese Straws.	
Cheese & Butter.....	.015
1 c. Flour.....	.005
Potato Croquettes	
1/2 egg.....	.0083
(Potato and bread crumbs left over)	
Meat Souffle	
1 tspn Butter.....	.007
(Meat left over)	
1 c. Milk.....	.01
2 Eggs.....	.03
Cerealine Pudding	
Cereal left over	
1 c. Milk.....	.01
1/2 c. Molasses.....	.016
1 tbspn Butter.....	.005
Coffee.....	.0375
1/2 Egg.....	.0083
Butter.....	.03
Cream.....	.025
Bread.....	.015
Total	.2696
Net Total	\$2.245

Breakfast Menu

Cracked Wheat	Cream
Sugar	Creamed Eggs on Toast
Rolls	Butter
Coffee	Syrup

Waffles

Cost

Oranges (2).....	\$.04 1/6
Cracked Wheat(1 c.) ...	.01 1/2
Cream(1 c.).....	.05
Eggs(4).....	.06 2/3
Milk(2 c.).....	.02
Flour(2 tspn.) .....	.00 1/4
Butter(8 tspn.).....	.06 1/4
Coffee(1 c.).....	.02
Rolls.....	.01
Toast.....	.01
Total	\$.30 1/3

Dinner Menu

Steamed Chicken	Egg Sauce
Browned Potatoes	Apple Jelly
Bread	Butter
Coffee	Cream
Sugar	Ice Cream
Chocolate	Kisses

Cost

Chicken & Soup.....	\$.305
Eggs(3).....	.04
Potatoes(3 lb.).....	.03

Flour(2 tblspn.)	\$.0075
Butter(4 1/2 tbs pn.)	.04
Bread.....	.015
Sugar(1 c.).....	.01
Cream(2 c.).....	.10
Milk(2 c.).....	.02
Eggs(2).....	.03
Chocolate(2 oz.).....	.05
Coffee.....	.02
Total	\$.6875

Dinner Menu

Tomato Soup	CCannelon Meat
Gravy	Mashed Potatoes
Scalloped Tomatoes	Coffee
Cream	Sugar
Bread	Butter
Prune Soufflé	Whipped Cream

Cost

Tomatoes(2 c.).....	\$.08
Milk(2 c.).....	.02
Meat(2 lb.).....	.25
Potatoes(2 1/2 lb.).....	.02
Butter(8 tblspn.).....	.06 1/4
Bread Crumbs(1 c.).....	.00 1/4
Eggs(3).....	.05
Prunes(20).....	.04
Coffee(1/2 c.).....	.02
Sugar(1/2 c.).....	.01 1/2

Cream.....	\$.10
Bread.....	.01
Total	\$.67

Luncheon Menu

Chicken Salad	Cheese Straws
Salmon Soufflé	Potato Croquettes
Whole Wheat Bread	Butter
Coffee	Cream
Sugar	Cereal Pudding

Whipped Cream

Cost

Chicken (Left Over from Dinner)	
Potato (Left Over from Dinner)	
Vinegar.....	\$.0075
Eggs (2).....	.03
Flour (1/2 c.).....	.0037 1/2
Butter (8 tbspn.).....	.0625
Salmon (1/2 cad).....	.06
Cream (1 cup).....	.05
Bread.....	.03
Milk (1 c.).....	.01
Sugar (1/2 c.).....	.015
Coffee (1/2 c.).....	.02
Total	\$.2887 1/2
Net Total	\$1.9495 5/6

Breakfast Menu

Oranges		Cereal
Meat on Toast		Coffee
Rolls		Waffles

Jelly

Cost

Flour(2 1/2 c.).....	\$.0175
Sugar(1 1/2 c.).....	.045
Salt & Pepper.....	.0025
Milk(3 1/8 c.).....	.03 1/8
Butter(5/16 lb.).....	.09 3/8
Oranges(2).....	.03 1/3
Eggs(2).....	.02 5/6
Coffee(1 c.).....	.07
Rolled Oats (1 1/2 c.).....	.015
Rolls & Meat.....	.02
Meat.....	.01 \$.09
Meat & Gravy.....	.03
Cream.....	.03
Total	\$.42 2/3
Left Overs Sold	.09
Total	\$.33 2/3

