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The University of Minnesota

AGRICULTURAL EXTENSION DIVISION

Special Bulletin No. 3

University Farm, St. Paul

UNIVERSITY OF MINNESOTA
DOCUMENTS
OCT 4 1982
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December 1915

Published by the University of Minnesota, College of Agriculture, Extension Division, A. D. Wilson, Director, and distributed in furtherance of the purposes of the cooperative agricultural extension work provided for in the Act of Congress of May 8, 1914.

MINNESOTA BOYS' AND GIRLS' CLUBS

* T. A. Erickson, State Leader, and Mrs. Margaret B. Baker, Assistant

THE BREAD-MAKING CONTEST

Nearly seven hundred regularly organized junior clubs were reported in the state during 1915, each having definite plans of work. The purpose of junior extension work is to develop efficiency in the individual and to encourage team work as much as possible. A junior club is a splendid help to a senior organization in either town or country. It may also be one of the strongest agencies in making a successful school. It should be the force which makes the school the center of the community. It will make the work done in home economics and agriculture more effective, and by connecting the home work with the school activities will make these of more educational value.

In 1915, twenty-five hundred girls took part in the bread-making project. The best work was done where the girls were organized into clubs.

Teachers are urged to organize clubs for special work, with officers and a suitable constitution. A suggested form is given in this bulletin. It is also advisable to select a club motto. "To make the Best Better" is the state club motto and is very good. A club pin helps create interest. Plan general club activities as a part of the school work, but let the members select some of the state club projects as definite work. The state club projects are: Bread-making, garment-making, gardening and canning, acre yield corn contest, potato-growing contest, pig-growing contest.

Constitution

Article I. Name.—The name of this organization shall be
Boys' and Girls' Club.

Article II. Object.—The object of this club shall be to improve ourselves, our school, our homes, and our community.

Article III. Membership.—Any boy or girl in this district between the ages of 10 and 18 years may become a member of this club by signing the constitution.

* Joint Agents, States Relations Service. U. S. Dept. of Agr. and Agr. Ext. Div., Univ. of Minn.

Article IV. Officers.—The officers of this club shall consist of a president, vice-president, secretary, and treasurer, who shall perform the usual duties of such officers.

Article V. Meetings.—The regular meetings of this club shall be held at the schoolhouse the last Friday of each month during the school term unless otherwise voted.

Article VI. Amendments.—This constitution may be amended at any regular meeting by a two-thirds vote cast.

By-Laws

Section 1.—The club motto shall be "To make the BEST, BETTER."

Sec. 2.—The officers of the club shall be elected by ballot at the first regular meeting of each school term, and shall hold office until their successors have been elected and qualified.

Sec. 3.—The following order of business shall be followed at regular club meetings:

- Roll call by secretary
- Reading of minutes of previous meeting
- Reports of committees
- Program
- Adjournment.



Fig. 1. Lake City Bread-Making Club

THE BREAD-MAKING CONTEST

Josephine T. Berry

Division of Home Economics

Margaret B. Baker

In Charge of Bread-Making Contest

A state bread-making contest, under the auspices of the Agricultural Extension Division and of the county or community educational forces, will be continued as a club project for girls during 1916. The state contest will include local contests, a county contest in each county, and a bread-making demonstration contest at the State Fair, September 4 to 9, 1916. The local contests will be conducted by schools or by neighborhood groups, the winner in each school or group to compete in the county contest. The county contests will be conducted by the county superintendent, county agent, or a local leader approved by the Agricultural Extension Division. The winners in the county contests will represent the counties in the final trial at the State Fair. The demonstration contest at the fair will be under the direction of the department of Home Economics of the College of Agriculture.

Who May Enter the Contest

Any girl in the state who is over ten years of age and under eighteen on July 1, 1916, may enter the contest in Class A or Class B, subject to the conditions of the contest.

Class A is composed of girls who are having or have had instruction in domestic science in schools maintaining a special instructor in that subject.

Class B is composed of girls who have not had special instruction in domestic science.

Conditions of the Contest

1. **Enrollment.**—Each contestant must enroll with the Junior Department of the Agricultural Extension Division and must sign the agreement stated on the enrollment card.

ENROLLMENT CARD

Form..... (State) (County)

Date.....191.....

I hereby make application for membership in the Girls' Club, and if admitted I shall endeavor to follow all instructions, attend meetings, and take part in the contest. I will keep an accurate account of my work, and will send in reports promptly, as requested in the instructions.

(Signed).....

Age..... P. O. Address..... R. D.....

College of Agriculture of the University of Minnesota, and the States Relations Service, U. S. Department of Agriculture, cooperating

(1) Enrollment cards may be obtained from the county superintendent, the teacher, or the county agent, or from the Agricultural Extension Division, University Farm, St. Paul, Minn.

(2) Enrollment cards, when signed, must be mailed to the Agricultural Extension Division, University Farm, St. Paul, Minn.

2. **Instructions.**—Upon receipt of the enrollment card, the division will send to the new club member a copy of the bread contest bulletin, including instruction

in bread-making and the rules of the contest, together with blanks for the home report and the story.

3. Time limit.—

(1) Enrollment will close June 1, 1916.

(2) Reports of six bakings and the story must be in the hands of the committee in charge of the county contest before the contestant takes part in the county contest.

(3) County contests in both Class A and Class B should be held not later than July 1, 1916.

(4) The name and the score of the winner in the county contest, together with the home reports and the story, will be forwarded by the committee in charge of the county contest to the Agricultural Extension Division at the close of the county contest.

