THE SCHOOL LUNCH

COMMUNITY RESPONSIBILITY FOR THE FOOD NEEDS OF THE CHIL-DREN OF TODAY WILL BE MEAS-URABLE ONLY IN TERMS OF THE HEALTH AND VIGOR OF THE COM-MUNITY OF TEN YEARS FROM TO-DAY.

TEN YEARS FROM TODAY THE DEGREE AND THE QUALITY OF RESPONSIBILITY TAKEN BY PARENTS, SCHOOLS, COMMUNITIES, STATES, AND THE NATION TO INSURE ADEQUATE FOOD TO THE CHILDREN OF TODAY WILL BE MEASURABLE IN TERMS OF DEPLETED OR VIGOROUS ADULTS.

TODAY'S FOOD NEEDS CANNOT BE MET TOMORROW. EVERY CHILD WELL FED EVERY DAY IS AN INSURANCE POLICY FOR TOMORROW WITHIN THE REACH OF EVERY COMMUNITY.

Oregon State Agricultural College Extension Service

Corvallis, Oregon

This Bulletin is prepared

For MOTHERS who, eager to have their children abundantly healthy, realize the importance of the noon lunch at school which represents one-third of the day's meals.

For PARENT-TEACHER GROUPS who, seeing about them children who are inadequately fed at home, desire to take leadership that will insure for those children one-third of the day's food needs adequately met.

For TEACHERS, many of whom are responsible for the establishment of the noon lunch program and without whose whole-hearted interest no plan could be successful.

For OTHERS, individuals or groups, who desire to help in a very practical way to maintain a high standard of child health in their communities.

> CLARIBEL NYE, State Leader of Home Economics Extension

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The School Lunch

By

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A N adequate school lunch is important to the health and well-being of every child and teacher who must have the noon meal at school. For the child who is not adequately fed at home, the school lunch becomes an opportunity partly to make up for the deficiencies of the other meals of the day.

THE SCHOOL LUNCH IN CHILD NUTRITION

Relation to the day's food program. The noon lunch is related to the remainder of the day's food program. In Table I are given both the desirable and the emergency standards of food selection for growing children. The emergency standard although inadequate protects from danger of permanent injury. The nearer the diet approaches the standards in the left-hand column, however, the greater the protection from disease, poor growth, and poor development.

TABLE I. FOOD STANDARDS FOR SCHOOL CHILDREN

Foods	Amount every normal school child should have daily	Amount every normal school child should have daily if on an emergency standard
MILK	I quart of whole milk to drink and in cooked food (fresh or evap- orated)	l pint of whole milk to drink and in cooked food (fresh or evap- orated)
VEGETABLES	2 or 3 servings of vegetables prefer- ably green and yellow, in addi- tion to potatoes	I or more servings of potatoes daily and 1 or more servings of other vegetables daily including I serv- ing of tomatoes or raw cabbage three times a week.
FRUITS	2 servings (1 serving of fruit or vegetable should be raw. Canned or raw tomato or orange daily.)	
EGGS	1 egg	See Cheese, Meat, Fish, Dried Beans
CHEESE, MEAT, FISH, DRIED		
BEANS	I serving of any one	l serving of any one of the following three times a week: Eggs, Cheese, Meat, Fish, Dried Beans
BREADS AND CEREALS	2 servings or more (Whole grain products are recom- mended.)	l or more servings at each meal. (Whole grain products are recommended.)
WATER	1 quart	1 quart
FATS	Butter I tablespoon cod-liver oil	Enough fat to make food palatable l tablespoon cod-liver oil

TABLE II. EXAMPLES OF A DAY'S MEALS FOR THE SCHOOL CHILD

Meal	Desirable standard	Emergency standard
Breakfast	Fruit	
	Whole-grain cereal with milk and sugar	Whole grain cereal with milk and sugar
	Whole-grain toast and butter or potatoes	Toast or potatoes
	Milk to drink	One-half cup milk to drink
	(Eggs and bacon may be added and the protein dish omitted from one of the other meals.)	
Noon lunch at school	Cream of vegetable soup	Cream of vegetable soup
	Vegetable or fruit sandwich of whole-grain bread	Vegetable or fruit sandwiches of whole-grain bread
	Egg, cheese, meat, or fish sandwich	
	Fruit or milk dessert	
	Cookie or plain cake occasionally	
Supper	Egg, fish, meat, or cheese	Egg, fish, meat, or cheese three times a week
	Bread and butter	Bread or cereal or both
	Salad containing raw vegetable or	Vegetable or fruit
	fruit (Canned tomato may be substituted.)	Tomatoes three times a week
	Potatoes	Potatoes
	Another cooked vegetable, preferably green or yellow	
	Fruit dessert, pudding, cookies, or plain cake.	
	Milk to drink	One-half cup milk to drink or used on other food or in puddings or soup

Children's eating habits need guidance. The cooperation of parents and teachers is needed in the wise guidance and supervision of children if desirable eating habits are to become the general practice. Eating habits are being developed whenever and wherever the child consumes food. These habits include not only the habit of choosing foods essential for growth, resistance to disease, and energy, but habits of eating slowly, of chewing food well, and of eating in a way that is socially acceptable. If left to themselves, children usually hurry through the noon meal at school, sometimes not taking time to sit down to eat, in order that they may have all the time possible for games and sports. In order to encourage the children to eat leisurely a teacher or parent must be present to eat with the children. If the habit of eating slowly is to be practiced, it is desirable that the children who eat lunch at school sit down together and remain seated for at least fifteen minutes. Those who wish to spend longer at the noon meal should not be hurried. Children who go home for lunch should not be allowed on the school grounds until the lunch period of the noon hour is over. Fifteen minutes for lunch and fifteen minutes for exercise and zestful play is the minimum standard. An hour for lunch and play is a much more desirable program.

Many childhood ills and physical handicaps in later life can be traced to improper nourishment during school days. Without guidance and supervision the school child's food program may run as follows: lunching on food in the evening; slight appetite and no breakfast in the morning, or an inadequate hurried meal; poor work and poor behavior at school; most of the carried lunch eaten at recess; hurried, inadequate noon lunch; enormous appetite after school, large lunch which includes cake, pie, or cookies; small appetite for simple essential foods at the evening meal; more lunching in the evening. Such a program is disastrous to optimum health, growth, and development.

The habit of eating an adequate breakfast at home undoubtedly contributes to health and therefore to successful participation in school. Children should have time at home in the morning to eat breakfast in a leisurely fashion and also to have an evacuation from the bowels before starting to school. A light hurried breakfast encourages eating the carried lunch at recess. This interferes with appetite for the noon meal, and encourages heavy lunching after school and consequent poor appetite for the evening meal. If breakfast is eaten early or if a child is very young or frail he may need food at recess. This should be provided in the carried lunch in addition to the noon meal and may well be fruit, or he may drink part of his milk with a graham cracker at recess. Sandwiches should be reserved for the noon meal. The recess lunch should be small and light, and should be eaten slowly and chewed well.

A problem which many parents find puzzling is the after-school lunch. Children should be encouraged to drink plenty of water between meals but except in the case of very young or frail children little food should be eaten between meals. One way of determining a child's need for food between meals is his appetite for the next meal. The between-meal lunch is undesirable when it deprives a child of appetite for the simple essential foods that he should take at meal time. Eating sweets between meals is a particularly undesirable habit for this reason. If an after-school lunch is necessary, it should be limited to moderate amounts of such foods as fruit, bread and butter, or milk. In some cases it may be desirable and possible to have the hot evening meal ready soon after the children return from school. The serving of a nourishing hot dish at school to supplement the carried lunch often removes the after-school lunch problem because the child's appetite is satisfied until the evening meal is served.

Sales of candy and other sweets at school should be discouraged. Fruit, pop-corn, and cookies are more healthful foods for children and therefore more suitable for them to sell.

THE CARRIED LUNCH

Milk and vegetables, especially tomatoes, are particularly important constituents of the school lunch. Where a hot dish containing them is not served, it is especially important that they be included in the carried lunch.

SUGGESTED LUNCHES

Pattern for the school lunch. The following suggested foods for the school lunch provide the essential nutrients in satisfactory balance.

1 cup of milk in some form Whole grain bread and butter 1 serving of vegetable or fruit or preferably both 1 serving of protein such as eggs, cheese, fish, or meat Something sweet for flavor and calories

Lunches not including a hot dish. Examples of good lunches to be carried to school where a hot dish is not served are:

- Bottle or jar of whole milk Carrot sandwich with wholewheat bread Egg sandwich Gingerbread Apple
- 2. Bottle of whole milk
 String beans and peanut-butter sandwich with graham
 bread
 Salmon sandwich
 Soaked dried prunes
- 3. Bottle of whole milk
 Cottage cheese and tomato
 sandwiches with wholegrain bread
 Apple sauce
 Cookies
- 4. Bottle of whole milk
 Shredded cabbage sandwich
 Jelly sandwich
 Cup of baked custard or rice
 pudding

Lunches including a hot dish. The following lunches include one hot dish each, the remaining foods being carried by the school child.

- 1. Cream-of-mixed-vegetable soup Bread-and-butter sandwiches Apple Cookies
- 2. Boiled potatoes with milk gravy
 Egg-and-tomato sandwiches
 Stewed dried pears or cherries
- 3. Creamed smoked salmon Bread and butter Dried fruit sandwich Celery
- 4. Buttered turnips
 Chopped meat sandwiches
 Canned fruit
 Cup cake

SANDWICH MAKING*

1. Bread made from flour which contains more of the whole grain than is found in white flour furnishes a much larger amount of minerals, vitamin B, and roughage, than white bread. If the day's needs are limited to few foods there is danger that certain growth-promoting or protective foods will be omitted. For this reason whole grains which are inexpensive and abundant are particularly valuable at this time. The coarser whole grains should not be given to young children or others who have certain digestive difficulties.

^{*}Time in making sandwiches can be saved and the lunch may be more palatable if the filling for the sandwiches is placed in a small jar or paper cup and eaten with plain bread-and-butter sandwiches.

2. A variety of kinds of bread for sandwiches may increase interest in the lunch.

Graham bread Whole-wheat bread White bread Rye bread

Oatmeal bread Prune, dried cherry, or raisin bread Prune-and-nut bread Boston brown bread

- 3. Bread that is twenty-four hours old is more easily used for sandwiches than is fresh bread.
- 4. Even slices cut about one-third inch thick make attractive sandwiches.
- 5. Creaming the butter makes it spread easily and go farther. To cream butter, cut it into pieces and heat it slightly until it is soft but not melted. The amount of butter can be doubled by beating in cream or milk. Keep the butter slightly warm while creaming it. Both slices of bread should be buttered evenly and to the edges of the slices.
- 6. If the filling is very soft, do not spread it to the edge of the slice. An even supply of butter on both slices helps to prevent soft filling from soaking into the bread.
- 7. Cutting the sandwich diagonally makes it easier to handle when eating.
- 8. Salad dressing highly seasoned with mustard, strong pepper, or vinegar should not be used in sandwiches for young children. Pickled products should be used sparingly.
- 9. Many sandwiches are improved by adding a leaf of lettuce or other greens. As substitutes for lettuce, shredded cabbage, raw spinach, young kale, chard or beet, garden-cress, watercress if from pure water, parsley, celery, dandelion leaves, and other greens may be used. Wash all raw foods carefully and dry them. These may be more palatable if packed separately to keep them crisp.
- 10. Many kinds of sandwiches are improved by being toasted just before they are to be eaten.
- 11. All mixtures should be tasted before making the sandwiches and additional seasoning added if needed. Many sandwich mixtures are improved by the addition of a little salt and tomato or lemon juice. If liquids or soft foods are added use only enough to form a mixture of the proper consistency to spread. Use a generous supply of filling when possible.