Dinner Menu

Veal Birds	Mashed Potatoes
Creamed Onions	Bread & Butter
Coffee	Snow Pudding & Sauce

Cost

Flour(2 1/2 c.)..... \$.0175

Sugar(1 1/2 c.).....	\$.04 1/2
Salt & Pepper.....	.001/4
Milk(3 1/8 c.).....	.03 1/8
Butter(5/16 lb.) .....	.09 3/8
Eggs(2).....	.02 5/6
Coffee(1c.).....	.07
Lemons(2).....	.03 1/3
Gelatin(1 tbspn.).....	.03 1/8
Potatoes.....	.03
Onions(2).....	.02
Veal.....	.15
Cream.....	.03
Total	\$.58 5/6

Dinner Cost

Flour(2 1/2 c.)	\$.01 3/4
Sugar(1 1/2 c.) .....	.04 1/2
Salt & Pepper.....	.00 1/4
Milk(3 1/8 c.).....	.03 1/8
Butter(5/16 lb.) .....	.09 3/8
Eggs(2).....	.02 5/6
Coffee(1 c.).....	.07
Potatoes.....	.03
Lima Beans(1 c.).....	.03
Apples(6).....	.06
Apples Jelly.....	.03

Lady Fingers	
Cream.....	\$.03
Chicken.....	.40
Total	\$.86 5/6

Dinner Menu

Roast Chicken	Dressing
Potatoes	Lima Beans
Gravy	Coffee
Jelly	Rolls
Apple Float	Lady Fingers

Luncheon Menu

Bean Soup	Crackers
Chicken Soufflé	Mashed Potatoes
Cranberries	Rolls
Tea	Prune Jelly

Cost

Flour(2 1/2 c.).....	\$.01 3/4
Sugar(1 1/2 c.).....	.04 1/2
Salt & Pepper.....	.00 1/4
Milk(3 1/8 c.)..	.03 1/8
Butter(5/16 lb.) ..	.09 3/8
Eggs(2).....	.02 5/6
Prunes(3/4 lb.) ..	.06 1/4
Tapioca(1/2 c.) ..	
Cranberries.....	.05
Tea(4 tspn.).....	.03
Cream.....	.03
Potatoes.....	.01
Total	\$.37 1/12
Net Total	\$2.25 5/12

Breakfast Menu

Baked Apples	Cream & Sugar
Cream of Wheat	Powdered Eggs
Bread	Butter
Coffee	Cream & Sugar
Waffles	Syrup

Cost

Apples.....	\$.08
Sugar(1 c.).....	.03
Cream of Wheat(3/4 c.) .....	.02
Eggs(6).....	.10
Coffee(1/3 c.).....	.02
Milk.....	.02
Cream(1 1/4 c.) .....	.06
Bread.....	.015
1/4 lb.....	.06
Total	\$.40

Dinner Menu

Pea Salad	Cannelon of Beef
Brown Sauce	Mashed Potatoes
Scalloped Cabbage	Bread & Butter
Coffee	Cream & Sugar
Orange Cream	Orange Marmalade

Cost

Peas(1/2 can).....	\$.08
Cannelon of Bee f.....	.125
Potatoes(2 lb.) .....	.02
Cabbage(1/2).....	.03
Bread(1 loaf).....	.03
Orange(1).....	.015
Lettuce.....	.025
Butter(1/4 lb.) .....	.06

Egg(1).....	\$.01 1/2
Sugar(1/2 c.)....	.01 1/2
Cream(1 c.).....	.05
Coffee(1/3 c.).....	.02
Orange Marmalade .....	.01
Total	\$.39 1/2

Dinner Menu

Cream of Corn Soup	Roast Veal
Brown Sauce	Mashed Potatoes
Creamed Turnips	Bread & Butter
Coffee	Cream & Sugar
Prune Souffle	Cream

