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FOOD CONSERVATION PROGRAMS
FOR MEETINGS OF WOMEN OF FARMERS' CLUBS

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Nothing is more important today than the attitude women assume toward the problems of the nation. Every woman in Minnesota, proud of the honor and integrity of her home, wishes America and the Allies the most unquestioned success in this war. There is not one of us who does not recognize that it is **our war.**

The necessities of life—food, clothing, and health—are as essential in war time as in peace. The supply, however, is never so great. Conservation is essential.

The best help is backed by knowledge and intelligence. We wish our help to be of the best type and suggest that the women of the farmers' clubs, during the winter of 1917-1918, study **"Conservation of Foods."** This movement represents an answer to the appeal of starving nations. It represents a movement essential to the winning of the war. Every family in the United States can help. Every family in Minnesota will help. The sons must be kept fit. Food can be supplied only by coöperative action.

PROGRAM—MEETING I

a. How the Women of the Allies Are Supplying Their Food Needs
b. Victory Breads: Their Food Value and Importance
c. Your Best Recipes for Using Rye, Barley, Cornmeal, and Oatmeal in Quick Breads
d. Any member of foreign birth, or any one who has traveled in Europe, may tell of dark bread seen or used there.

How the Women of the Allies Are Meeting the Food Situation

The food situation of the European Allies is most critical. Its intensity is appalling to our troops already at the front. Those countries are importers and even in times of peace have but a small reserve of necessities. After three years of war, with the able-bodied men withdrawn from the ranks of producers, with shipping facilities badly impaired, the quantity supplied daily is most meager.

Yet the problem must be solved every day and nations fed with the material available. The women are doing it.

The crisis has been met in many places by organization. High prices, government restrictions, and the entrance of so many women into industrial life, have made housekeeping as it was previous to August 1, 1914, an impossibility. The food problem has therefore been entrusted to groups of experienced and trained women who have studied the science of nutrition. They know how much food is required to maintain life, health, and activity. They know what kind of food can best do it. They know, too, the differing needs of young children, youths, and adults.

Canteens or coöperative kitchens are found today in every village and town in warring Europe. They buy in such quantities that prices are most favorable. Waste has been wiped out. Menus are based upon food values as determined by scientific analysis. The value of flavor is not overlooked and variety is produced by skill in preparation. To these canteens the townspeople come for their food. This permits observation of health conditions and when possible special needs are met.

The wonderful bakeries of Europe are in charge of women; so, also, are the hotels and restaurants of large cities. The best conducted hospitals are managed by women, and so well has the work been done that woman's economic independence is forever established.

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"Victory Breads," Their Food Value

When wheat flour is mixed with barley, cornmeal, oatmeal, or potatoes and the mixture made into bread, we have the Victory breads of today. These are not newly introduced foods. They have been used since man first mixed meal with water and baked it in the ashes. To-day's bread, however, is much more easily used by our bodies than were the old "dark breads."

Wheat flour makes the lightest bread because it contains gluten. When a dough is made from wheat flour, it is elastic because of the gluten. In cooking, the gluten puffs, holds the air, and makes the lightest and most quickly digested bread known. It is not a better food, however, than are the Victory breads.

Barley flour has very little gluten. It is easily digested, is nourishing, and is usually given to invalids and delicate infants. When mixed, two thirds white flour and one third barley flour, the bread is light, well flavored, and an excellent food. Biscuits made with barley flour alone are very tender but a mixture of wheat and barley is best for cakes and pastry.

Oatmeal has a higher food value than any other cereal used for breakfast. It contains lime, phosphorus, and iron, and more fat than any other grain product. Oatmeal bread has a nutty flavor. Its value as a growth food is higher than that of wheat bread.

Cornmeal is used in the south as much as is white flour. A mixture of cornmeal and wheat flour makes delicious yeast bread and also quick breads, cakes, and pastry. The food value is the same as that of white bread.

Potato bread resembles in appearance the ordinary white bread more than any other Victory bread. It is more moist than that made from wheat alone. Most people like it. Potatoes are frequently used in doughnuts and cakes, also in muffins. Directions for mixing must be followed exactly if a good product is to be made.

