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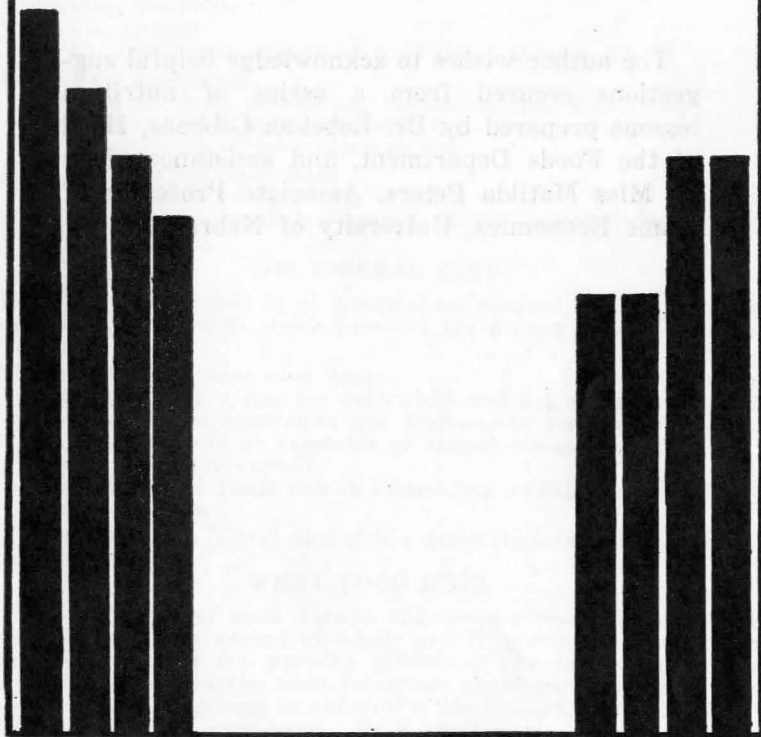
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Extension Circular 9902

October, 1934

FOOD NEEDS

AT
LOW COST



The University of Nebraska Agricultural College Extension Service,
and United States Department of Agriculture Cooperating
W. H. Brokaw, Director, Lincoln

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October 1934

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FOOD NEEDS

AT
LOW COST

The author wishes to acknowledge helpful suggestions secured from a series of nutrition lessons prepared by Dr. Rebekah Gibbons, Head of the Foods Department, and assistance given by Miss Matilda Peters, Associate Professor of Home Economics, University of Nebraska.

The University of Nebraska Agricultural College Extension Service
and United States Department of Agriculture Cooperative
W. H. Hoshaw, Director, Lincoln

Food Needs at Low Cost

BY FLORENCE J. ATWOOD

In every walk of life, whether one is old or young, married or single, at work or at play, health is a valuable asset. Buoyant health helps one to enjoy life and makes one more successful in the home, community, and state. This can not be obtained in a day's time, but is a growth that develops from eating certain foods. Those who attain and maintain health know it is worth while.

Planning meals for the family presents a problem to the average homemaker. In times of financial stress, the task becomes more difficult than when the food cost can be ignored. More careful consideration is needed for planning adequate meals when every dollar must count. It is essential that the homemaker have an understanding of food values as well as a knowledge of safe food economies that may be practiced.

The body needs food materials for the following purposes:

1. Building materials
 - A. For growth
 - B. For repair and upkeep of body tissue thruout life
2. To yield energy for
 - A. Internal work (breathing, circulation, digestion, etc.)
 - B. External work (muscular activity)
 - C. Maintenance of body temperature
3. To regulate body processes
 - A. Maintenance of neutrality of blood
 - B. Building up resistance against disease, elimination of waste products, etc.

THE LIBERAL DIET

During the past, many rural homemakers adopted for their families standards of food habits which provided the dietary essentials needed to keep one well.

This standard includes each day:

- A quart of milk a day for each child and a pint for each adult.
- Five servings of vegetables and fruits—one leafy vegetable and one raw fruit or vegetable or canned tomatoes.
- Use of some dark cereals.
- Two servings of foods rich in protein—in addition to milk.
- Plenty of water.

Even tho this is a liberal diet, it is a desirable standard to follow in normal times.