Cost

Corn(1/2 can).....	\$.07
Veal.....	.31
Potatoes(2 lb.).....	.025
Bread(1 loaf).....	.03
Butter(1/4 lb.).....	.06
Prunes(20).....	.03
Coffee(1/3 c.).....	.02
Milk(1 1/2 qt.).....	.06
Eggs(3).....	.05
Coffee(1/3 c.).....	.02
Total	\$.67 1/2

Luncheon Menu

Tomato Salad	Creamed Meat on Toast
Potato Croquettes	Spiced Peaches
Rolls	Butter
Cocoa	Cream & Sugar
Rebecca Pudding	Jelly & Cream

Costt

Tomatoes (1/4 can).....	\$.05
Meat Left over	
Potato Left Over	
Toast Left Over	
Rolls.....	.01 1/2
Butter.....	.06
Cocoa.....	.02 1/2
Lettuce Left Over	
Spiced Peaches.....	.09
Milk (1 1/2 qt.).....	.06
Cream (1/2 c.).....	.02 1/2
Total	\$.21 1/2
Net Total	\$1.69

Breakfast Menu

Stewed Apples	Egg Omelet
Pocketbook Rolls	Butter
Coffee	Waffles & Jelly

Cost

Apples.....	\$.03
Rolls.....	.015
Crumb Egg Omelet.....	.0732
Coffee.....	.0525
Cream, Sugar, Butter, etc.....	.181
Total	\$.3517

Dinner Menu

Cream of Potato Soup	Cannelon of Beef
Scalloped Cabbage	Baked Potatoes
Bread	Butter
Lemon Jelly	Whipped Cream

Coffee

Cost

Pork Steak.....	\$.20
Baked Apples.....	.05
Riced Potatoes.....	.045
Buttered Parsnips.....	.03
Rolls.....	.015
Cornstarch Molds.....	.06
Coffee.....	.025
Milk, Sugar, Cream, etc.....	.178
Total	\$.603

Luncheon Menu

Chicken Salad	Boston Baked Beans
Boston Brown Bread	Apple Purcupine
Marguerites	Whipped Cream

Cost

Boston Baked Beans ..	\$.078125
Boston Brown Bread..	.05
Coffee.....	.0525
Apples.....	.15
Marguerites.....	.06
Salad.....	.0866
Milk, Cream, Butter, etc.....	.181
Total	\$.658
Net Total	\$2.1488

Breakfast Menu

Oranges (sunflowers)	Baked Eggs
Cracked Wheat	Cream
Hot Rolls	Coffee

Cost

4 Oranges.....	\$.0425
6 Eggs.....	.11
1 c. Coffee.....	.03
Bread.....	.06
Butter.....	.18
Sugar.....	.06
Total	\$\$.3025

Dinner Menu

Pork Chops	Baked Apples
Baked Potatoes	Green Peas
Salad (cabbage)	Rice Pudding
Coffee	

Cost

Pork Chops.....	1...\$.15
Apples.....	.07
Potatoes.....	.015
Rice.....	.015
Raisens.....	.033
Coffee.....	.03
Total	\$\$.313

Dinner Menu

Roast Meat	Tomato Soup
Scalloped Cabbage	Salad (cabbage)
Hot Rolls	Butter
Bread Pudding	Coffee

Cost

Chicken.....\$.20
Potatoes.....015
Lady Fingers & Sherbert.....19
Sugar......06
Coffee......03
Butter.....15
Bread......03
Vinegar......02
Total \$.695

Luncheon Menu

Creamed Chicken
Hot Biscuits
Waldorpha Salad
Coffee
Sweet Potatoes
Butter
Sherbert & Lady Fingers

Cost

Raisens.....\$.035
Tomatoes......10
Milk......0375
Flour......02
Coffee......03
Total \$.2225