SUGGESTIONS FOR SANDWICH FILLINGS

Egg combinations. Eggs are more easily digested when cooked below the boiling point. This may be done by cooking them in water in the top of a double boiler. Egg combinations for sandwiches are suggested as follows:

 Sliced hard-cooked egg and salad dressing. Thin slices of crisp broiled bacon may be added.

- Minced hard-cooked egg mixed with salad dressing. Cream, salt, and vinegar or lemon juice may be substituted for the salad dressing.
- 3. Minced egg, American cheese, chopped pickle, and salad dressing.
- 4. Minced egg, chopped meat, and salad dressing.
- 5. Scrambled eggs and bacon. Cut the bacon into one-half-inch pieces, fry until crisp, pour off half of the fat, add one table-spoon of milk or cream to each egg, and salt. Stir in beaten eggs and scramble at a low temperature in a frying-pan or cook in a double boiler. Chopped left-over meat may be used instead of bacon.
- Minced hard-cooked egg, broiled diced bacon, and salad dressing.
- 7. Minced hard-cooked egg, diced celery, chopped nuts, and cream or salad dressing.
- 8. Eggs scrambled with canned tomato, diced onion, and salt.
- Salad dressing containing a little chili sauce, piccalilli, relish, chopped pickle, olive or pimiento, and minced hard-cooked egg.

Meat and Fish combinations suitable for school-lunch sandwiches are suggested as follows:

- Chopped boiled liver, minced hard-cooked egg, salad dressing.
 A small amount of meat sauce or chopped sour pickle may be added.
- 2. Boiled or roasted beef, veal, lamb, mutton, or chicken sliced thin and covered with grated raw carrot, salad dressing.
- Chopped boiled beef, diced celery, chopped pickle, salad dressing.
- 4. Chopped boiled or roasted meat, salad dressing.
- 5. Chopped meat, minced eggs, salad dressing.
- 6. Broiled diced bacon, chopped raw mild onion, salad dressing.
- 7. Chopped chicken, green pepper, a little diced pickle.
- 8. Chopped chicken, diced celery, salad dressing.
- 9. Thin sliced bacon cooked crisp, crushed and spread on buttered bread.
- 10. Sliced boiled tongue, a very little horseradish.
- 11. Headcheese, salad dressing.
- 12. Boiled corned beef and a little chili sauce.

- 13. Diced boiled liver, chopped onion, boiled rice mixed.
- 14. Dried beef ground with cheese and moistened with a little catsup and cream.
- 15. Flaked salmon, salad dressing.
- Flaked salmon or other fish, diced celery or a little pickle, salad dressing.
- 17. Minced sardines added to creamed butter.

Cheese combinations for sandwiches may include any of the following:

- 1. Cottage cheese, sliced tomato, salad dressing.
- Cottage cheese on one slice, jam, jelly, honey, marmalade, or conserve on the other.
- 3. Cottage cheese on one slice, minced dried stewed prunes on the other.
- 4. Cottage cheese mixed with diced onion and chopped nuts.
- 5. Cottage cheese mixed with pulp of canned tomato, celery salt, and paprika.
- 6. Cottage cheese, diced olives, salad dressing.
- 7. Cottage cheese on one slice, mixture of grated raw carrot, a little grated onion, and salad dressing on the other.
- 8. Cottage cheese, diced green peppers.
- 9. Cottage cheese, broiled diced bacon, chopped chives, ground nuts.
- 10. Ground or minced American cheese, cream to moisten, salt, celery salt, and paprika, with or without grated onion.
- 11. Ground American cheese, diced olive, pimiento or a small amount of pickle, salad dressing.
- 12. Ground American cheese, canned or fresh tomato.
- Ground American cheese, hard-cooked egg, a small amount of pickle, salad dressing.
- 14. Ground American cheese, ground walnuts, a small amount of dill pickle, salad dressing or cream.
- 15. Sliced American cheese. Toast sandwich slowly.

Nut combinations. Any of the following combinations are suggested:

- Peanut butter mixed with jam, jelly, honey, marmalade, conserve, or sirup.
- 2. Peanut butter, a little chopped pickle, or chili sauce or catsup, salad dressing.

- 3. Peanut butter softened with warm water, cream, salt, lemon juice or tomato juice.
- 4. Peanut butter, ground dried fruit, salad dressing or fruit juice or cream.

The peanut butter and fruit mixture without the cream may be prepared in quantity if kept in a cool place.

- 5. Finely chopped walnuts or other nuts, salad dressing.
- 6. Equal parts of finely chopped walnuts or other nuts and jelly, jam, or honey.

Vegetable combinations like the following make delicious sandwiches for the school lunch:

- Lettuce, shredded cabbage, raw spinach, watercress if from pure water, diced celery, young leaves of curly kale, chard, dandelions or other greens, salad dressing. Wash all raw foods carefully.
- 2. Shredded raw carrot, a little grated onion, salad dressing.
- 3. Sliced tomato, salt or salad dressing.
- 4. Shredded cabbage or other greens, ground nuts, and grated onion mixed with salad dressing.
- 5. Fresh or canned string beans, peanut butter, salad dressing. Boil home-canned beans thoroughly (10 minutes) after opening them and before tasting. Mix equal parts of peanut butter and salad dressing.
- Baked beans or lima beans, broiled diced bacon or sliced tomato or chili sauce.
- 7. Baked beans mixed with canned tomato, a little horseradish and chopped onion.
- 8. Shredded raw spinach, a little grated onion, salad dressing.
- 9. Two-thirds grated raw carrot, one-third ground raisins or other dried fruit, salad dressing.
- 10. Sliced tomato with crisp bacon.

Fruit combinations make sweet sandwiches which can serve as dessert.

- Ground dried fruits such as prunes, pears, or cherries, mixed with orange juice or tart canned fruit juice. Soak fruit a few minutes in warm water and dry before grinding. The fruit mixture can be made in a quantity if kept in a cool place. Grated or finely ground orange rind and salad dressing may be added just before using.
- 2. Ground dried fruit, ground nuts, and salad dressing or fruit juice.

- Ground dried prunes mixed with orange marmalade or apricot marmalade.
- 4. Ground dates and nuts moistened with lemon or orange juice or canned fruit juice.
- 5. Jelly, jam, marmalade, conserve, honey or fruit butter, with or without ground nuts.

PACKING THE CARRIED LUNCH

- 1. Milk may be carried in half-pint milk bottles or fruit jars, screw-top jars such as those in which candy and salad dressing are sold, jelly glasses with tight covers if carried carefully, and bottles and paper cartons with tight-fitting tops. The inside of metal tops may be protected by waxed paper.
- 2. Canned fruits, stewed dried fruits, salads, rice pudding, custards, cereal puddings, junkets, gelatins, tapioca puddings made with milk, cornstarch puddings, cottage cheese, and other semi-soft foods may be carried in jelly glasses with tops, screw-top jars, or covered paper cartons.
- 3. Lunch containers should be clean and should protect the flavor and shape of the food. They should be washed and rinsed daily with hot water. Satisfactory lunch containers:

Tin or granite pail. Nail holes for ventilation are necessary and may be in form of child's initials.

Folding tin box.

Tin box with vacuum jar.

Less satisfactory containers:

Cardboard box. Cannot be cleaned and crushes easily.

Fiber or cloth box. Difficult to clean.

Paper sacks. Do not protect food from getting crushed.

Baskets. Difficult to clean.

Unventilated metal containers. These result in all foods tasting of foods with stronger odors.

- 4. Firm food should be packed in the bottom of the container.
- 5. Food should be packed compactly to prevent shaking.
- 6. Each kind of food should be wrapped separately in waxed paper. Sandwiches should be wrapped carefully to prevent drying.
- 7. Two paper or cloth napkins are useful. Place the napkins last in the lunch box. One napkin is for use as a desk cloth.
 - 8. Knives, forks, or spoons should be included if needed.
- 9. In hot weather soft, moist foods in which molds are likely to grow rapidly should be omitted; for example, sliced meat or peanut butter is to be preferred to chopped meat moistened with salad dressing.

10. A lunch-box drawer in the kitchen or pantry for accessories is a convenience. It may contain:

Waxed-paper roll Paper napkins Small glass jars Paper cartons Scissors Spatula String
Paper cups, forks, spoons
Straws
Toothpicks
Wrapping paper

THE HOT DISH

Milk, vegetables, and egg dishes should form the basis of the hot-lunch dish. If parents have canned vegetable mixtures to provide for the school lunch or if a variety of fresh vegetables is available, cream-of-vegetable soup will occupy an important place. Salmon, clams, oysters, or other fish may be added, forming chowders. To avoid having pupils tire of the milk-and-vegetable combinations, cream soups may well be alternated with meat-stock soups, buttered vegetables, cocoa, cereals, eggs, creamed and baked fish, and meat dishes. If eggs can be purchased and stored at the season of lowest price, this valuable food may well be used frequently in the noon lunch.

The lunch should not include dishes which digest slowly such as fried foods, sausage or wieners, or which may be irritating to the digestive tract, such as mustard, pepper, pickles, and candies. Coffee and tea should not be included. The hot-lunch schedule should be made out in advance and posted so that lunches from home can be planned to supplement it.

The object of having the school hot-lunch dish is defeated unless each child has some of it. If several dishes are prepared at school, children should have the hot dish although they may be allowed a choice among other foods served. In some schools the hot dish is served for from three to five cents and the hot dish with sandwich and dessert is sold for eight to ten cents.

ADVANTAGES OF A HOT DISH WITH THE CARRIED LUNCH

- 1. A well-planned meal is seldom accomplished in the cold lunches brought to school in the average lunch box.
- 2. Many children eat more and are willing to bring a more adequate lunch from home if it is supplemented with hot food. Underweight and lowered resistance are improved in many cases when the child increases the amount of food he eats at school.
 - 3. The hot dish encourages eating slowly.
- 4. The hot dish at noon supplementing the lunch brought from home should satisfy the child's hunger and need for food and he is less likely to overeat after school. Eating a normal evening meal is thus encouraged.
- 5. The preparation, serving, and financing of the hot-lunch dish offers educational opportunities for guidance in understanding food values, food preparation, serving, table etiquette, sanitation, and in some cases knowledge of food prices and food buying.