References

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PROGRAM—MEETING II

a. The Value of Vegetables in the Diet and Their Use as Conservers of Wheat
b. Sugar as Food and Sweets Not Sugar
c. What Each of Us Can Do to Make Our Supply of Sugar Go Far
Suggestions from club members.

The Value of Vegetables in the Diet

All vegetables contain alkaline minerals and for this reason they counteract the strong acids formed during the digestion of meat, fish, eggs, and cereals. They all contain material which is valuable as roughage. Those vegetables which contain starch and sugar as do white potatoes and sweet potatoes, are valuable energy-producing foods, serving the same purpose in nutrition as bread.

Green vegetables have yet another food use. They are rich in iron of a quality easily used by the body. They also contain certain materials which are known to promote growth, and others which are valuable for the production of healthy nerves. The lack of green vegetables and of fruits in the diet is frequently responsible for underweight, anemia, dullness, and constant fatigue in growing children. Rickets and scurvy are also due to an undersupply of these foods.

Peas and beans, like potatoes, are foods useful to hard workers because they contain materials which yield energy. In combination with milk, eggs, or meat they are body-builders and can be used to extend an insufficient supply of these expensive foods.

Use all the vegetables possible. Plan to serve a starchy vegetable and a green or salad vegetable every day.

One potato weighing 3.6 ounces will take the place in the diet of 2 slices of bread one half inch thick. Eight or nine such potatoes will replace a loaf of bread.

Do not eat bread at dinner, but promote vigorous health by eating more vegetables or fruits.

One banana will yield as much energy as two slices of bread. Try such substitutions, and notice how well satisfied you will be.

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Barrows, Anna. Extension course in vegetables as foods. U. S. Dept. of Agr. Bull. 123. 1916. 5 cents.

Langworthy, C. F. Potatoes, sweet potatoes, and other starchy roots as food. U. S. Dept. of Agr. Bull. 468. 1917. 5 cents.

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Sugar as a Food—Sweets Not Sugar

A small amount of sugar is a large amount of food. Two tablespoons of sugar have as much energy-producing power as one and one fourth cups of dry corn flakes or one half cup of macaroni and cheese. For this reason and because the body uses it quickly, it is a splendid stimulant for men doing very hard muscular work. This is one reason the government wants sugar for our armies and those of the Allies.

Sugar, however, does no other work in the body than to give energy. It can not build new muscles or bones, it can not improve the health of sick nerves. Indeed, when we take too much sugar, it is likely to bring on disease.

We of America use more sugar than any other nation. We use 90 pounds a year per capita. Two tablespoons a day is all the body needs. We have many other kinds of sweetening which can be used on hot breads, on breakfast foods, as desserts, as confections, and in making puddings and cakes.

Molasses was used by our grandmothers. There is nothing more delicious than maple syrup, and the children love corn syrup. Honey is produced in Minnesota in great quantities and its excellence has always been known. Raisins and dates are the sugars of the Arabs and they have other important food values. Three fourths of the solid matter in one of these is sugar.

Let us be patriotic, save sugar for the armies, and improve our own health.

References

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PROGRAM—MEETING III

a. Fats—and—Fats
b. Meatless Days
c. Fish—Cheese
d. The best meatless recipe of club members

Fats—and—Fats

Fats, most precious of foods, needed by our bodies; needed by the Allies; needed by the soap-makers; needed by munitions works. Such a scramble for fats the world has never known.

Indeed, the body needs fat just as an automobile needs oil. Certain organs, as the kidneys, must be surrounded by it if they are to remain healthy; perfect disposal of body waste requires it, and active muscles need it. This fat must be supplied in the food.

Cereals; green leaves, as spinach and lettuce; whole milk; and egg yolks contain the very best food fats known. It is absolutely necessary that some of these fat-containing foods be given daily to children.

Meats are our greatest source of animal fats and every speck that comes into the house can and should be used. Many housekeepers never buy special fats for cooking purposes because they render all the trimmings from beef, mutton, pork, and chicken, store them alone or mixed, and so prevent waste and save expense.