WHAT FOOD DOES

The food provided must furnish the dietary essentials needed to maintain health and energy of adults and to provide the factors for physical growth for the growing children. The food needs of the growing children are the most important problems to meet in meal planning. This is because in addition to his present needs, the child's future must also be considered. He is building his body to serve him thruout his lifetime. His health depends to a great extent on the foundation laid during the growing period. It is, therefore, essential that the meals be planned to meet the food requirements of the child.

The dietary essentials for the adult are much the same as the standard for children except the proportion of the various foods used. For

the adult, less milk may be used, fewer servings of fresh fruits and vegetables may be given, and energy foods such as grain products, potatoes, dried beans and peas are supplied in liberal amounts.

THE LOW COST DIET

The recent drouth has forced us to face the problem of securing adequate food with a very limited supply of home-grown foods and low incomes. In planning the low cost diet, there are certain foods which must be used extensively.

Cereals.—The cereal group represents the cheapest sources of heat and energy. These energy foods are cheaper and are more efficient in keeping up one's strength than building foods (proteins) as eggs, fish, meat, etc.

Cereals are divided into two groups which are so different that it is difficult to realize that they come from the same source. They are unrefined and refined. The unrefined cereals have about three times as much food value as the refined ones. Therefore, in the low cost diet use liberally oatmeal, cracked wheat, dark farina, and graham flour. Refined cereals include cornmeal, macaroni, farina, white flour, hominy, and rice. (These are listed in accordance with the decreasing food value.) The ground whole corn is better than any of these, but not as good as unrefined wheat or oats.

Actual amounts (weights) of different cereals which are equivalent in food value to **one ounce of cracked wheat** or **one ounce of rolled oats** before cooking (one ounce being approximately equivalent to $\frac{3}{8}$ to $\frac{3}{4}$ cup when cooked) are as follows:

Tapioca	3 $\frac{3}{4}$ oz.	White flour.....	2 9/10 oz.
Rice	3 $\frac{1}{2}$ oz.	White farina.....	2 8/10 oz.
White bread	3 oz.	Macaroni	2 2/5 oz.
Cornmeal	2 $\frac{1}{8}$ oz.	Whole wheat bread.....	2 1/8 oz.

Altho equal weights of cereals from the same group have very similar food value, the cost per ounce has no relation to this food value (e.g., cracked wheat and puffed wheat). Ready-to-serve cereals are very expensive, but can be made and are then inexpensive. (see page 14.) Those in trade marked packages are practically identical with bulk products in food value and are much more expensive. The clever housewife earns good wages for the time spent in preparing cooked cereal.

Milk.—Cereals alone do not furnish a balanced diet but when re-enforced with milk, the whole grain group forms a completely balanced diet with the exception of vitamin C. Refined cereals in addition to this need to have served with them foods rich in iron.

The nutritive value of milk is practically the same, whether it is fresh milk, evaporated milk, dried whole milk powder, or an equivalent amount of dried skimmed milk and butter. Cheese has practically the same nutritive value as the milk from which it is made. Five ounces of cheese are equivalent to one quart of milk. Hence low cost diets are more satisfactory for good nutrition if built around grain products and milk or its equivalent.

Vegetables and Fruits.—A diet of unrefined cereals and milk lacks the protective factor, Vitamin C, and is weak in Vitamin A. For this reason, some vegetables and fruits must be used. Tomatoes are excellent and should be added frequently, because they are rich in Vitamin C and are a fair source of A. They are a rare jewel for

the diet and should be included frequently in the diet for each member of the family. Using two tablespoonsful a day or one cup per week will prevent scurvy. However, both health and nutrition are improved if they are used more generously, therefore, it is recommended to serve them two to four times a week. A generous amount of spinach should be included because it furnishes Vitamin A, iron, and calcium. Carrots are also valuable for Vitamin A, and cabbage supplies Vitamin C and calcium. For a low cost diet spinach probably does more for the body than any of the other vegetables, while tomatoes and carrots tie for second place, tho what they do for the body is entirely different. Since liver and spinach are good sources of Vitamin A, they can replace carrots, but tomatoes have no substitute in the inexpensive diet.

Vegetables and fruits supply minerals and vitamins in the diet. In addition vegetables as potatoes, dried beans and peas furnish energy. Dried fruits after being soaked in water are comparable to fresh fruits and are less expensive.