- 6. In cases of under-privileged children, the hot-lunch dish may be the only wholesome, adequate food eaten during the day.
- 7. Children enjoy a hot lunch more than a cold one. They also enjoy participation in the preparation or serving of the hot dish. It makes the noon meal a happy social occasion.
- 8. Improvement in behavior and even in the scholarship of many children is noted and reported following the introduction of the hot dish.
- 9. Teachers receive the same health benefits as children and can therefore work more efficiently.

METHODS OF FINANCING THE HOT DISH

In order to feed those children who are most in need of food the hot dish should be available to every child and at the lowest possible cost. In some schools all the food and supplies are furnished by the families. Those families that can contribute food or money should do so. If a central fund of money is necessary to meet a part of the expenses different methods are used:

- 1. Appropriated by the school board.
- 2. Supplied from proceeds from entertainments such as school plays, community dinners, basket suppers, bazaars, or dances.
- 3. Donated by an organization or by individuals. Parent-teacher associations and women's clubs often take this responsibility.
- 4. Collected from parents or children, preferably monthly or weekly rather than daily. In larger schools the sale of a printed or mimeographed card upon which meals or cents can be punched has been found practical. When children are given money for school lunches, the temptation is great to spend some of it on candies, pie, and pickles.

TYPES OF MANAGEMENT IN THE PREPARATION OF THE HOT-LUNCH DISH

- 1. Food prepared by a paid worker at school or at her home. The person employed may be a homemaker living near the school who has free time or a high school girl who must earn her way.
- 2. Food prepared by older girls and boys under the supervision of a teacher or a parent.
- 3. Food prepared at home or at school by mothers who take turns as individuals or in groups of two. Women who are not skillful in food preparation can help in other ways.
 - 4. Food prepared by a teacher.
- 5. Food prepared at home, carried to school by each child in glass jars, and jars placed in pan of water a half hour before lunch and heated quickly.

- 6. Food prepared at home and brought to school in thermos bottles.
- 7. Food prepared by a 4-H cooking club or other 4-H clubs.
- 8. Hot dish prepared as part of the school cafeteria luncheon.

Preparation of the hot dish by home economics classes is inadvisable, as a regular responsibility, as such an arrangement interferes with a balanced program of instruction in foods and nutrition.

CHECKING THE RESULTS OF THE IMPROVED SCHOOL LUNCH

Parents, teachers, and children would find it interesting to study improved conditions in the school to which the improved noon lunch may have made a substantial contribution. The improvements noted could be discussed at parent-teacher meetings or other group meetings.

Health results to which the improved noon lunch may contribute are:

- 1. Manifestations of physical fitness such as improved posture and vigor, zest in play and work, color of skin, condition of hair.
- 2. Decrease in absence from school owing to illness.
- Normal gain in weight and height of children during a given period. There is danger of over-emphasis on these points. Gain in weight and height is but one of many indications of health.

Educational results from the improved noon lunch may be observed in:

- 1. Increased interest in school work.
- 2. Less restlessness, listlessness, lack of concentrated attention and effort.
- 3. Improved scholarship in some cases.
- 4. Knowledge shown of balanced dietary through better food selection in carried lunches.
- 5. Improved habits of cleanliness.

Social results from the improved noon lunch include:

- 1. Cooperation among pupils, teachers, and parents.
- Improvement in consideration for others and the observance of courtesies.
- 3. Ideals of better living.
- 4. Increased interest of the community toward its responsibility for child welfare and community health.

SERVING THE HOT DISH

Participation by the children in serving and clearing away the lunch, if wisely directed, gives children practice in sharing happily in responsibilities. Girls and boys may be divided into groups of three or four, each group taking turn for a week at various duties, such as passing desk covers, cooking or serving the hot dish, washing dishes, and sweeping the floor. The duties of groups and names of pupils in each group should be posted continuously.

Three ways of serving. The type of service depends on the size of the school and the space and equipment. Children should be encouraged to wait on themselves and to return the soiled dishes to the place assigned. Three types of service are frequently used:

- 1. In a small school if a table is available, all sit down together at the table for lunch. A clean white cover of oilcloth or other material is desirable. Home-made stools, or boards on boxes may be substituted for chairs. Lunch served at a table affords excellent opportunity for teaching table setting and table manners.
- 2. Lunch is served on school desks. Desks should be covered with clean cloth or paper which may be cut out by primary pupils. Each child may keep in his desk two napkins made of fringed crepe, pieces of a worn sheet or of a towel.
- 3. Where space permits, the best plan is to serve lunch in a special lunch room at tables with chairs or benches.

Rules for table setting. Whether pupils eat in groups at tables or individually at their desks accepted rules for arrangement of silver, dishes, and napkins should be observed.

- 1. Lay the silver parallel, at right-angles to the edge of the table, one inch from the edge.
- 2. Place the knives, if used, at the right of the plate with the cutting edge toward the plate.
- 3. Place the forks at the left of the plate, tines up. If no knives are used, the forks are placed at the right.
- 4. Place the spoons at the right of the knife, bowls up, or at the right of the bowl or plate if no knife is used.
- 5. Place the silver for serving beside the serving dish, parallel to other silver.
- 6. Place the glass at the tip of the knife: if no knife is used, at the tip of the spoon.
- 7. Place the napkin one inch from the edge of the table on the lefthand side with the hems parallel to the silver and to the edge of the table. The open corner of the napkin is the lower right-hand corner.
- 8. Place serving dishes parallel with the edge of table. Place dishes with handles so that the handles are parallel to the edge of the table.

9. Place a low-growing plant or a low bouquet of flowers, ferns, leaves, or berries in the center of the table.

Good manners are as important at school as in the home.

- 1. Be on time at meals.
- 2. Wash hands clean with soap and water before each meal, and after returning from the toilet.
- 3. When standing or marching in line to be served the hot dish, observe the rules of good posture—stand tall; feet parallel; chin in; head back; abdomen held in; chest out.
 - 4. Where possible, remain standing until all are ready to be seated.
 - 5. Where possible, wait until all are served before beginning to eat.
- 6. Use a napkin on the lap. Remove food that remains on the lips with the napkin.
 - 7. Sit straight at the table or desk with hips well back on the seat.
- 8. Make as little noise in eating as possible. Avoid the clatter of the spoon against the bowl, and avoid a sucking sound when eating soup. Dip soup away from you in the bowl.
- 9. Do not reach in front of another person, but ask to have the desired food passed, addressing the person by his or her name.
- 10. Reserve waste such as apple cores in the lunch container or on the plate and at the end of the lunch deposit it in a container for waste. (Avoid throwing or dropping waste objects or water on the floor.)
- 11. Take part in conversation. Talk about cheerful and interesting subjects. Do not interrupt when another person is talking.
- 12. Avoid playing with table utensils. Avoid nervous movements of hands, feet, or body. Cultivate poise and control.
- 13. Remain seated until excused. If it is necessary to leave the table before finishing, ask the person in charge if you may please be excused.

EQUIPMENT AND SUPPLIES FOR THE HOT-LUNCH DISH

A bowl and spoon for each child may be brought from home and washed and kept at school or taken home for washing. Kettles, other necessary equipment and cupboard for storing them, are often contributed by parents, other interested individuals, or merchants under the leadership of a committee of the parent-teacher association. Equipment, including dishes for children, may be purchased from the lunch fund.

A very inexpensive cupboard may be made from a few boards or from packing boxes, using curtains made from flour sacks. In some schools, cupboards, curtains, and table are made by the older children. The table may well be covered with oilcloth or painted. The lower part may be boxed in and shelves made for dishes and supplies.

Staple groceries may be kept in glass jars or in painted tin cans.

Suggestive list of simple equipment. All the following pieces of equipment will be found useful in preparing and serving hot lunch dishes.

A stove on which liquids can be boiled.

A cupboard for equipment and supplies-preferably with door or closefitting curtain.

A work table with washable surface or an improvised table made from

saw horses and planks.

A large double boiler with a cover or one made of two kettles, or one kettle and a pan, one of which fits inside the other, the inside one resting on perforated tin-pail covers.

2 medium-sized pans and covers Measuring cup Measuring spoons Butcher knife 2 paring knives Large stirring spoon, preferably wooden Fork 2 tablespoons 2 teaspoons Egg-beater Strainer or colander

Mixing bowl

Can opener Vegetable brush 2 hot-dish holders 2 dish pans 6 dish towels 2 dish-cloths Kettle scraper Cans and jars for staple supplies

Garbage container and cover Soup spoon and bowl or cup for each person

Clothes-line or rack for drying towels and dish-cloth

Desirable additional equipment. An oven will make possible a variety of appetizing hot dishes. A small oven for use on the top of the stove can be made from an oil can. The bottom of the can is removed and one side made into a door. Other useful equipment may be the following:

2 baking pans Food-chopper Teakettle Ladle Large pitcher Kitchen salt shaker Potato masher Frying-pan for chowders Plate and fork for each person A few extra dishes for guests Sink with drain boards

Pancake turner Long-handled paddle Quart measure Spatula Case-knives and additional spoons and forks Additional pans and bowls Metal or linoleum top for table Serving dishes for vegetables

Dish-rack (for drying dishes)

Suggestive list of food staples and cleaning supplies. The following supplies can be obtained in suitable amounts and kept for use as needed.

Salt Sugar Flour Cocoa Rice Macaroni Wheat Canned vegetables and soups Bacon or salt pork Canned meat, fish, and other sea food Onions Potatoes

Cabbage Carrots Vanilla.

Prunes and other dried fruits

Dried celery leaves

Tray for each child

Dried vegetables such as beans, corn, and peas

Cheese

Peanut butter Soap

Scouring powder Paper napkins

Supplies to be obtained fresh as needed are:

Milk and cream Butter Fresh vegetables Fresh meat and soup bones Eggs

PREPARATION OF THE HOT SCHOOL-LUNCH DISH

Rules for cooking the hot dish are:

- 1. Cook milk and cereals over hot water to avoid burning.
- 2. To avoid lumps in the white sauce, combine melted fat and flour off the stove, and add this mixture slowly to the hot milk, stirring constantly until the mixture has thickened. Thickened milk is completely cooked in fifteen minutes near the boiling point and need not be boiled. To remove lumps from a white sauce beat with an egg beater.
- 3. Vegetables should be placed in boiling water and cooked as quickly as possible. Overcooking vegetables spoils their flavor and appearance, decreases their food value, and in some cases makes them less easily digested.
- 4. In making soups from home-canned vegetable mixtures, add any of the following seasonings or combinations: fresh grated onion, fried brown diced onion, diced cooked potatoes, alphabet or animal noodles, vermicelli, macaroni, rice, wheat, wheat hominy, cooked dried peas and beans, chopped cabbage, fried diced bacon or salt pork, minced hard-cooked eggs, beaten raw eggs, celery salt, bay-leaves or peppercorns. Combinations of these seasonings improve the flavor, add variety and food value.
- 5. In making cream soups from any mixture which includes tomatoes, follow the precautions given under Cream of Tomato Soup.
- 6. Boil all non-acid home-canned vegetables, meats, and fish ten minutes after opening the can and before tasting the food. Count the time after the food begins to boil.
- 7. Where practical, use in soups water in which vegetables were cooked or canned.
 - 8. Taste all dishes before serving and add seasoning if necessary.
- 9. Boil cracked bones in a cloth or sack to avoid danger from splinters in the stew or soup.
- 10. Soda destroys vitamins and should be used sparingly or not at all in cooking vegetables.