Net Total

\$1.533

Breakfast Menu

Oranges	Cracked Wheat
Hamburg Steak	Brown Sauce
Rolls	Butter
Sugar	Cream
Coffee	

Cost

Oranges (2).....	\$.05
Cracked Wheat (1 c.).....	.03
Hamburg Steak (3/4 lb.).....	.065
Rolls.....	.015
Cream & Milk.....	.06
Coffee (1/4 c.).....	.02
Total	\$.24

Dinner Menu

Cream of Tomato Soup	Veal Roast
Browned Sweet Potatoes	Stuffed Spanish Onions
Bread	Lemon Jelly
Coffee	Cream

Cost

Milk (2 c.).....	\$.02
Tomatoes (1 c.).....	.05
Sweet Potatoes (w lb.).....	.04
Onions (2 lb.).....	.04
Bread.....	.02
Gelatin (3 tspn.).....	.0175
Lemon (1).....	.023
Sugar.....	.0025

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Coffee (1/4 c.).....	\$.02
Cream & Milk.....	.025
Roast.....	.175
Total	\$.433

Dinner Menu

Pea Salad	Chicken Dressing
Cranberries	Bread & Butter
Mashed Potatoes	Gravy
Ice Cream	Kisses
	Coffee

Cost

Chicken.....	\$.305
Bread for Dressing.....	.075
Cranberries & Sugar.....	.065
Peas (1/2 can.).....	.04 1/6
Salad Dressing.....	.05
Bread.....	.015
Milk.....	.02
Cream.....	.06
Eggs for Ice Cream.....	.033
Vanilla.....	.005
Salt.....	.005
Maple Syrup.....	.05
Sugar for Ice Cream.....	.0225
Lettuce.....	.015
Nuts.....	.0315

Kisses.....	.03
Coffee.....	.03
Parsley.....	.0035
Total	\$.8945

Luncheon Menu

Peas Soup	Bread Sticks
Potato Salad	Rolls
Creamed Chicken	Toast
Blushing Apples	Orange Sauces
Coffee	Cream

Cost

Soup made from Left Overs	
Chicken(Left Overs).....	\$.10
Bread for Toast & Sticks.....	.015
Potatoes for Salad.....	.005
Salad Dressing.....	.025
Rolls.....	.075
Coffee.....	.03
Milk & Cream.....	.045
Apples(4).....	.05
Sugar(1 c.).....	.03
Oranges(2).....	.04 1/6
Total	\$.356
Net Total	\$2.15

Breakfast Menu

Oranges in Orange Baskets	Cracked Wheat
Cream	Sugar
Creamed Dried Beef on Toast	Stuffed Baked Potatoes
Waffles	Jelly

Coffee

Cost

Oranges (4).....	\$.05
Cracked Wheat(1 c.).....	.03
Potatoes(2 lb.).....	.02
Coffee(1 c.).....	.05
Cream(1 c.).....	.05
Milk(3 c.).....	.03
Chipped Beef.....	.05
Total	\$.28

Dinner Menu

Chicken Soup	Crackers
Roast Chicken	Sweet Potatoes
Oyster Dressing	Cranberry Jelly
Rolls	Celery
Macaroni	Cheese
Creamed Peas	Timbale Casserole
Ice Cream	Hot Chocolate Sauce
Coffee	Kisses

Cost

Chicken.....	\$.55
Macaroni(1 c.).....	.03
Sweet Potatoes(2 1/2 lb.) .....	.05

Cranberries(1 pt.).....	\$0.05
Peas(1 c. Canned).....	.09
Celery.....	.05
Cheese(1/2 lb.).....	.10
Egg for Timbales.....	.01
Coffee(1 c.).....	.05
Milk ....(4 1/2 c.).....	.05
Egg Whites(2 for Kisses).....	.02
Cream(1 qt.).....	.25
Chocolate(2 oz.).....	.05
Total	\$1.35