Fats and Sugars.—Some forms of fat and sugar are also cheap sources of energy, but on the whole they contribute less to our diet than grain products. Molasses is an excellent source of calcium and iron, but refined sugar has no other value except flavor and energy-yielding. Therefore, fats and sugar are used in about the same proportion in a low cost diet as in a diet of moderate cost.

Eggs, lean meats, and fish are the best sources of protein other than milk. Since these are often expensive foods, their uses are somewhat limited for low cost diets.

If eggs are available they may be used interchangeably with meat. Eggs, like meat, have good blood building properties (iron). Eggs are a good source of Vitamin A.

Low Cost Food Guide

The following food guide sums up the foods which should be included in a low cost diet:

Every meal

Milk for children

Bread for all

Each day

Whole grain cereal (porridge, pudding)

Potatoes

Tomatoes for children

A green or yellow vegetable

A fruit or additional vegetable

Milk for all

Two to four times a week

Tomatoes for all

Dried beans and peas or peanuts

Eggs (especially for children)

Lean meat, fish or poultry or cheese

Plenty of water at all times

As has been mentioned before, low cost diets are planned around the cereal group. Since this group is deficient in calcium, Vitamins C and A, emphasis must be placed on foods which are reliable for making good these deficiencies.

SOURCES OF CALCIUM

(.68 grams calcium recommended daily; 1 gram for child)

Milk *—any type—whole, skimmed, evaporated, powdered, or cheese
 Spinach (about half as good as milk by weight)
 Carrots (about half as good as milk by weight)
 Molasses (1.8 times as good as milk by weight)

SOURCES OF PHOSPHORUS

(.044 grams phosphorus recommended daily)

Meats	Dried legumes
Eggs	Navy beans
Fish	Kidney beans
Liver	Lentils
Heart	Peas
Beef	Peanut butter
Pork	
Dried fruits	Cereals
Figs	Oatmeal
Prunes	Graham flour
Apricots	Cracked wheat
Raisins	Rye flour
Peaches	Corn meal
	Farina
	Macaroni
Dairy products	
Cheese	Cocoa
Milk	
Buttermilk	

SOURCES OF IRON

(.015 gram iron recommended daily)

Iron is needed for building blood. Foods containing iron are essential in the diet but are even more so when an individual has a cold. This is because a cold destroys the hemoglobin. This destruction continues even after one is free of the cold. Therefore, a liberal amount of foods containing iron should be included in the diet for a considerable length of time following the cold. The iron in whole wheat products is especially well used. The blood-forming substance in one pound of graham flour or cracked wheat is equivalent to that in:

$\frac{1}{2}$ lb. liver	$1\frac{1}{2}$ lb. cocoa
$\frac{1}{2}$ lb. molasses	$1\frac{1}{2}$ lb. meat
$\frac{1}{2}$ lb. navy beans	$1\frac{3}{4}$ lb. raisins
1 lb. spinach	1.8 lb. peanut butter
$1\frac{1}{4}$ lb. egg	$2\frac{1}{2}$ lb. whole wheat bread
$1\frac{1}{4}$ lb. prunes, figs or dates	$2\frac{1}{2}$ lb. tapioca
2.8 lb. potatoes	$3\frac{3}{4}$ lb. white flour

Liver, molasses, and navy beans may be substituted one for the other in approximately equal weights. Spinach or any of the unrefined cereals are about interchangeable for iron. For instance, if the family will not eat the liver allowed, they must use an extra half pound of navy beans, an extra pound of spinach, or 1.8 pounds of peanut butter.

* Milk equivalents. The following are about equal in food value:

1 qt. fluid whole milk	5 oz. American cheddar cheese
14 oz. evaporated milk (1 tall can)	$4\frac{1}{2}$ oz. dried whole milk
1 qt. skim milk plus $1\frac{1}{2}$ oz. butter	$5\frac{1}{2}$ oz. skim milk plus $1\frac{1}{2}$ oz. butter

SOURCES OF VITAMIN A

Three thousand units of Vitamin A are recommended daily. Vitamin A is necessary for growth, for the nursing mother and to protect against infection.