Precautions and safety measures. The school hot-lunch dish should not be attempted unless sanitary conditions can be maintained. Careful, systematic, clean housekeeping should be observed. A place for everything and everything in its place saves time and confusion.

1. Persons handling food or dishes should have clean hands. Water, soap, and towels should be available. The wearing of hair nets by the girls who handle food may be desirable.

- 2. An adequate supply of water for dish washing is necessary.
- 3. Dishes and silver should be washed with hot water and soap, and should be rinsed with boiling water. Dishes belonging to children who have colds or any infection should be washed separately or taken home to be washed.
- 4. In schools with no sink, dish-water should be disposed of at a distance from the school.
- 5. All working surface should be covered with washable material or clean paper and should be washed clean with hot water and soap daily.
 - 6. Garbage should be buried or burned each day if not collected.
- 7. Food should be kept covered and free from dust and dirt. Warm food should be cooled before it is covered.
- 8. Floors should be kept clean and should be swept without raising a dust. The desks or the table should be cleaned after the meal, but before the floor is swept.
- 9. Clean all vegetables and fruits carefully. Wash dried fruit, especially if it has been purchased in bulk.
 - 10. Use clean milk from tested, healthy cows.
 - 11. Ventilate the room after serving the lunch.
- 12. Children with colds or other contagious ailments should not handle food which is to be served to others.
- 13. Children should not be permitted to carry kettles of food which are too heavy for their strength.
- 14. Dish towels and dish-cloths should be washed regularly and kept clean.
- 15. The supply of drinking water should be readily available and in sufficient quantities. It should be tested regularly for purity. If not pure, it should be boiled before being used. A sample of water sent to the Department of Bacteriology, Oregon State Agricultural College, Corvallis, or to the State Department of Health, Portland, will be tested without charge. Send request for sterile container.
- 16. The common drinking cup or pail spreads disease. If the school does not have a sanitary type of water bubbler each child should use an individual cup which is washed regularly with hot water and soap.

Tabulations for use in preparing hot dish. The tables given below include facts useful in food preparation and particularly in preparing cooked food for large groups.

TABLE III. COMMON KITCHEN MEASUREMENTS

3 teaspoons equal 1 tablespoon 16 tablespoons equal 1 cup 2 cups equal 1 pint 2 pints equal 1 quart 4 quarts equal 1 gallon 8 quarts equal 1 peck 4 pecks equal 1 bushel 1 cup equals 8 fluid ounces

TABLE IV. CONTENTS OF COMMONLY USED TIN CANS

	Size		Contents
			Cups
ic 1		 	11 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
2 24		 	2 <u>1</u>
3		 	4

TABLE V. STANDARD OVEN TEMPERATURES

	-DEB 1. DESCRIPTION OF ELE	· LDMI DIGITA OIL	
	Description		Temperature
Slow oven			Degrees F. 250° to 350°
Moderate oven			350° to 400°
Hot oven Very hot oven			400° to 450° 450° to 550°

TABLE VI. APPROXIMATE AMOUNTS OF COMMON FOODS IN ONE POUND

Food	Measure of one pound		
Beverages			
Chocolate	- 53 cups grated		
Cocoa			
Water			
Milk	2 cups		
Bread stuffs			
Bread, white			
Bread crumbs Crackers, soda 2"x2"	- 4 cups - 140		
	- 140		
Cereals			
Flour, entire wheat	- 4½ cups		
Flour, white			
Rolled oats			
Rice			
Whole wheat			
Egas			
With shell	_ 9 eggs		
Fats			
Butter	- 2 cups		
Lard			
Salad oil			
Fruits, dried			
Apples, A.P.*	7 cups		
Prines			
Raisins			
Sugar			
Granulated	0		
<u>- </u>	_ 2 cups		
Vegetables, dried			
Beans, Navy A.P.	_ 2+ cups		
Beans, lima	_ 2 1 cups		
Vegetables, fresh			
Beets, A.P.	_ 2 to 5 mature		
Cabbage, A.P.	1 to 1 medium head or 51 cups shredded		
Carrots, A.P.	5½ medium		
Celery	- 1 bunch		
Onions, A.P. Potatoes, A.P.	6 to 8 medium 2½ medium		
Fulatues, A.F.	22 incomm		

^{*}A.P. means as purchased. Salt: 1 ounce is 1% tablespoons.

TABLE VII. STANDARD AMOUNTS OF FOODS FOR ONE HUNDRED SERVINGS

Food	Standard amount for 100 servings*
Apples, baked	3 to 1 bushel
Apples, sauce	2 to 1 bushel
Beans, kidney	
Beans, lima	
Beans, navy	
Beans, string	4½ cans
Beef, dried	8 pounds
Beef, roast	
Beef, stew	
Beets, canned	
Beets, fresh	
Bones, soup	
Bread, 12-pound loaf; 30 slices per loaf	
Butter, 44 parts per lb.; 1-pat serving	2½ pounds
Cabbage, buttered	
Cabbage, creamed	25 pounds
Cabbage, salad	
Carrots, fresh	
Calliflower	1 to 2 crates
Celery, creamed, outsides	
Celery, heartsCocoa, a pound to 1 gallon of milk	1½ to 2 dozen
Corn, creamed	₫ pounu
Corn, scalloped	4 cans
Cornmeal, mush	
Hamburger, cakes	
Hamburger, loaf	20 pounds
Hominy, corn	6 pounds
Kale	13 huchale
Liver, straight	23 pounds
Liver, with bacon	18 pounds
Macaroni	7 pounds
Milk	
Oats, rolled	4 pounds
Onions, buttered	35 pounds
Onions, creamed	30 pounds
Parsnips	1 bushel
Peas, buttered	4 cans
Peas, creamed	3½ cans
Peas, with carrots	2 cans
Potatoes, mashed	
Prunes, dried	9 pounds
Rice, steamed	7 pounds
Rutabagas	🕯 bushel
Salmon, loaf	12 cans
Salmon, scalloped	16 cans
Sauerkraut	
Spaghetti	
Spinach, canned	
Spinach, fresh	
Split peas, soup	6 pounds
Tomatoes, breaded	3 cans

^{*}All cans are No. 10 unless otherwise specified.

SUGGESTIONS FOR HOT SCHOOL-LUNCH DISHES

Simple hot dishes. Under certain conditions only a very simple hot dish can be prepared. The following dishes are suggested for situations requiring a minimum of time and work.

- Canned soup. Boil thoroughly before tasting. Add hot milk or water.
- 2. Postum made with hot milk.

- 3. Hot cocoa, which should not be strong.
- 4. Boiled, baked, or mashed potatoes with butter.
- 5. Rice cooked in milk in a double boiler.
- 6. Boiled rice and prunes or raisins with milk and sugar.
- 7. Scrambled eggs.
- 8. Creamed canned vegetable. Boil vegetable thoroughly before tasting. Add cream or milk.
- 9. Soup made from home-canned mixed vegetables. Boil thoroughly before tasting. Add milk and fresh onion, cabbage, broiled bacon, bay-leaf or celery leaves.
- 10. Cereals with milk and granulated or brown sugar.
- 11. Boiled macaroni or rice with grated cheese over it.
- 12. Boiled macaroni or rice with hot canned tomato soup over it.
- 13. Boiled rice with crushed fruit or sirup.
- 14. Boiled whole or cracked wheat or wheat hominy with milk and sugar.
- Sandwiches toasted over the school fire in long-handled wire holders.
- 16. Stewed tomatoes with sugar and butter.

Suggested schedule for eight weeks. The following schedule provides a variety of hot dishes for each school day for eight weeks. Recipes for these and similar dishes are given in this bulletin.

SUGGESTED SCHEDULE FOR HOT SCHOOL-LUNCH DISHES

	Monday	Tuesday	Wednesday	Thursday	Friday
FIRST WEEK	Cream of potato soup	Buttered turnips	Macaroni and cheese	Cream of tomato soup	Cracked wheat with cheese sauce or butter
SECOND WEEK_	Buttered car- rots and peas	Cocoa	Lima-bean soup	Rice omelet or savory beets	Creamed salmon
THIRD WEEK	Rice and dried prunes or other fruit with milk or cream		Baked potato and milk gravy	Scrambled eggs or cream of corn soup	Clam soup
Fourth WEEK.	Creamed cabbage	Macaroni and tomato	Tomato bisque	Lamb stew with vege- tables	Mashed potatoes and brown gravy
FIFTH WEEK	Cream of carrot soup	Bean stew or potato omelet	Rice-tomato soup	Cracked wheat with fruit	Split-pea soup
SIXTH WEEK	Cream of spinach soup	Corn chowder	Creamed carrots and celery	Vegetable soup with meat stock	Salmon loaf
Seventh week	Corned beef hash	Cream of cabbage soup	Scalloped potatoes	Clam chowder	Cream of celery soup
EIGHTH WEEK.	Potato omelet	Peanut- butter soup	Creole rice or succotash	Cream soup from mixed canned vege- tables	Scalloped cabbage

RECIPES FOR HOT SCHOOL-LUNCH DISHES*

Recipes (pages 25-42) and schedule were prepared with the cooperation of Georgia C. Bibee, Assistant Professor of Institution Economics, School of Home Economics, Oregon State Agricultural College.

SAUCES

White Sauce (one quart)

		 	
Ingredients	THIN Used for: Cream soup; Scalloped dishes made of starchy foods	MEDIUM Used for: Sauce for creamed vegetable and other creamed dishes and scal- loped dishes	THICK Used for: Croquettes Souffles
Flour Butter Salt Pepper (may be omitted) Milk or vegetable water	1 c 2 c 1 t 1 t 1 t	½ c 1 to ½ c 1 t 2 t 1 qt	1 c 2 to 1 c 1 t 2 t

Scald the milk in a double boiler. Melt the fat and add the flour and seasonings. Add the flour mixture a little at a time to the scalded milk and stir until it thickens. Cook fifteen minutes over hot water. A whip is a convenient utensil for stirring the milk to prevent lumps forming as the flour mixture is added.

For 100 servings of creamed dishes such as creamed vegetables, use 2 gallons of medium white sauce or cream.

Cheese Sauce

	Number of servings (12 servings to one quart)				
Ingredients	12	25	50	75	100
Thin white sauce. Cheese Salt Cayenne Paprika	2½ pts ½ lb 1 t Few grains ½ t	4½ pts 1 lb ½ tb Few grains ½ t	4½ qts 2 lbs 1 tb 1c t ½ t	7 qts 3 lbs 1½ tb 16 t 2 t	9 qts 4 lbs 2 tb 1 t

Prepare thin white sauce (see recipe on this page). Cut cheese into small pieces or put through food chopper and add to hot white sauce. Add the seasonings. Stir until cheese is melted. Serve at once.