Luncheon Menu

Biscuits	Chicken Chops
Waldorph Salad	Cocoa
Ice Cream	Stuffed Dates

Cost

Nuts for Salad & Dates.....	.05	\$0.05
Apples.....		\$0.05
Lettuce.....	.025	
Vinègar(1/2 c.).....	.01	
Milk(3 1/2 c.).....	.035	
Dates.....	.05	
Cocoa.....	.015	
Total	.235	
Net Total		\$1.865
Cost of General Supplies .....	.335	

Breakfast Menu

Prunes & Cream	Cracked Wheat
Baking Powder Biscuits	Hamburg Steak
Cocoa	
<u>Cost</u>	
Hamburg Steak.....	\$.065
Prunes.....	.02 1/12
Cracked Wheat.....	.03
Baking Powder.....	.015
Cocoa.....	.01
Milk & Cream.....	.08
Flour.....	.014
Total	\$.23 29/60

Dinner Menu

Tomato Soup	Bread Croutons
Candied Sweet Potatoes	Stuffed Onions
Veal Roast	Bread & Butter
Lemon Jelly	Cream

Coffee

Cost

Milk(2 c.).....	\$.02
Tomatoes.....	.025
Onions.....	.01
Roast.....	.175
Sweet Potatoes.....	.04
Bread.....	.03
Gelatin.....	.0175
Lemon.....	.02 1/12

Sugar.....	\$.015
Meat for Onions.....	.005
Coffee.....	.03
Cream.....	.025
Total	\$.41 1/3

Dinner Menu

Steamed Chicken	Egg Sauce
Mashed Potatoes	Cranberry Sauce
Bread	Butter
Pea Salad	Kisses
Vanilla Ice Cream	Chocolate Dressing

Cost

Chicken.....	\$.305
Eggs.....	.11
Potatoes.....	.024
Cranberries.....	.05
Peas.....	.04 1/6
Salad Dressing.....	.025
Bread.....	.015
Milk.....	.02
Cream.....	.06
Vanilla .....	.005
Salt for Freezer.....	.005
Chocolate.....	.06
Nuts.....	.0315
Sugar.....	.1025
Lettuce.....	.0125

Parsley.....	003
Coffee.....	02
Total	\$.8905

Luncheon Menu

Pea Soup	Bread Sticks
Creamed Chicken on Toast	Rolls & Butter
Potato Salad	Blushing Apples-Orange Sa
Coffee	Orange Sauce

Cost

Milk & Cream.....	\$.045
Peas.....	.04 1/6
Chicken.....	.10
Rolls.....	.015
Bread.....	.015
Salad Dressing.....	.025
Potatoes.....	.005
Apples.....	.05
Sugar.....	.03
Oranges.....	.04 1/6
Coffee.....	.05
Total	\$.39 5/6
Cost of General Supplies.....	.30

Net Total	\$2.23 21/30
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Breakfast Menu

Oranges	Baked Eggs
Cream of Wheat & Dates	Cream & Sugar
Rolls & Butter	Coffee

Cost

Coffee.....	\$.025
Cream of Wheat.....	.025
Cream.....	.06
Eggs.....	.05
Sugar.....	.02
Butter.....	.04 1/6
Bread.....	.015
Dates.....	.02
Total	\$.29 5/6

Dinner Menu

Baked Bean Soup	Roast Beef
Brown Gravy	Browned Potatoes
Creamed Carrots	Bread & Butter
Prune Soufflé	Whipped Cream

Coffee

Cost

Bean Soup.....	\$.02
Meat.....	.16
Potatoes.....	.048
Carrots.....	.05
Coffee.....	.025
Prune Whip.....	.065
Milk.....	.02
Cream.....	.05
Bread.....	.015

Butter.....	\$1.185
Total	\$.548

Dinner Menu

Celery & Walnut Salad	Roast Chicken
Savoy Dressing	Mashed Potatoes
Cranberry Jelly	Bread & Butter
Cereal Pudding	Whipped Cream

Coffee
Cost

Chicken.....	\$.275
Dressing.....	.005
Potatoes.....	.018
Bread.....	.015
Coffee.....	.015
Dessert Left Overs	
Salad.....	.08
Cranberries.....	.025
Total	\$.423