	Measures	Vitamin A Units
Liver.....	3 oz.	8,400
Cod liver oil.....	1 T.	7,500
Spinach *.....	4 oz.	6,000
Carrots.....	4 oz.	5,200
Apricots.....	1 ½ oz.	1,670
Eggs.....	1	1,045
Tomato.....	4 oz.	680
Milk.....	1 c. 8 oz.	520
Butter.....	½ oz.	475
Cheese.....	¾ oz.	450
Prunes.....	1 ½ oz.	450
Yellow corn meal.....	Fair†
Salmon.....	Fair†

SOURCES OF VITAMIN C

Thirty units of Vitamin C are recommended daily. Vitamin C is needed for growth, development, health of teeth, resistance to disease.

	Units per oz.	Units per serving	Size of serving
Green pepper.....	31	56	4 oz.—½ c.
Tomato, raw or cooked.....	14	56	4 oz.—½ c.
Orange juice.....	14		
Spinach canned.....	10	40	4 oz.—½ c.
Cabbage, raw shredded.....	9	18	2 oz.—½ c.
Cabbage, cooked (approx.)	4 ½	18	4 oz.—½ c.
Onion, cooked; turnips, raw	4		
Onion, raw.....	6	16	4 oz.—2 medium
Potato, cooked.....	3	12	4 oz.—1 medium
Apricots, dried.....	9	9	1 oz.—5 halves
Beets; carrots, raw, turnips, cooked.....	2	8	4 oz.—2 medium

MINIMUM FOOD AMOUNTS

Table I which is presented, shows the amount of food needed weekly and yearly for an adult man who is moderately active. From this the amount of food needed by individuals of various ages may be readily figured as suggested in Table II.

It will be found that these amounts of foods are adequate and give good returns for the amount of money spent. However, they do not allow for much variation and choice, so should be reinforced as frequently as possible with foods available by home production, that is, meat, vegetables, fruits, butter, eggs, molasses, honey, etc.

* Other greens good sources.

† Figures not available.

TABLE I *

	Weekly allowance	Yearly allowance
Milk		
Fresh, dried, evaporated or cheese equivalent to.....	2 ½ qt.	125 qts.
Meats		
Beef	1 lb.	50 lb.
Liver	½ lb.	25 lb.
Mutton, pork, eggs		
Flour		
White flour.....	2 lb.	100 lb.
Graham flour.....	2 lb.	100 lb.
Rye, whole wheat		
Cereals		
Cracked wheat	½ lb.	25 lb.
Oatmeal	½ lb.	25 lb.
Rice, corn meal, macaroni, farina		
Vegetables		
Potatoes	3 ½ lb.	175 lb.
Navy beans.....	1 lb.	50 lb.
No. 2 can tomatoes.....	1 can	50 cans
Cabbage	½ lb.	25 lb.
Carrots	¼ lb.	13 lb.
Onions	¼ lb.	13 lb.
Turnips, beets, rutabagas, parsnips ..		
Dried fruits		
Prunes	¼ lb.	13 lb.
Peaches, figs, raisins, dates		
Fats		
Butter	¼ lb.	13 lb.
Lard	1 lb.	50 lb.
Bacon, oleomargarine		
Sugar	1 lb.	50 lb.
Molasses		
Miscellaneous items, as tea, coffee, spice, etc.		

To figure the amount of food needed for a family, use the adult man's allowance as a basis following proportions in Table II.

TABLE II

Woman, 9/10 of the man's allowance.
 Boy, 14-17 years, ⅔ more than man's allowance plus 1 quart milk.
 Girl, 13-17, woman's allowance plus 2 qts. of milk.
 Child, 8-12, ⅔ man's allowance plus 3 ½ qts. of milk.
 Child, 4-7, ½ of man's allowance plus 3 ½ qts. of milk.
 Children under 4 years, ⅓ of man's allowance plus 4 ½ qts. of milk.

* The items in this allowance will have to be modified somewhat when the food is used or bought in family quantities, for example, less lard. If fat is one item that is purchased, it is advisable to buy it in the form of lard one week and bacon the next week. This helps to give variety.

**MENUS FOR NORMAL FAMILY USING FOODS SUGGESTED
IN TABLE I**

Expenditure, \$5.78, Aug. 1, 1934, (If all foods must be purchased).