Use as a sauce over bread, toast, potatoes, boiled rice, boiled macaroni or spaghetti, boiled wheat or hominy, and vegetables such as asparagus and cauliflower. A little catsup may be added.

^{*}Abbreviations used in all the recipes are as follows: c=cup; t=teaspoon; tb=table-spoon; gal=gallon; qt=quart; pt=pint; lb=pound.

SOUPS

Meat Stock or Bouillon

	Nu	mber of servin	gs (5 servings	to one qua	rt)
Ingredients	12	25	50	75	100
Lean beef and bone (a meat and bone) Water Salt Salt Schopped Celery, chopped (May be omitted) Onion, chopped Bay-leaves (May be omitted)	3 lbs 2½ qts 1 tb 1½ c 1½ c	6 lbs 5 qts 2 tb 3 c 3 c 5 c	12 lbs 2 gal 2 c 1 c 1 c 1 c 1 c 1 c 1 d 1 c	18 lbs 4 gal 6 tb 2½ c 2½ c 2½ c 2½ c	25 lbs 5 gal \$ c 3 c 3 c 3 c

Crack the bone into short lengths and soak in cold water. Cut the meat into small pieces and brown on all sides in a hot skillet. Add the browned meat to the liquid and bones and let stand for one hour. Simmer for 4 to 5 hours. Add the vegetables and seasoning the last hour of cooking. Strain. Use as basis for different soups. To clarify, chill over night, remove cake of fat that forms on top, and add one egg white for each quart of stock. Bring slowly to the boiling point, stirring constantly. Boil 15 to 20 minutes without stirring. Strain through cheese-cloth. Reheat and serve as bouillon if desired or use as basis of a large variety of soups.

Cream of Spinach Soup

	Nu	mber of servin	igs (servings ar	e about 🖁 cup)	
Ingredients	12	25	50	80	100
Milk Butter Flour Salt Water Spinach Onions Celery leaves (May be omitted)	2 qts d c d c d c d c d tb l pt l No. 2d can or 2 pint cans l medium 2 oz	1 gal 1 c 1 c 2 tb 1 qt 2 No. 2½ cans or 4 pint cans 1 medium 2 lb	2 gal 2 c 2 c 4 c 2 qts 1 No. 10 can or 7 pint cans 2 medium	3 gal 3 c 3 c 6 tb 3 qts 8 No. 2 cans or 10 pint cans 3 medium	4 gal 4 c 4 c 1 c 1 gal 2 No. 10 cans or 1 pint cans ½ lb or 4 medium 1 lb

Boil the spinach 10 minutes if home-canned. Chop the onions and celery coarsely and cook in the boiling water until tender. Press vegetables through a sieve. Make a thin white sauce (see page 25). Add sieved vegetables and salt to the white sauce, bring to scalding point, and serve. Spinach soup has a tendency to curdle if allowed to stand. If soup curdles beat vigorously with egg beater just before serving.

Split-pea S	Soup
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<i>3</i>	Number of servings (servings are about 3 cup)					
Ingredients	12	25	50	75	100	
Split peas	1 lb 1 qt 1 medium	1 lb	2 lbs 1½ gal ½ lb 2½ qts 1 gal ½ qt 3 oz or 5½ tb ½ lb	3 lbs 2½ gal 2 lb 2 lb 2 lb 4 qts 1½ gals 1½ qts 1½ qts 4 oz or 7 tb 2 lb 3½ c	4 lbs 3 gals 1 lb 3 lb 5 qts 2 gal 13 qts 1 qts 6 oz. or 11 tb 1 lb 5 c	

Soak the peas overnight. Drain, add one half of the water, onions, salt and celery tops. Cook 2 hours. Add carrots and tomatoes and cook $\frac{1}{2}$ hour longer. Put through colander or sieve. Cook cabbage in the remaining half of the water uncovered for 5 to 10 minutes. Combine mixtures. Thicken and season. Heat milk. Add vegetable mixture to milk just before serving.

Cream of Peanut Butter Soup

	Number of servings (servings are about a cup)				
Ingredients	12	25	50	80	100
Peanut butter Onions	1 c 5 medium 1 pt 2 qts ½ c 2 t 1 t	2½ c 1½ lbs 1 qt 1 gal ½ c 4 t 2 t	2½ Ibs 3 lbs 1½ qts 2 gals 1½ c 2½ tb 4 t	4 lbs 5 lbs 21 qts 3 gals 2 c 1 c 2 tb	5 lbs 6 lbs 3 qts 3 gals 2 c 5 tb 3 tb

Peel onions and cut or grind into small pieces. Add the peanut butter and boiling water, stir until blended, and boil 15 minutes. Heat the milk and add the thickening made from the flour and a little cold water. Mix salt and celery salt dry and add to milk. Combine peanut-butter mixture with milk, scald, and serve.

Celery stock may be substituted for celery salt and used as part of the liquid in cooking the onions and peanut butter. The proportion of celery stock is 2 quarts to 80 servings.

Cream of Vegetable Soup

	Number of servings (servings are about 3 cup)						
Ingredients	12	25	50	80	100		
Milk Butter Flour Salt Water, boiling	2 qts 2 c 1 tb 13 c	1 gal 1 c 1 c 2 tb 3 c	2 gal 2 c 2 c 2 c 1 c 1 qts	3 gal 3 c 3 c 6 tb 2 qts	4 gal 4 c 4 c ½ c 3 qts		
vegetables	1 pt ½ 3 tb	2 pts	4 pts 1½ ½ c	6 pts 21 2 c	8 pts 3 1 c		
greens	l ģ C	l I C	∠ C	1 3 5	4 C		

Make thin white sauce (see page 25). Boil home-canned vegetables and spices tied in a cloth in the boiling water and the liquid from the cans for 10 minutes. Remove spices. Combine canned vegetable and white sauce. Add grated onion or chopped cabbage or other fresh greens such as spinach or parsley, and continue to cook for 10 minutes.

Flavor may be varied by addition of dried celery leaves, celery stock, celery salt, diced fried bacon or salt pork, minced hard-cooked eggs, raw beaten eggs, ground cloves or peppercorns.

Cream of Tomato Soup

	Num	ber of serving	gs (servings a	re about 3 cu	p)
Ingredients	12	25	50	80	100
Milk	2 qts	1 gal 1 c 1 c 3 qts 2 tb	2 gal 2 c 2 c 6 qts 1 c	3 gal 3 c 3 c 9 qts 6 tb	4 gal 4 c 4 c 3 gal ½ c

Make a thin white sauce of the butter, milk, and one half the flour (see page 25). Heat the strained tomatoes quickly and thicken with the remaining half of the flour mixed with a little cold water. Just before serving, remove both mixtures from the stove, add the tomato gradually to the milk mixture stirring constantly. Do not add milk to tomato. The addition of soda to the tomato prevents curdling, but also destroys the protective food substance, vitamin C. When soda must be used the proportion is 1 teaspoon soda for 50 servings of soup. Serving immediately after combining helps to prevent curdling.

For additional flavoring, the following ingredients may be added: for 50 servings, 1 large onion grated, 6 tablespoons sugar, 3 bay-leaves, 3 sprigs of parsley chopped, 1 teaspoon cloves, 2 teaspoons of peppercorns. Tie spices in a cloth and remove from soup before serving.

Cream of Cabbage Soup

	Number of servings (servings are about 2 cup)					
Ingredients	12	25	50	80	100	
Milk Butter Flour Salt Water, boiling Cabbage	2 qts	1 gal 1 c 1 c 2 tb 1 gal	2 gal 2 c 2 c 4 c 2 gal	3 gal 3 c 3 c 6 tb 3 gal	4 gal 4 c 4 c ½ c 4 gal	
Pepper	head å t	3½ lbs	7 lbs	10 lbs 1 t	13 lbs 1 ₂ t	

Make thin white sauce (see page 25). Chop cabbage and place in boiling water. Boil without cover rapidly from 5 to 8 minutes or until tender. Drain. Combine with white sauce. Add water in which cabbage was cooked to make soup consistency desired.

Cream	of	Carrot Soup

	Number of servings (servings are about 3 cup)				
Ingredients	12	25	50	80	100
Milk Butter Flour Salt Water, boiling Carrots	2 qts	1 gal 1 c 1 c 2 tb 1 qt 2 lbs	2 gal 2 c 2 c 2 c 1 c 2 qts 4 lbs	3 gal 3 c 3 c 6 tb 3 qts 6 lbs	4 gal 4 c 4 c ½ c 1 gal 8 lbs
Onions	1 medium	lb or 2 medium	∄ lb	₹ lb	1 lb
Pepper	∄ t	½ t	å t	1 t	1½ t

Slice onions and carrots and cook in boiling water until tender. Press through sieve or colander. Save the water. Make thin white sauce (see page 25). Add vegetables and seasoning and bring to scalding point just before serving.

Cream of Celery Soup

	Number of servings (servings are about 3 cup)					
Ingredients	12	25	50	80	100	
Milk Butter Flour Salt Water, boiling Celery stalks and	2 qts 2 c 3 c 1 tb 1 pt	1 gal 1 c 1 c 2 tb 1 qt	2 gal 2 c 2 c 1 c 2 qts	3 gal 3 c 3 c 6 tb 3 qts	4 gal 4 c 4 c 克 c 1 gal	
leaves Onions Carrots	½ lb 1 medium 1 medium	1 lb 2 medium ½ lb or 2 medium	2 lbs 3 lb or 4 medium 3 lb or 3 medium	3 lbs 3 lb or 6 medium 1 lb or 6 medium	3½ lbs 1 lb or 8 medium 7 medium	

Cut the celery into 1-inch pieces. Slice the onions and carrots. Cook the vegetables in the boiling water until tender. Press through colander or coarse sieve. Make thin white sauce (see page 25). Combine the mixtures and bring to the scalding point just before serving. Celery soup has a tendency to curdle if allowed to stand. If soup curdles, beat vigorously before serving.

Cream of Clam Soup

	Num	ber of serving	s (servings ar	e about 🖁 cu	р)
Ingredients	12	25	50	80	100
Milk	2 qts 1 c 1 tb 1 tb 1 pt 1 pt	1 gal 1 c 3 tb 2 tb 1 qt 1 qt	2 gal 2 c 6 tb \frac{1}{4} c 2 qts 2 qts	3 gal 3 c 9 tb 6 tb 3 qts 3 qts	4 gal 4 c 3 c 1 c 4 qts 1 gal

Boil clams in own liquor and boiling water for 15 minutes. Make thin white sauce (see page 25) omitting salt. Combine, add salt, and bring to scalding point just before serving. Clam soup has a tendency to curdle if allowed to boil or to stand.