Luncheon Menu

Boston Baked Beans	Boston Brown Bread
Corn Custard Pudding	Chicken Salad
Fruit Sherbert	Marguerites

Coffee

Cost

Salad Dressing (Left Over)	\$.01
Boston Baked Beans.....	.05
Corn Pudding.....	.075
Eggs.....	.01 2/3
Flour.....	.005

Salt.....	\$.005
Marguerites.....	.11
Sherbert.....	.14
Boston Brown Bread.....	.015
Coffee.....	.015
Total	\$.44 1/6

Net Total \$1.72

Breakfast Menu

Oranges	Oatmeal
Cream & Sugar	Creamed Eggs on Toast
Rolls & Butter	Coffee

Cost

Oatmeal.....	\$.0375
Oranges.....	.04
Milk.....	.07
Eggs.....	.10
Coffee.....	.01 7/8
Sugar.....	.02
Butter.....	.035
Bread.....	.015
Egg for Coffee.....	.00 5/6
Total	\$.33 5/24

Dinner Menu

Cottage Salad (Cheese)	Roast Beef
Brown Gravy	Stuffed Potatoes
Scalloped Cabbage	Bread & Butter
Baked Apples & Jelly	Coffee

Cost

Salad.....	\$.07
Meat.....	.16
Potatoes.....	.02
Cabbage.....	.045
Milk.....	.02
Cream.....	.0125
Dessert.....	.075
Jelly.....	.05
Coffee.....	.02 17/24
Butter.....	.04
Bread.....	.03
Total	\$.54 17/96

Dinner Menu

Cabbage Salad	Cannelon of Beef
Gravy	Mashed Potatoes
Creamed Carrots	Bread & Butter
Cranberry Jelly	Bread Pudding

Coffee

Cost

Cabbage Salad	Left Overs
Cannelon of Beef.....	\$.13 1/6
Potatoes.....	.024
Carrots.....	.05

Pudding.....	\$.06
Cranberries.....	.0325
Coffee.....	.02 17/24
Cream.....	.012 5
Bread.....	.03
Butter.....	.055
Total	\$.42 7/24

Luncheon Menu

Creamed Meat on Toast	Potato Chips
Hot Rolls & Butter	Pear Preserves
Peanut Cookies	Cocoa

Cost

Meat	Left Overs	
Potato Chips.....		\$.015
Rolls.....		.015
Preserves.....		.08
Butter.....		.0625
Cocoa.....		.09 1/6
Peanut Cookies.....		.0375
Total		\$.29 23/40
Net Total		\$1.60

Breakfast Menu

Oranges	Cracked Wheat
Cream & Sugar	Poached Eggs on Toast
Rolls & Butter	Coffee
	<u>Cost</u>
Oranges.....	\$.04
Cereal.....	.045
Sugar.....	.02
Cream.....	.06
Eggs.....	.06 2/3
Coffee.....	.01 7/8
Eggs for Coffee.....	.00 5/6
Bread.....	.015
Butter.....	.02 1/8
Total	\$.305

Dinner Menu

Cottage Cheese Salad	Roast Beef
Gravy	Mashed Potato
Scalloped Cabbage	Bread & Butter
Snow Pudding	Coffee
	<u>Cost</u>
Salad.....	\$.07
Meat.....	.16
Potatoes.....	.024
Cabbage.....	.045
Milk.....	.02
Cream.....	.0125
Dessert.....	.14 1/6

Coffee.....	\$.02 17/24
Butter.....	.04
Bread.....	.03
Total	\$.57 3/20

Dinner Menu

Cabbage Salad	Cannelon of Beef
Gravy	Scalloped Cabbage
Mashed Potatoes	Buttered Parsnips
Bread & Butter	BlusChing Apples
Whipped Cream	Coffee

Cost

Beef.....	\$.13 1/6
Egg.....	
Potatoes.....	.024
Parsnips.....	.03
Cranberries.....	.0325
Coffee.....	.02 17/24
Cream.....	.0125
Milk.....	.005
Bread.....	.03
Butter.....	.055
Dessert.....	.10
Total	\$.44 93/1 20