Butter is our most valuable food fat. After it is heated it is not wholesome and often causes gas. Other materials can be used instead of butter for flavoring. Butter is a necessary food for children, especially if the quantity of milk given be small. Cereals and greens will take the place of some of the butter needed and permit the more abundant use of other fats.

Oils from olives, cottonseed, corn, and peanuts are valuable energy foods. They are used in making lard substitutes such as crisco and cottolene, also in oleomargarines.

Four tablespoons of fat each day, two of butter and two of cooking fats will fill all our body needs. This is less than most of us are accustomed to, but to-day patriotism demands sacrifice. By measuring out the above quantity for a week's supply for each member of the family there will be conservation which can only come if planned for, not because we are unwilling, but because our habits are established.

References

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Meatless Days

Because a part of the world is starving, our Government, which is the nation of which we are each a part, asks us to have a meatless day a week (Tuesday), and on that day to do without beef, veal, mutton, or pork; to have at least one porkless day a week (Saturday), and to refrain from eating meat for one meal of every other day, preferably the morning meal.

It has been suggested that there are certain meats, however, which are not easily shipped that we can use on these days. These are poultry, game, and fish. If the local supply of these be used, then the larger carcasses, most easily handled and shipped, will be released for that part of the world where food is less abundant than here.

Meat is not a necessity of life. It contains a substance which must be furnished by some part of the food every day. This substance is protein, needed for body building and repair. Eggs, milk, and cheese furnish just as perfect proteins as meat. Nuts and all kinds of beans and peas also furnish some, altho the vegetable proteins are not so easily used by the body, partly because there is a good deal of roughage in vegetables which prevents some of the protein from getting into the blood stream. When the foods for the day include cereals, vegetables, and foods made with milk or eggs, nuts or peas or beans may be used as the meat substitute for the day with no cause for worry.

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Fish—An Excellent Meat Substitute

Fish is a practical substitute for beef, pork, or mutton. The muscle of fish contains more water than does meat, but it is nutritious and very easily digested. Minnesota has a great variety of fish in her lakes and rivers and these can be used to advantage by the people of the state.

References

Bureau of Fisheries circulars:
Economic circular No. 11, Canned salmon.
Economic circular No. 18, Oysters.
Economic circular No. 29. Why and how to use salt smoked fish.
Economic circular No. 31, Carp.

Cheese—For Meatless Meals

Minnesota produces as fine cheese as is made anywhere in the world. It is a most valuable food. It has the same composition as milk from which it is made and it is quickly and completely used by the body. When cheese is eaten slowly with bread, rice, or crackers it is digested without any trouble.

A cube of cheese one and one eighth inches on each edge has the same food value as an ordinary serving of broiled sirloin steak and even at the price of cheese today is a cheap food.

Cottage cheese is the cheapest form that can be obtained. It can be made in the home from sour milk. A pound of cottage cheese contains as much body-building material as does a pound of meat and is cheaper. It is the most easily digested of all the cheeses and may be given any flavor desired by adding parsley, peppers, nuts, or jam.

When cheese is cooked, it must be watched carefully as the fat in it burns easily. Cheese fat is really butter, and when overheated it is very irritating. Proteins are toughened when too much heat is used and do not digest easily.

References

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PROGRAM—MEETING IV

Subject: Healthful Feeding
a. Why we need food
b. The kinds of food we need
c. How much food we need

Why We Need Food

The body is like a fine engine, made up of many parts. Like an engine, it needs fuel to keep it going, for some parts such as the heart, lungs, blood-vessels, and other vital organs never stop working. When increased labor is required the quantity of fuel must be increased in proportion or there will not be power enough in the engine. The fuel is furnished by foods which we call "Energy producing foods."

During the years of growth, our bodies require building material. All through life, as with an engine, parts are constantly wearing out and requiring repair. Proteins and minerals furnish building and repair material.

Every man or woman who drives an automobile recalls how the oil leaves waste that will clog the machinery and harm it if left. Waste forms in the body and if left is harmful. Consequently food is needed that will prevent harm and cause the waste to be thrown off.