Cream of Corn Soup

Ingredients	Number of servings (servings are about 3 cup)				
	12	25	50	80	100
Milk Butter Flour Salt Corn Onion, chopped	2 qts	1 gal 1 c 1 c 2 tb 3 pts or 2 No. 2 cans 2 tb	2 gal 2 c 2 c 4 c 5 pts or 4 No. 2 cans	3 gal 3 c 3 c 6 tb 8 pts or 6 No. 2 cans	4 gal 4 c 4 c 3 c 10 pts or 8 No. 2 can

Run corn and onion through food-chopper or coarse sieve and boil 10 minutes. Prepare thin white sauce (see page 25) omitting salt. Add corn and salt. Bring to scalding point just before serving. Paprika and chopped parsley may be added.

Lima Bean Soup

Ingredients	Number of servings (servings are about \(\frac{3}{4} \) cup)					
	12	25	50	80	100	
MilkButter	3 pts	2½ qts ½ lb or ½ c	5 qts ½ lb or 1 c	8 qts 3 lb or 13 c	2½ gal 1 lb or 2 c	
Flour	⅓ c 1 tb ⅓ qt	i c 2 tb 1 qt	1 c 1 c 13 qts	1½ c 6 tb 2% qts	2 c 1 c 3½ qts	
Onion, grated Water, cold	or lb l 2 qts	or 1½ lbs ½ 3½ qts	or 3 lbs 1 7 qts	or 5 lbs 1 2 11 qts	or 6 lbs 2 3½ gal	

Soak beans overnight in cold water. Cook in same water slowly three or four hours or until tender. Rub through sieve. Make thin white sauce (see page 25). Combine with beans, salt, and onion, and bring to scalding point just before serving. If desired, add 1 teaspoon celery salt or 1 cup celery stock or 1 cup chopped parsley for 50 servings.

Rice Tomato Soup

	Number of servings (servings are about 3 cup)					
Ingredients	12	25	50	75	100	
Brown meat stock Tomato puree or sieved canned	1 qt	2 qts	1 gal	6 qts	2 gal	
tomato	1½ pts	1½ qts	3 qts 2	4½ qts 2	6 qts 3	
Water	1½ pts	1₂ qts	3 qts	4∄ qts	1½ gal	
RiceOnion	a C 1 tb	2 tb	2 c 1 small	1 medium	1 large	
Fat	1 tb	2 tb	4 tb	6 tb	₫ C	
Flour	13 tb	2½ tb	5 tb	75 tb	∦ C	
Celery salt	a t	1 t	ig tb ig tb	2 t 2 t	1 tb 1 tb	

Chop onion and boil in enough water to cover. When tender add to the tomato puree. Cook rice in the brown stock until soft. Combine mixtures, season, and thicken with flour which has been added to the melted butter. Heat and serve.

Corn	Cho	wder

	Number of servings (servings are about \$ cup)					
Ingredients	12 .	25	50	75	100	
MilkButter	2 qts	3½ qts ¾ c	7 qts \$ lb or 1½ c	10½ qts 2½ c	3½ gal 1½ lb	
Flour Salt Water, boiling Onions, chopped	½ c 2½ t 1 pt 1 small	1 c 1½ tb 1 qt 1 medium	2 c 3 tb 2 qts 4 lb or	3 c 4½ tb 3 qts	4 c 6 tb 1 gal	
Potatoes, diced	1 lb or	2 lbs	2 medium 2 qts or	1 lb 3 qts or	1 gal or	
Corn	2½ medium 2½ pts 3	2½ qts 4	4 lbs 5 qts 4 lb	5½ lbs 7½ qts ½ lb	7⅓ lbs 10 qts ⅓ lb	
Pepper	a t	1 t	i t	∄ t	1 t	

Cook celery leaves in boiling water 30 minutes. Strain. Add potatoes, onions, and corn to water. Cook 20 minutes or until tender. Make thin white sauce (see page 25). Combine mixtures and seasonings. Bring to scalding point just before serving:

Southern Bisque

	Number of servings (servings are about ⁸ / ₄ cup)					
Ingredients	12	25	50	75	100	
Carrots Onions Cloves, whole Bay-leaves Salt Sugar Water, boiling Milk Butter	3 pts 1 medium 1 medium 1 tb 1 tb 2 c 1 qt 2 c	5 pts 1 medium medium 1 2 tb 3 tb 3 c 2 qts \$\frac{1}{3} c \$	5 qts 1 lb 1 medium 1 1 c 6 tb 3 pts 3 1 qts 2 c	7½ qts 2 medium 1½ medium 2 2 6 tb ½ c 2½ qts 5½ qts 1 c	3 No. 10 cans or 10 qts 2 1b 3 lb 2 1 3 c 3 qts 7 qts 10 oz or	
Flour Water, cold Corn	i c i pt	1½ c 2 c 1 pt	3 c 3½ c 2 pts	4½ c 5½ c 3 pts	1½ c 6 c 7 c 3 No. 2 can or 4 pts	

Slice the carrots and onions. Add to the puree. Add the seasonings and hot water and cook until well seasoned. Strain. Mix the flour and cold water and add to the scalded milk. Cook over hot water 15 minutes. Add corn. Combine by stirring tomato mixture gradually into milk mixture. Serve immediately. Tomato bisque has a tendency to curdle if allowed to stand.

Cream of Potato Soup

Ground of Totales Body							
	Nun	Number of servings (servings are about 2 cup)					
Ingredients	12	25	50	80	100		
Milk Butter	2 qts 18 lb or 12 c	1 gal 4 lb or ½ c	2 gal ½ lb or 1 c	3 gal 12 oz or 1½ c	4 gal 1 lb or 2 c		
FlourPotatoes	i c li lbs or 4 medium	ī c 3 lbs	2 c 6 lbs	3 c 9 lbs	4 c 12 lbs		
Onions	1 lb or 2 medium	½ lb	1 lb	1½ Ibs	2 lbs		
Salt Water, boiling	1 tb 1 pt	2 tb 1 qt	1 c 2 qts	6 tb 3 qts	½ c 1 gal		

Cook potatoes and sliced onion in boiling water until soft. Put through a strainer without draining. Make a thin white sauce (see page 25). Add potato mixture to white sauce. Just before serving, add salt, and bring to the scalding point.

Clam Chowder

	Number of servings (servings are about 3 cup)					
Ingredients	12	25	50	75	100	
MilkButter	3 pts ½ c	3 qts	6 qts ½ lb or 1 c	9 qts ¾ lb or 1½ c	3 gal 1 lb	
Flour Salt Water, boiling Clams	1 tb 1 qt 2 pts	½ c 2 tb 2 qts 4 pts	1 c 4 c 1 gal 8 pts	1½ c 6 tb 6 qts 12 pts	2 c ½ c 2 gal 8 qts	
Potatoes, cubed rawSalt pork or bacon Onion, diced	1½ qts or 2 lbs 2 oz 1 c	2½ qts or 4 lbs 2 oz 1 pt	5 qts or 7 lbs 1 lb 11 pts	8 qts or 10½ lbs 6 oz 1 qt	10 qts or 14 lbs ½ lb 1½ qts	

Chop or mince the clams. Cut the potatoes into $\frac{1}{2}$ inch cubes. Cut the salt pork into $\frac{1}{4}$ -inch cubes and fry slowly with the onion until the onion is tender but not browned. Cook the diced potatoes, clams, pork, onions, and seasonings in the boiling water for 15 minutes or until potatoes are tender. Make a thin white sauce (see page 25). Combine the mixtures. Boil the clam liquor and add just before serving. Clam chowder has a tendency to curdle if allowed to stand.

Vegetable Chowder

	Number of servings (servings are about 3 cup)					
Ingredients	12	25	50	75	100	
Milk Flour Potatoes	2 qts ½ c 1 lb or	4 qts 1 c 2 lbs	8 qts 2 c 4 lbs	12 qts 3 c 6 lbs	4 gal 4 c 8 lbs	
Carrots	2½ medium 1 lb or 2 large	1½ lbs	3 lbs	5 Ibs	6 lbs	
Onions	1 lb or 6 medium	1½ lbs	3 lbs	5 Ibs	6 lbs	
Bacon or salt pork Salt Eggs, hard cooked (May be omitted)	½ lb 1½ tb 2 to 3	1 lb 2½ tb 4 to 6	2 lbs 5 tb 8 to 12	3 lbs 8 tb 12 to 18	4 lbs 10 tb 16 to 24	

Peel potatoes, carrots, and onions. Cut into large pieces, and cook in enough boiling water to keep from burning. Use half of the salt in cooking the vegetables and half in the milk. Heat the milk and thicken with the flour which has been mixed with a little cold water. As soon as the vegetables are tender, drain the water into the milk and chop the vegetables with a perforated can into ½-inch pieces. Cut bacon or salt pork into ½-inch pieces. Fry until brown and add with fat to milk. Mince eggs and add to milk. Combine vegetable and milk mixtures, bring to scalding point, and serve. If desired, dice half of onions and fry with bacon.

Other vegetables may be substituted for the carrots for variety.

Vegetable combinations for canned soups. Extension Bulletin 450, Home Food Preservation, gives directions for canning fruits, vegetables, meats, and fish. In canning a mixture of vegetables and meats, process the

period needed by the ingredient which, according to the time-table, requires the longest time. This bulletin on food preservation will be mailed to any school free of charge on request of the county extension agent or the Extension Service in Home Economics, Oregon State Agricultural College, Corvallis, Oregon.

The following recipes illustrate a number of vegetable combinations for canned soups.

1. 4 cups corn

8 carrots

2 green peppers

1 bunch celery

10 tomatoes teaspoon cloves

1 bay-leaf

1½ tablespoons salt

Grind or chop all vegetables. Precook all ingredients five minutes. Can and process.

2. 4 cups sliced tomato

1 cup sweet corn

1 cup sliced sweet pepper

1 sprig parsley (may be

omitted)

* teaspoon salt

Precook all ingredients five minutes. Remove parsley. Can and process.

3. 4 cups peeled chopped beets

6 cups diced tomatoes

1 tablespoon sugar

8 cups meat stock

(Hot water may be substituted)

Grind beets in food chopper. Combine ingredients and precook five minutes. Can and process using processing period for beef if meat stock is used.

4. 8 cups cut string beans

2 cups sliced carrots

1 cup diced celery

4 cups soaked or fresh lima beans

2½ cups diced tomato 1 tablespoon salt

Precook five minutes. Can and process.

5. 4 cups diced tomatoes

3 cups sliced potatoes

2 cups diced celery 6 cups sliced carrots 2 cups corn 1 tablespoon salt

Few sprigs parsley if desired

Precook five minutes. Can and process.

VEGETABLE DISHES

Bean Stew

	Number of servings (servings are from ½ to ¾ cup)				
Ingredients	12	25	50	75	100
Beans, navy	1½ lbs or 3 c	3 lbs	6 lbs	9 lbs	12 lbs
or ham bone	1 lb 21 t 1 c 1 t	lb liz tb c i t	12 lb 3 tb 24 c 13 t	 \$ lb 4½ tb 1½ c ¾ t 	1 lb 6 tb 1½ c 1 t

Soak the beans overnight. Drain. Add twice their volume of water and cook slowly with the meat and salt two hours or until done. Beans

should be soft but not broken and liquid should be creamy. Replenish water if necessary while cooking. Add butter and pepper before serving.