Luncheon Menu

Minced Meat on Toast	Rolls
Potato Chips	Butter
Pear Preserves	Cocoa
	Peanut Cookies

Cost

Meat

Meat Left Overs

Potatoes.....	\$.012
Rolls.....	.015
Butter.....	.0625
Preserves.....	.08
Cocoa.....	.09 1/8
Cookies.....	.0375
Total	\$.29 33/40

Net Total

\$1.67 3/8

Breakfast Menu

Oranges	Oatmeal
Cream & Sugar	Omelet
Bread & Butter	Coffee

Cost

Cream.....	\$.06
Coffee.....	.025
Sugar.....	.02
Bread.....	.015
Oranges.....	.04 1/6
Eggs.....	.05

Oatmeal.....	\$.035
Butter.....	.05
Total	\$.31

Dinner Menu

Bean Soup	Roast Beef
Gravy	Mashed Potatoes
Creamed Carrots	Bread & Butter
Prune Soufflé	Whipped Cream
	Coffee

Cost

Soup.....	\$.01
Beef.....	.16
Potatoes.....	.018
Carrots.....	.05
Milk.....	.02
Coffee.....	.025
Butter.....	.125
Sugar.....	.01
Bread.....	.015
Prune Souffle.....	.065
Total	\$.50

Dinner Menu

Roast Chicken	Savoy Dressing
Gravy	Mashed Potatoes
Cranberry Jelly	Bread & Butter
Celery & Nut Salad	Coffee
Cereal Pudding	Whipped Cream

Cost

Chicken.....	\$.275
Dressing.....	.005

Bread.....	\$.015
Celery.....	.025
Lettuce.....	.025
Potatoes.....	.018
Cranberries.....	.025
Pudding.....	.04
Walnuts.....	.03
Total	\$.458

Luncheon Menu

- | | |
|----------------|----------------|
| Baked Beans | Brown Bread |
| Corn Custard | Bread & Butter |
| Coffee | Chicken Salad |
| Fruit Sherbert | Marguerites |

Costs

Boston Baked Beans...	\$.05
Corn.....	.075
Salad Left Over....	.01
Eggs.....	.01 2/3
Flour.....	.01
Marguerites.....	.11
Sherbert.....	.14
Boston Baked Bread .	.015
Coffee.....	.025
Total	\$.47
Net Total	\$1.74

Breakfast Menu

Oranges
Cream
Gravy

Coffee

Cracked Wheat
Hamburg Steak
Butter

Coffee

Cost

Butter.....	\$.0475
Oranges(4).....	.08 1/3
Cracked Wheat(1 c.).....	.03
Coffee(1 c.).....	.075
Egg(1).....	.02
Meat.....	.075
Cream.....	.10
Bread.....	.02
Sugar.....	.02
Milk.....	.01
Total	\$.47

Dinner Menu

Cream of Potato Soup
Veal Birds
Bread
Coffee

Scalloped Potatoes
Brown Gravy
Butter
Apples

Cost

Butter.....	\$.0425
Potatoes.....	.02
Orange(1).....	.02
Veal.....	.15
Bread.....	.02

Apples.....	\$.07
Sugar.....	.06
Flour.....	.01
Milk.....	.04
Cream.....	.02
Crackers.....	.01
Coffee.....	.075
Total	\$1.53

Dinner Menu

Clear Soup	Scippets
Pork Roast	Brown Gravy
Apples	Potatoes
Stuffed Onions	Cabbage Salad
Macedoine Fruit	Marguerites
Macedoine Fr <u>Cast</u>	

Butter.....	\$.1475
Cabbage.....	.02
Potatoes.....	.02
Roast.....	.20
Apples.....	.02
Onions.....	.01
Macedoine Fruit.....	.03
Marguerites.....	.05
Soup.....	.02
Rolls.....	.02
Sugar.....	.01
Milk.....	.02