MONDAY

Breakfast	Dinner	Lunch or Supper
Stewed prunes	Pork liver loaf	Bean casserole
Oatmeal, milk	Potato (baked)	Baked custard
Toast and butter	Tomatoes, stewed	Bread, butter
Coffee	Bread, butter	Milk for children
Milk for children	Coffee	
	Milk for children	

TUESDAY

Cracked wheat with raisins	Baked beans	Liver loaf sandwiches
Whole wheat toast	Brown bread	Cabbage salad
Coffee	Carrot strips	Milk for children
Milk for children	Dried fruit honey	
	Coffee	
	Milk for children	

WEDNESDAY

Whole wheat pancakes	Beef stew	Cheese and toast in
Molasses syrup	Bean cutlets	Casserole
Butter	Fig pudding	Stewed fruit
Coffee	Whole wheat bread,	Milk for children
Milk for children	butter	
	Coffee	
	Milk for children	

THURSDAY

Stewed peaches	Salmon loaf	Escalloped eggs on
Home prepared cereal	Creamed potatoes	toast
Milk	Tomatoes, cold, canned	Carrot strips
Bread and butter	Carrot pudding	Milk for children
Coffee	Coffee	
Milk for children	Milk for children	

FRIDAY

Oatmeal biscuits	Escalloped potatoes	Cottage cheese and
Carrot honey	Carrot and cabbage	prune salad
Omelet	salad	Whole wheat bread
Coffee	Tomatoes, stewed	and butter
Milk for children	Bread and butter	Milk for children
	Coffee	
	Milk for children	

SATURDAY

Oatmeal pancakes	Fricassied liver	Cream of tomato soup
Dried fruit honey	Potatoes, mashed	Croutons, bread
Coffee	Creamed onions	Oatmeal cookies
Milk for children	Bread, butter	Milk for children
	Milk for children	

SUNDAY		
Breakfast	Dinner	Lunch or Supper
Home prepared cereal	Roast pork	Cheese sandwich
Stewed figs	Potatoes, mashed	Milk for all
Toast	Fresh vegetable salad	
Coffee	Suet pudding	
Milk for children	Milk for children	

TABLE III

Foods Used in Suggested Menus Page 9
Best Sources of Food Essentials

Food item	Units of measure	Cost	Protein	Calcium	Phosphorus	Iron	Vitamin A	Vitamin C
Fruits								
Prunes.....	1 lb.	.10				✓		
Peaches.....	½ lb.	.06				✓		
Raisins.....	½ lb.	.05				✓		
Figs.....	1 lb.	.15				✓		
Vegetables	3 No.							
Tomatoes.....	2½ cans	.42					✓	✓
Carrots.....	1½ lb.	.10					✓	
Beans, navy.....	1½ lb.	.075	✓	✓	✓	✓		
Onions.....	2 lb.	.08						✓
Potatoes.....	15 lb.	.35			✓	✓		✓
Cabbage.....	1½ lb.	.06					✓	✓
Cereals								
White flour.....	11½ lb.	.45			✓			
Oatmeal.....	3 lb.	.15			✓	✓		
Corn meal.....	¾ lb.	.02						
Graham flour....	3¼ lb.	.16			✓	✓		
Cracked wheat..	1¼ lb.	.05			✓	✓		
Fat								
Butter.....	1¾ lb.	.49					✓	
Bacon.....	¼ lb.	.07						
Suet.....	½ lb.	.						
Lard.....	2 lb.	.18						
Eggs, fish, meat								
Eggs.....	1 doz.	.23	✓		✓	✓	✓	
Salmon.....	1 lb.	.15	✓		✓			
Liver.....	2½ lb.	.20	✓		✓	✓	✓	
Pork.....	2½ lb.	.21	✓		✓	✓		
Beef.....	1 lb.	.10	✓		✓	✓		
Sweets								
Sugar.....	2½ lb.	.15						
Molasses.....	1½ lb.	.12		✓		✓		
Milk, etc.								
Cottage cheese..	½ lb.	.05	✓	✓	✓			
Cream cheese....	1 lb.	.16	✓	✓	✓		✓	
Milk.....	15 qt.	1.20	✓	✓	✓		✓	
Top milk.....	3 c.	.21		✓	✓		✓	

TOTAL—\$5.78 according to budget, Lincoln prices, wholesale, Aug. 1.
\$6.26 according to budget, Kearney prices, wholesale, Aug. 1.

If the diet consists of only low cost foods such as those included in Table III, one should check very closely to make sure that foods which are sources of protein, calcium, phosphorus, iron, Vitamin A and Vitamin C are used frequently in the diet each week. Some of the menus which follow are inadequate because some of these foods have not been included in the day's diet. However, by including these foods in the same menus, the diet becomes adequate.