Savory Beets

	Number of servings (servings are from 1 to 2 cup)					
Ingredients	12	25	50	75	100	
Beets	4 lbs or 4 pt cans	8 lbs or 7 pt cans	15 lbs or 13 pt cans or 2 No. 10	23 lbs or 3 No. 10 cans	30 lbs or 4 No. 10 cans	
Butter	1 c 6 tb	13 C 24 C	cans 1 c 1½ c	1½ c 2½ c	2 c 3 c	
juice	1½ c 3 tb ½ c 1½ t	1½ pts 6 tb ½ c 1 tb	1½ qts 2 c 1 c 2 tb	21 qts 11 c 11 c 3 tb	3 qts 1½ c 2 c 1 c	

When using young beets, boil in skins until tender, plunge into cold water, remove skins, and dice with chopping can or knife.

When using old beets, peel them, run them through the food-chopper, and boil until tender.

Make a sauce of the butter, cornstarch, beet liquor, and vinegar, using the same method as for white sauce. Add sugar and salt to the sauce, pour over the beets and heat thoroughly before serving.

Creamed Cabbage

	Number of servings (servings are from ½ to ½ cup)						
Ingredients	12	25	50	75	100		
Cabbage Cream or rich	4 1bs	8 lbs	15 lbs	23 lbs	30 lbs		
milk Water, boiling Salt	2½ c 3 qts 1½ tb	4½ c 1 gal 2 tb	4½ pts 2 gal 4 tb	7 pts 3 gal 6 tb	4½ qts 4 gal 8 tb		

Slice or chop cabbage. Place in boiling salted water and cook rapidly without cover until tender, which takes from five to eight minutes at the boiling temperature. Drain. Add cream or milk, reheat, and serve immediately.

Scalloped Cabbage

	Number of servings (servings are from ½ to ¾ cup)					
Ingredients	12	25	50	75	100	
Cabbage	5 lbs 1 c 3 tb 1 pt	10 lbs 1 pt 6 tb	20 lbs 1 qt 2 c 2 qts	30 lbs 13 qts 1 c 3 qts	40 lbs 2 qts 1½ c 4 qts	

Make medium white sauce (see page 25).

Cabbage may be sliced or cut into eighths. Boil cabbage in a large quantity of boiling salted water without cover until nearly done (about eight minutes) and drain. Melt butter, add crumbs, and mix. Place half of buttered crumbs in bottom of baking-pan and then add a layer of boiled

cabbage. Cover with white sauce and sprinkle with rest of buttered crumbs. Bake in a moderate oven until well browned. Cheese may be added to the white sauce using $\frac{1}{2}$ lb. ground cheese to 25 servings.

Scalloped Onions

Use same proportions and methods as given for scalloped cabbage.

Buttered Carrots and Peas

	Number of servings (servings are from ½ to ½ cup)				
Ingredients	12	25	50	75	100
Carrots	3 lbs or 14 medium	5 lbs	10 lbs	15 lbs	20 lbs
Peas Butter Salt	3 pt cans 4 tb 2 t	5 pt cans ½ lb 4 t	9 pt cans ½ lb 6 t	14 pt cans 14 lb 3 tb	18 pt cans 1 lb 2 c

Peel carrots, cut lengthwise and cook in as small an amount of boiling salted water as is possible without burning. Boil peas 15 minutes in their own juice and drain. When carrots are tender, drain and dice with chopping can. Add peas, butter, and salt to taste.

Carrots may be combined in the same proportions with cooked celery and creamed.

Mashed Potatoes

Indiana I diates						
Ingredients	Number of servings (servings are from ½ to ¾ cup)					
	12	25	50	75	100	
Potatoes	4 lbs or 10 medium (be- fore peeling)	8 lbs	15 lbs	23 lbs	30 lbs or ½ bushel	
Hot milk Butter Salt	1 c 3 tb 2 t	1 pt dic 1d tb	1 qt 1 lb 3 tb	1½ qts ½ lb 4 tb	2 qts 1 lb 1 c	

Peel the potatoes, removing blemishes. If desired, wash in salt water to avoid discoloring, but avoid allowing to stand in water. Place in boiling water and cook until tender, about 30 minutes or less. Mash. Add hot milk, salt, and butter. Beat until light and fluffy. If potatoes have to stand any length of time, they may be rewhipped by adding a little hot milk or hot water and beating.

Scalloped Potatoes

	Num	ber of servings	(servings are	from ½ to ¾ cup)
Ingredients	12	25	50	75	100
Potatoes, sliced Thin white sauce Salt Crumbs Butter	2 qts 1½ pts 1 tb ½ c 2 tb	1 gal 3 pts 2 tb 1 c 2 tb	2 gals 3 qts 4 c 1 c 4 c	3 gal 11 gal 6 tb 11 c 6 tb	4 gal 1½ gal ½ c 2 c ½ c

Make thin white sauce (see page 25). Add the additional salt to the white sauce. Grease baking dishes, preferably covered casseroles. Steam potatoes for 15 minutes if equipment is available. Place potatoes and white sauce in alternate layers in baking dishes. Cover the top with buttered crumbs. Bake in moderate oven until potatoes are well done. Remove cover to brown the top.

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	Number of servings (servings are from ½ to ¾ cup)					
Ingredients	12	25	50	75	100	
Canned corn Lima beans, dry Salt Butter Pepper	1 qt 1 pt 2 t 1 c 1 t	2 qts 1 qt 1½ tb ½ c 1 t	4 qts 2 qts 3 tb 1 c	6 qts 3 qts 41 tb 11 c	8 qts 4 qts 6 tb 2 c 1 t	

Soak the beans overnight. Boil until tender and drain. Boil the corn 10 minutes, add the beans and seasonings, and boil 5 minutes longer.

Fresh lima beans or green shelled beans may be substituted in the proportion of 4 quarts to 50 servings.

If a baked dish is desired, place strips of bacon on top and bake in moderate oven 45 minutes or until top is browned.

Scalloped Tomatoes

	Number of servings (servings are from ½ to ¾ cup)					
Ingredients	12	25	50	75	100	
Tomatoes, solid pack Melted butter	3 pts	3 qts 1 c 1½ tb 3 pts ½ c	6 qts 2 c 3 tb 3 qts 1 c	9 qts 3 c 4½ tb 4½ qts 1½ c	12 qts 4 c 6 tb 6 qts 2 c	

Mix the crumbs with the melted butter. Place a layer of buttered crumbs in bottom of baking-dish. Mix seasonings with the tomatoes and turn into the pan. Cover with the remaining crumbs. Bake about one-half hour in a moderate oven.

Macaroni and Tomato

1	Number of servings (servings are from ½ to ½ cup)					
Ingredients	12	25	50	75	100	
Macaroni broken into 2-inch lengths	1½ pts	1½ qts	3 qts or	4 <u>1</u> qts	6 ats	
Tomato, strained Bacon fat or	1 qt	2 qts	2g lbs 4 qts	6 qts	8 qts	
butter Flour Salt Water, boiling Onion, chopped	½ c 6 tb 2 tb 2 qts ½ medium	g c g c 4 tb 1 gal g medium	1½ c 1½ c ½ c 2 gal 1 medium	2½ c 2½ c ¾ c 3 gal 1½ inedium	3 c 3 c 1 c 4 gal 2 medium	

Break the macaroni into 2 inch lengths or use elbow macaroni. Add two-thirds of the salt to the boiling water and cook the macaroni until well swelled and tender. Drain. Place in colander and let cold water run through it to separate the pieces. Cook the onion in the fat until tender. Make a sauce of the fat, onion, flour, tomato, and the rest of the salt, using the same method as for white sauce. Add sauce to macaroni in alternate layers, and serve; or bake in moderate oven until top is browned and then serve.

If the dish is to be baked, ground cheese may be added in alternate layers, using one-half the amounts of cheese given under Macaroni and Cheese.

For 50 servings, 2 quarts of chopped ham may be added; if desired 1 teaspoon of peppercorns and 1 bay-leaf may be boiled with the tomato 20 minutes and strained out. Meat stock may be substituted for one-half of the tomato.

CHEESE, EGG, MEAT, AND FISH DISHES

Macaroni and Cheese

	Number of servings (servings are from ½ to ¾ cup)					
Ingredients	12	25	50	75	100	
Macaroni, broken into 2-inch lengths Water, boiling Salt Cheese ground Bread crumbs Butter Medium white	1 qt or 1 lb 2 qts 1 tb 2 lb 3 c 2 t	2 qts 1 gal 2 tb 1 lb 2 c 1 tb	4 qts or 4 lbs 2 gals ½ c 2 lbs 1 c 2 tb	6 qts 3 gal 6 tb 3 lbs 1½ c 3 tb	8 qts or 8 lbs 4 gal ½ c 4 lbs 2 c ½ c	
sauce	3 pts	3 qts	1½ gal	2¼ gal	3 gals	

Break the macaroni into 2 inch lengths or use elbow macaroni. Add the salt to the boiling water. Add macaroni and cook until well swelled and tender. Drain. Place in colander and let cold water run through it to separate the pieces. Make a medium white sauce and add to it the ground cheese. Stir until the cheese is melted. Place macaroni and cheese sauce in alternate layers in greased baking-pans. Melt butter and stir in crumbs. Cover macaroni with buttered crumbs and bake in moderate oven until top is browned (about ½ hour).

Potato Omelet

	Number of servings (servings are from ½ to ½ cup)					
Ingredients	12	25	50	75	100	
Diced cooked potatoes Eggs Salt Pepper: preferably	3 pts	3 qts	6 qts	9 qts	12 qts	
	9	1½ doz	3 doz	4½ doz	6 doz	
	2 t	1½ tb	3 tb	4 tb	1 c	
white	12	½ t	½ t	\$ t	1 t	
Slices of bacon	12	25	50	75	100	
Hot milk	3 c	3 Pts	3 qts	4½ qts	6 qts	

Arrange the bacon strips close together in meat pans and bake in the oven until crisp. Remove from pans and keep warm. Dice cold boiled or steamed potatoes into ½ inch pieces and turn into the hot bacon fat. Fry until slightly browned. Beat the eggs until light. Add the seasonings and milk. Pour this mixture over the potatoes and bake in a moderate oven until the egg is set as for baked custard, about 30 to 40 minutes. Remove from oven, lay the slices of crisp bacon on top. Serve at once. To economize, ½-size slices of bacon may be used.

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Wheat	Or.	Rica	()m	elet
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	Num	ber of servings	(servings are	from ½ to ½ c	սթ)
Ingredients	12	25	50	75	100
Cooked rice or wheat	3 c 3 c 2 c 2 t	3 pts 3 pts ½ c 1 tb 1% doz	3 qts 3 qts 3 c 13 tb 3 doz	4½ qts 4½ qts 1½ c 2½ tb 4½ doz	6 qts 6 qts 1½ c 3½ tb 6 doz

Add the melted butter, seasonings, and milk to the cooked rice. Separate yolks and whites of eggs and beat well. Stir the yolks into the rice mixture, then fold in the whites. Bake in a slow oven until the omelet is well puffed, a golden brown in color, and set (45 to 60 minutes). Serve at once.