The human body, however, has life and so it has needs unlike those of a machine. Some foods are needed to encourage growth in young people and others are needed to keep the nerves and glands healthy. If any one of these different food needs is overlooked, the body will be unevenly developed and will lack perfection.

The Kinds of Food We Need

Certain foods, such as sugars, starches, and fats, act like fuel in the body and produce power or energy. Many foodstuffs contain a mixture of these together with proteins and minerals needed for body building. Nearly all natural foods, which need only be cooked to be ready, are mixtures and therefore do many kinds of body work. In reading the charts you will notice that some food stuffs are listed in each class.

Some protein is found in vegetables, some in cereals, and when these are used in large quantities, the amount of animal food used may be cut down. Many strong men have never eaten flesh, but have obtained all their protein from eggs, milk, cheese, and vegetable foods.

The minerals needed to protect the body from harmful waste materials are lime, soda, potash, iron, and many others. These are all found in milk and in vegetables. Vegetables, too, especially greens, furnish the materials needed to keep the glands and nerves healthy and every farmer knows their value for roughage. Fruits furnish these materials also.

The foods which stimulate growth in children are whole milk and cream, butter, egg yolks, cereals, and leaf greens.

No class of food can be left out, but it can plainly be seen that vegetables, fruits, and milk are very important foods and we should have them every day.

CHART I*

To keep up your energy, eat:

Foods that are starchy, such as	Foods that are sugary, such as	Foods that are fatty, such as
White potatoes	SUGAR	CREAM
Sweet potatoes	Syrup	BUTTER
Rice	Molasses	Egg yolk
Cornmeal	Honey	BACON
Hominy	Dates	PORK
Oatmeal	Prunes	LARD
Barley	Dried peaches	SUET
WHITE BREAD	Raisins	Oleomargarine
Peanuts	Figs	Vegetable oils
Dried navy beans	Jellies	Vegetable fats
Dried lima beans	Jams	BEEF DRIPPINGS
Split peas	CANDIES	Goose oil
Bananas	Cakes	CHICKEN FAT
Chestnuts	Dried apples	Peanut butter
Apricots	Maple sugar	Soy beans
	For growth and repair, eat:	
Foods that are rich in mineral matter, such as	Repair foods, such as	Foods that are rich in protein, such as
Milk	Navy beans	Milk
Egg yolk	Kidney beans	Eggs
Prunes	Lima beans	Poultry
Carrots	Lentils	Game
Spinach	Peas	Fish
Celery	Nuts	Cheese
Turnips	Corn	BEEF
Onions	WHEAT	VEAL
All fruits	Oats	MUTTON
All greens	Barley	PORK
All fresh salads	Rye	Soy beans
Whole grains	Buckwheat	Peanuts

* From a "War message" issued by the U. S. Dept. of Agr. Use sparingly all foods printed in CAPITAL letters. Use freely all others. Capitals indicate the foods of which there is a shortage.

The following table shows the comparative cost of quantities of common food materials furnishing protein equivalent to that in one pound of lean round of beef.

CHART II

Material	Weight or measure	Market price	Cost
		Cents	Cents
Beef, lean round	1 lb.	30 lb.	30
Fresh fish:			
Cod and halibut steaks	1 lb. 3.4 oz.	20 lb.	24
Mackerel, trout, shad	2 lbs. 1.6 oz.	20 lb.	42
Canned fish:			
Salmon	14.8 oz.	36 lb.	33
Tuna	14.8 oz.	50 lb.	46
Sardines	.....	.....	..
Salt cod, smoked halibut	13.6 oz.	25 lb.	21
Milk, whole	2.7 qts.	10 qt.	27
Milk, skimmed	2.6 qts.	5 qt.	13
Eggs	13 eggs	35 doz.	38
Cheese, American	10.8 oz.	35 lb.	24
Cheese, cottage	15.0 oz.	15 lb.	14
Peas, dried	1.7 cups	10 lb.	8
Beans, dried	2.0 cups	20 lb.	17
Peanuts, shelled	3.7 cups	35 lb.	26
Peanut butter	10.6 oz.	18 lb.	12