ONE DAY'S FOOD WHICH A NEBRASKA FAMILY ATE DURING THE MONTH OF JUNE

Family: Father, mother, children, 6 and 9 years.

Day's Meals as Served (inadequate)

Breakfast	Dinner	Supper
Oranges, $\frac{1}{8}$ doz.	Potatoes, baked, 1 lb.	Chocolate pudding, 4 servings
Bran flakes, 4 oz.	Peas, 1 No. 2 can	Graham crackers, 8
Cereal coffee, 2 t.	Salmon, 1 can	Bread, 8 slices
Toast, 8 slices bread	Celery, $\frac{1}{2}$ lb.	Butter
Butter, $\frac{1}{4}$ lb. whole day	Butter	
Sugar, $\frac{1}{2}$ lb. whole day	Bread, 8 slices	
Milk, $1\frac{1}{2}$ qt. whole day	Strawberries, 1 pt.	
	Cream, $\frac{1}{2}$ pt.	

This diet is deficient in all dietary essentials except protein and Vitamin C.

Not enough calcium, phosphorus and iron.

Low in vitamin A.

Vitamin C is furnished from a very expensive source, oranges and strawberries.

Too few calories.

This diet costs as much as if it were adequate.

SAME DAY'S MEALS IMPROVED

Breakfast	Dinner	Supper
Tomato juice, 1 pt.	Baked creamed salmon, 1 can	Cream of tomato soup, 1 can tomatoes
Oatmeal, $\frac{3}{4}$ c.	Baked potato, 1 lb.	Croutons, 3 slices bread
Toast, whole wheat, 8 slices	Carrot and cabbage salad, $\frac{1}{2}$ lb. each	Bread, 4 slices
Butter, $\frac{1}{4}$ lb. for whole day	Oatmeal muffins, 8	Butter
Sugar, $\frac{3}{8}$ lb. for whole day	Butter	Carrot pudding (left-over), 4 servings
Milk, 3 qt. for whole day	Carrot pudding, 4 servings	
Cereal coffee, 2 t. for whole day	Milk for children	

The following changes make this diet adequate:

Calcium and phosphorus increased by adding whole grain cereals and more milk.

Iron content was increased by adding more whole grain cereals and dried fruits.

Vitamin A has been improved by adding carrots, tomatoes.

Vitamin C has been furnished from low cost sources as tomatoes and cabbage.

This improved diet costs \$0.23 less for the day than the inadequate one.

ONE DAY'S FOOD FOR A NEBRASKA FAMILY DURING JANUARY, 1934

Family: Father, mother, children, 5, 8, and 13.

Day's Meals as Served (Inadequate)

Breakfast	Dinner	Supper
Corn flakes, $\frac{1}{2}$ pkg.	Potatoes, fried, 2 lb.	Potatoes, mashed,
Evaporated milk, 1	Bacon, $\frac{1}{2}$ lb.	2 lb.
tall can for whole	Bread, 10 slices	Gravy
day	Butter	Steak, 2 lb.
Sugar, $\frac{1}{4}$ lb. for	Coffee	Bread, 5 slices
whole day		Peanut butter, $\frac{1}{8}$ lb.
Butter, $\frac{1}{8}$ lb. for		Coffee
whole day		
Coffee, $\frac{1}{4}$ lb. for		
whole day		

This diet is deficient in all dietary essentials except protein.

Too few calories.

Not enough calcium, phosphorus, iron.

Low in vitamin A and vitamin C.

Protein is furnished by expensive sources.

The above food costs as much as if it were adequate.

SAME DAY'S MEALS IMPROVED

Breakfast	Dinner	Supper
Tomato juice, 1 No.	Fricassied liver, 2 lb.	Prune and cottage
2 $\frac{1}{2}$ can	Potatoes, creamed,	cheese salad, $\frac{1}{4}$ lb.
Home prepared break-	1 $\frac{1}{4}$ lb.	prunes, $\frac{1}{2}$ lb.
fast cereal, 5 serv-	Carrot strips, $\frac{1}{2}$	cheese
ings	bunch	Peanut butter sand-
Whole wheat toast	Fruit, stewed	wiches, $\frac{1}{8}$ lb.
(home baked) 10	$\frac{1}{8}$ lb. peaches	Bread, 10 slices
slices	$\frac{1}{4}$ lb. prunes	Butter
Butter, $\frac{1}{4}$ lb. for all	1/6 lb. raisins	Milk for children
day	Whole wheat bread,	
Milk, 2 qt. for all day	5 slices	
Evaporated milk, 1	Butter	
tall can for all day	Milk for children	
Sugar, $\frac{1}{4}$ lb. for all		
day		
Coffee, 2 T. for all		
day		

With the above changes in the day's menus the diet of the family is adequate:

More less expensive foods added.