Meat Stew with Vegetables

	Number of servings (servings are from ½ to ¾ cup)					
Ingredients	12	25	50	75	100	
Lamb, beef or veal (weight exclusive of bone) Carrots, diced Turnips, diced Celery, diced Onions, sliced Butter (may be omitted) Flour Salt Cloves (may be omitted) Bay-leaves (May be omitted)	11 lbs 1 pt 1 pt 1 pt 1 c 1 c 1 c 2 t 2 t	3 lbs 1 qt 1 qt 1 qc 2 c 1 c 1 c 1 t 4 t	6 lbs 2 qts 2 qts 2 qts 1 c 1 c 2 c 3 tb \$\frac{3}{2}\$ t \$\frac{3}{2}\$ t \$\frac{3}{2}\$ t	9 lbs 3 qts 3 qts 3 qts 2 c 11 c 3 c 4 tb 1 t 12 t 6	12 lbs 4 qts 4 qts 4 qts 4 qts 3 c 2 c 4 c 1 c 1 c 1 c 8	

Cut meat into as many pieces as servings. Cook slowly in boiling water until tender. About one-half hour before the meat is done, add cut vegetables and salt. Just before serving, thicken stew and add butter. One-half tablespoon of paprika for 50 servings may be added if desired. Other vegetables may be substituted for those given, such as peas, string beans, potatoes, etc.

Corned Beef Hash

	Number of servings (servings are from ½ to ¾ cup)					
Ingredients	12	25	50	75	100	
Mashed potatoes Corned beef, chopped	2 qts or 4 lbs raw	4 qts or 8 lbs raw 2 qts	8 qts or 16 lbs raw 4 qts	12 qts or 24 lbs raw 6 qts	16 qts or 32 lbs raw 8 qts	

Mix finely chopped boiled corned beef and mashed potatoes thoroughly. Include part of the fat as it improves the flavor of the hash. Moisten with stock in which the meat was cooked and season to taste with salt.

Cook in beef drippings or other fat in frying-pans on top of stove for about half an hour or in oven for about an hour.

Creamed a	and	Scalloped	Fish
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Ingredients	Number of servings (servings are from ½ to ½ cup)					
	12	25	50	75	100	
Milk	3 c	3 pts	3 qts 2	4½ qts 3	6 qts 4	
Parsley, chopped. (May be omitted)	2 . t	1 tb	2 tb	3 tb	½ c	
Onion, chopped Salt Butter Flour Cold flaked fish Bread crumbs	c t c c tb 1 qt c	1 c 3 t 2 c 2 c 2 qts 1½ c	1 c 1 kb 1 c 1 kc 1 kc 4 qts 1 kg pts	21 c 21 c 21 c 6 qts 41 c	3 tb 3 c 3 c 3 c 8 qts 1½ qts	

Scald the parsley, onion, and bay-leaves in the milk until delicately flavored. Strain. Make medium white sauce of the butter, flour, and milk, following directions given on page 25. Boil or steam the fish 15 minutes and drain. If creamed fish is desired, add the fish and salt to the white sauce and bring to the scalding point just before serving, omitting bread crumbs.

If scalloped fish is desired, place the fish, bread crumbs, and white sauce in alternate layers in greased baking-dishes, cover with buttered crumbs, and bake in a hot oven until heated through and browned.

Salmon Loaf

Ingredients	Number of servings (servings are from ½ to ¾ cup)					
	12	25	50	75	100	
Salmon	3 c 1 pt	3 pts 1 qt	6 No. 1 cans 3 qts 2 qts	4½ qts 3 qts	12 No. 1 cans 6 qts 4 qts	
Cooked	1½ c 3 ½ t ½ tb	3 c 5 2 t 11 tb	3 pts 10 1½ t 2½ tb	2½ pts 15 2½ t ½ c	3 qts 21 1 tb 1 c	

Cut celery fine and boil or steam in a small quantity of water until tender. Beat eggs. Mix ingredients, pour into greased baking-dishes, and bake in moderate oven about 45 minutes until knife inserted in center shows no liquid. Heating the milk shortens time of baking.

Scrambled Eggs

Ingredients	Number of servings (servings are from ½ to ¾ cup)					
	12	25	50	75	100	
Eggs (1 egg per person) Milk Salt Paprika	1 doz 3 c 1½ t	25 3 pts 1 tb	50 3 qts 2 tb ½ t	75 4½ qts 3 tb ½ t	100 6 qts 4 c 4 t	

Beat the eggs until light. Scald the milk and add to eggs. Add seasonings and stir well. Cook without stirring in double boilers until the mixture begins to thicken. Loosen the egg from the sides and bottom, which cook first, and continue cooking until the egg is jelly-like in consistency.

A variation is to add bits of fried diced bacon, ham, left-over meat or vegetables to the egg mixture before cooking.

CEREAL DISHES

Creole Rice

Ingredients	Number of servings (servings are from ½ to ¾ cup)					
	12	25	50	75	100	
Rice	∄ lb or 1∄ c	1½ lbs	3 lbs or 6% c	4½ lbs	6 lbs	
Strained tomato Ham or bacon	a qt	1½ qts	3 qts	4½ qts	6 qts	
drippings Sliced onion Salt Paprika Green peppers	1 c 1 c 2 t 1 t 1 small	l pt l pt l tb l t l small	1 qt 1 tb 1 t 2 small	1½ c 1½ qts 1½ tb 1½ t 3 small	$ \begin{array}{c} 1\frac{1}{2} \text{ c} \\ 2 \text{ qts} \\ 2 \text{ tb} \\ 2 \text{ t} \\ 4 \text{ small} \end{array} $	
(May be omitted) Pimiento(May be omitted)	ž	1 2	1	11	2	

Wash the rice several times. Boil it in a large quantity of boiling water until tender. Drain. Slice the onion and chop the peppers and pimiento. Cook them slowly in the fat until tender, being careful not to scorch. Add the onion, salt, and paprika to the tomato and combine with the hot rice. Pour into greased baking-dishes and bake in a hot oven for about 30 minutes. Cooked wheat, whole or cracked, and cooked wheat hominy may be substituted for the rice.

Boiled Rice with Fruit

Ingredients	Number of servings (servings are from ½ to ¾ cup)				
	12	25	50	75	100
Rice	2 c 3 pts 1 t 1 c 1 c 1 c	3½ c 3 qts ½ tb 1 c 2 t 1 pt	7 c 5½ qts 1 tb 2 c 1 tb 1 qt	2½ qts 2 gal 1½ tb 3 c 1½ tb 1½ qts	31 qts 22 gal 2 tb 4 c 2 tb 2 qts

Wash rice several times to remove loose starch.

Heat milk in double boiler. Add rice and salt and cook until tender, about 30 minutes. When almost done, add sugar and fruit. Do not cover. After removing from stove add vanilla. Serve with milk and sugar if desired. Cooked wheat, whole or cracked, and cooked wheat hominy may be substituted for the rice.

Whole Wheat

	Num	ber of serving	s (servings are	from ½ to ¾ cu	ıp)
Ingredients	12	25	50	75	100
Wheat Boiling water Salt	1 qt 2 qts 1 tb	2 qts 4 qts 2 tb	3½ qts 7 qts 4 tb	5½ qts 11 qts 6 tb	7 qts 3½ gal 8 tb

Clean wheat by washing several times and picking out impurities. Boil the wheat the night before for 5 minutes, using twice as much boiling water as wheat and adding salt. Surround pan with hot water and let stand overnight. Heat may be retained by use of fireless cooker, wrapping in paper, or placing in oven. The next morning add as much milk or water as dry wheat and cook in double boiler until tender, which requires about one hour. Diced dried fruit may be added the last half hour of cooking, using 2 quarts to 50 servings. Chopped nuts may also be added, 2 cups to 50 servings. Wheat may be run through food-chopper after soaking.

Serve with milk and sugar, butter, cream, cheese sauce, or sirup. In a large variety of dishes cooked wheat may be used in place of rice, rolled oats, or macaroni.

Cocoa

	Number of servings (servings are from ½ to ¾ cup)					
Ingredients	12	25	50	75	100	
Milk	2 qts 1 c 1 c	7 pts 1 pt ½ c	7 qts 1 qt 1 lb or	10½ qts 3 pts 1½ c	3½ gal 2 qts ½ lb or	
Sugar	i c i	å c	1 c 1 c	1½ c	2 c 2 c	

Mix the sugar and cocoa together, add the hot water, and boil five minutes. Heat the milk in a double boiler. Add the cocoa mixture. Beat in scum with egg beater before serving. The cocoa mixture may be kept for some time and milk added to part of it as needed.

FLAVORED MILK DRINKS

Every child should learn to drink whole milk without dissatisfaction. For variety rather than to accept the dislike of milk, however, the occasional use of milk drinks is desirable if the expense is justified.

Milk shakes should be made in clean jars, preferably by the children themselves. After placing ingredients in the jar, cover, and shake well. Place the jars in a pan of cold water or other cool place in order to serve milk drinks as cold as possible. Use whole milk if it is available; if not, reconstituted powdered milk may be used. To reconstitute dry skim milk, measure 1 cup of cold water into a bowl, add $4\frac{1}{2}$ tablespoons of powdered milk and beat with egg beater, fork or spoon.

1. Caramel milk shake

1 pint milk
2 or more tablespoons caramel flavoring

Few grains salt 1 teaspoon sugar

Caramel flavoring or sirup

Heat ½ cup sugar in a frying-pan to the bubbling point. Stir to prevent burning. The melted sugar should be a light brown color but not burned.

Add \(\frac{3}{4} \) cup of water and boil five minutes without stirring. The caramelized sugar should then be stirred until it has dissolved. A supply of caramel and chocolate sirup may well be made for use from time to time.

2. Chocolate milk shake

1 pint milk

2 tablespoons chocolate sirup

2 teaspoons sugar

1 teaspoon vanilla

Few grains salt

Chocolate sirub

Boil 1½ tablespoons cocoa, 2 tablespoons sugar, and ½ cup water for five minutes. Cool.

3. Banana milk shake

1 pint milk

1 teaspoon banana flavoring or

1 ripe banana pressed through a sieve

1 tablespoon sugar Few grains salt

4. Maple milk shake

1 pint milk

3 drops maple flavoring

2 teaspoons sugar Few grains salt

5. Fruit milk shake

1 pint milk

6 tablespoons canned strawberry juice or other canned fruit juice

2 teaspoons sugar Few grains salt

6. Vanilla milk shake

1 pint milk

1 tablespoon sugar 1 teaspoon vanilla Few grains salt

Pineapple, lemon, orange and other flavorings may be substituted for vanilla.

7. Egg nog

1 tablespoon sugar 1 teaspoon vanilla

1 pint milk Few grains salt

Beat egg. Add other ingredients and stir well.

8. Milk shakes made from commercial preparations

Many brands of milk-drink preparations are on sale at grocery and drug stores. Follow directions on can or box; frequently more milk is needed than directions advise.

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