Phosphorus improved by adding milk, meats, whole grain cereals and beans.

Calcium increased by adding milk.

Iron increased by adding liver, whole grain cereals, and beans.

Vitamin A made adequate by addition of liver, butter, carrots, and tomatoes.

Vitamin C increased by adding tomatoes and potatoes.

This improved diet costs no more than the inadequate one and yet it furnishes plenty of food.

WHAT CHANGES ARE NEEDED IN THE FOLLOWING DIET?

Research has shown that foods contain twenty elements or combinations of elements which are essential for normal growth and development. These include ten minerals, six vitamins, water, fat, carbohydrates, and proteins. The composition of the average foods eaten is such that only three minerals (calcium, phosphorus, and iron) are apt to be insufficient in the diet. If each growing member of the family is making the average gain and the adult members are maintaining their weight, this is sufficient evidence that enough calories are being supplied. To make certain that there are no deficiencies in the necessary food essentials, check the following day's menu with tables which list foods giving their most important food essentials.

ONE DAY'S MENUS OF NEBRASKA FAMILY FOR ONE DAY IN MAY

Family: Father, mother, children, 8 and 10.

DAY'S MEALS

Breakfast	Dinner	Supper
Shredded wheat, ½ pkg.	Rhubarb sauce, 1 lb.	Hot rolls, 12
Orange juice, ½ doz.	Bacon, ¼ lb.	Butter
Bread, 10 slices	Eggs, ½ doz.	Tea
Butter, 1/6 lb. for all day	Cake, 4 slices	Milk
Coffee, 1/6 lb. for all day	Bread pudding, 4 servings	
Sugar, ¼ lb. for all day	Coffee	
Milk, 1 qt. for all day		

SOME INEXPENSIVE PRACTICES TO FOLLOW FOR LOW COST DIETS

1. Use vegetable water in soups, meat loaf, stews and gravies. This water contains minerals and some vitamins as well as flavoring material.
2. Serve raw carrots and turnip strips with soups as a relish. Cut them in long narrow thin strips.
3. Serve Melba toast in place of crackers. Cut bread in slices about ½ inch thick and dry out thoroly in a slow oven.
4. Grate very dry cheese and sprinkle over soups.
5. From two to four tablespoons of tomato juice will protect an individual against scurvy. Since health and nutrition are improved by larger amounts, it is advisable to serve tomatoes three or four times per week.
6. Dried parsley and celery leaves add flavor to foods. One may have access to fresh parsley the year around by keeping a plant in the house during the winter months.

7. Let prunes stand for two or three days in very cold water in a cold place. They become plump and are very much like fresh fruits. Serve without cooking.
8. Pickle spice is inexpensive as a seasoning because of the variety of kinds that one may sort out for use.
9. Mix crisp bacon (minced) with cold oatmeal. Add salt, and use as a filling on bread for sandwiches.
10. Use left-over oatmeal in patties.
11. Fifty per cent of the cereals used should be unrefined.
12. Raw foods are usually better for Vitamin C than cooked (tomatoes are an exception). Cabbage loses half when lightly cooked.
13. Serve raw cabbage relish (sugar and vinegar) often. Five minute cabbage cooked in milk is a desirable change.
14. Potatoes contain iron and some Vitamin C, while white bread is poor in iron and has no Vitamin C. Therefore, it is well to use a generous amount of potatoes in a low cost diet.
15. Molasses syrup (sugar syrup flavored with molasses), dried peach honey (dried peaches and carrots) and corn cob syrup are inexpensive spreads. (See page 15.)
16. Molasses is an excellent source of both iron and calcium. New Orleans (cane) molasses or sorghum molasses have approximately the same nutritive value. Corn syrup has no more nutritive value than sugar and costs twice as much. Molasses is $8\frac{1}{2}$ times as good as sugar (total nutritive units in 1 lb. sugar is 181.4; in 1 lb. molasses it is 1,297.4). Corn syrup is a relatively expensive food but molasses has a place in the low cost diet.
17. Bacon fat can be used in making salad dressing. (See page 16.)
18. Pregnant and nursing mothers need one quart of milk daily.
19. Ready-to-serve cereals made in the home are inexpensive.
20. Some people are reluctant to use cold storage eggs, but they are as nutritious as eggs which have not been stored. They may even be of better quality than eggs cared for in the average home, because of the low temperature at which they are stored. Cold storage eggs and eggs not stored may be used interchangeably. Cold storage eggs are cheaper in the seasons when there is a scarcity of eggs. When eggs are cheap it is well to use a higher proportion of eggs.
21. After the first hard freeze, dig up a few plants of rhubarb, leaving considerable dirt around the roots. Take into the cellar or cave. In January or February, fresh rhubarb will be available from these stocks.
22. Cereal coffee can be made at home. (See page 16.)
23. Use tapioca instead of gelatin (jello, etc.) in making salads and desserts. It is more nutritious and less expensive.

Nebraska's Home Prepared Breakfast Cereal

1½ c. graham flour	1 t. salt
1½ c. home ground wheat	½ c. molasses
1 t. soda	¼ c. sugar
1½ c. fresh buttermilk	

Mix dry ingredients, then add molasses and buttermilk. Spread the batter on flat pans and bake very slowly. When thoroly baked, cool, grind and dry in oven. Serve with cream. (This makes a sweet product. If a less sweet product is desired, add less sugar and molasses.)

Savory Spanish Wheat

2	c. cooked wheat	1½	c. tomatoes
3	strips bacon	½	t. salt
3½	T. chopped onion		

Cook coarse cracked wheat in milk using five times as much milk as wheat. This may be started over direct heat but must be finished in a double boiler. Left-over breakfast cereal may be used. Cut bacon into small pieces and fry until crisp. Remove bacon, slice onion into the pan and brown slightly. Mix bacon fat, onion and pieces of bacon, tomatoes with cooked wheat. Place in a suitable pan and bake in moderate oven 20 to 30 minutes.

Wheat Coffee

1	egg	1	c. honey or molasses	2	qt. wheat bran
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Beat the egg, add the honey and lastly the bran and stir until well blended. Put in the oven and brown until dark brown, stirring frequently, being very careful not to scorch. To prepare the coffee, allow 1 heaping tablespoon to each cup of hot water and boil for at least 10 minutes.

A good cereal coffee can be made with ground wheat, browning it slowly in the oven, with or without the addition of molasses. The beverage is prepared as directed above.

Rye Coffee

Clean and wash one quart of rye. Add 1 teaspoon sorghum, put in skillet and place in oven with only medium heat. Parch slowly until well browned but not burned. Grind and if desired place in oven for more browning. Use as regular coffee grounds. Wheat may be used in place of rye but rye is said to give the better flavor of the two.

Bacon Fat Salad Dressing

¾	c. milk	¼	t. mustard
2	T. flour	¼	c. vinegar
2	T. sugar	2	T. bacon fat
¼	t. salt		

Mix dry ingredients, add milk, then the vinegar slowly. Cook over low fire, stirring until it thickens. Add bacon fat. The addition of one egg slightly beaten will give this a better flavor and color. When added, use only 1 T. flour. If made without an egg, add a little butter coloring.

Molasses Syrup

Boil equal parts sugar and water together till sugar is dissolved. Thicken with ¼ tablespoon flour for each cup of water used to prevent crystals forming. Flavor with molasses to taste. Two tablespoons of molasses per cup gives a taste similar to syrup made of brown sugar.

Dried Peach Honey

Soak dried peaches over night, grind or mash fine. To each cup of peach pulp add ½ cup carrots, either grated or run thru a meat chopper, 1 cup sugar and just enough water to make the consistency of honey. Heat until thoroly blended.

Corn Cob Syrup

Cover a panful of clean cobs with water. Boil for about twenty minutes. Pour off the brown flavored water from the cobs, thicken using ¾ tablespoon of flour for each cup of water, add an equal measure of sugar and heat until thoroly dissolved.

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