Requirements

The work in each county will be under the direct supervision of the county superintendent of schools. If this officer is unable to act, some one else will be appointed by the Extension Division to take charge of the work.

1. The local contest.—The local contest will consist of the baking of bread not less than six times, either at home or at school, together with a report of each baking, made out on the Home Report blank supplied by the Agricultural Extension Division, and a story: "How I Learned to Make My Loaf of Bread."

Class A: The work in this class will be carried on under the supervision of the instructor in domestic science of the local consolidated or high school. The bread-making may be done in the school laboratory or in the home; and the representative of the school to the county contest may be chosen in a local contest, or in any manner which the instructor supervising the work may determine, providing the contestant chosen has fulfilled the requirements as to baking and reports, and the story.



Fig. 2. Hutchinson Bread-Making Club

Class B: The work in Class B may be carried on by clubs organized in schools having no domestic science department, or by neighborhood groups. Each club should consist of five or more members, have the usual officers, and hold meetings at stated intervals. The secretary of the club should report the names of members and of officers to the Agricultural Extension Division and to the county superintendent, or the person in charge of the county contest.

The bread-making may be done in the school if there is equipment, or in a home. It must, however, be done under the supervision of the teacher or of a woman capable of judging of the quality of the bread. The bread will be judged according to the score card in this bulletin.

Each local club will be entitled to one representative in the county contest for Class B. This representative may be chosen in such manner as the local club may determine, from members having fulfilled the requirements as to the number of bakings, the reports, and the story.



Fig. 3. Rothsay Girls' Club

The story.—Each contestant in either class must write an account of her work, entitled, "How I Learned to Make My Loaf of Bread." The story should consist of not more than five hundred words. It must be written with ink and plainly marked with name, town, and county.

2. **The county contest.**—The county contest in each county shall be held at such time and place as the county superintendent or the person in charge of the contest shall determine, previous to July 1, 1916. This contest must be held under approved supervision and must be open to the public.

The contestants shall be: **Class A**, one qualified representative from each school having taken up the bread-making project; **Class B**, one qualified representative from each club having taken up the bread-making project. Each contestant must bake one or more loaves of bread, under supervision. The bread will be scored by the score card in this bulletin. The work of each contestant in the demonstration will be judged according to the report blank, also printed in this bulletin. In the final score the public demonstration shall count 80 per cent, and the story, "How I Learned to Make My Loaf of Bread," 20 per cent.

3. **The state contest.**—The final demonstration contest will be conducted at the State Fair, under the supervision of the Division of Home Economics of the College of Agriculture. The winners in Class A and in Class B of the county contests will be divided into groups, each group to participate in the demonstration on one day of the fair. One or more contestants will begin the making of bread each hour from 8 a. m. until 2 p. m. The bread will be made by the quick process and according to the instructions given in this bulletin. A standard flour will be furnished. Any contestant who wishes to use a special brand of flour may do so at her own expense.

Honors and Prizes

Every girl who has sent in her reports, and who has made a high record under the rules of the local contest, will have her name placed on the **Club Honor Roll**, and will receive a **Diploma of Merit**.

THE UNIVERSITY OF MINNESOTA Department of Agriculture

Boys' and Girls' Club

191.....

This is to Certify that.....
is a member of the Honor Roll of the Minnesota Boys' and Girls' Club, by virtue of having taken high rank in the Minnesota Bread Making Contest of 191....., and having shown ability in the performance of home work.

Given under our hands this.....day of....., 191.....

.....
State Leader Boys' and Girls' Club

.....
Director of Agricultural Extension

.....
Dean

The girl making the highest score in the local contest will have the honor of representing her club or school in the county contest.

The board of managers of the State Fair offer, as a prize to the winner in each class in the county contest, round-trip railway fare from her home to St. Paul or Minneapolis at the time of the fair.

Two \$100 Scholarships

Hunt's Perfect Baking Powder Company, of Minneapolis, has offered a \$100 scholarship in the Minnesota School of Agriculture at either St. Paul, Crookston, or Morris, to the girl winning first place in Class B in the state contest.

A \$100 scholarship in the Minnesota College of Agriculture at St. Paul, or the School of Agriculture at either St. Paul, Crookston, or Morris, will be given to the girl winning first place in Class A in the state contest.



Fig. 4. Sauk Rapids Club, Class A



Fig. 5. Margaret Lofgren, Ulen, Champion 1914 in Class B



Fig. 6. Alice Sanders, Marine Mills, Champion 1915 in Class B

The Prize Winners of 1914 and 1915

THE GIRLS' CAMP

The girls representing their counties in the state bread-making contest will make the Woman's Hall of the School of Agriculture, University Farm, headquarters and home for the week of the fair. A girls' camp will be conducted there, under the supervision of Mrs. Margaret B. Baker and her assistants. This will afford the girls an opportunity to become acquainted and give them a taste of dormitory life. This building is within easy walking distance of the fair grounds.

RECORD OF GIRLS' HOME WORK IN BREAD-MAKING

Name.....
 Age..... Address.....
 County..... Class "A" or "B".....
 Are you a member of a club?.....
 Date of baking.....
 Time required for mixing.....
 Time required for first kneading.....
 Time required for first rising.....
 Time required for second kneading.....
 Time required for second rising.....
 Time required for baking.....
 Time required for entire process.....
 Number of loaves baked.....
 Quality of bread as judged by score card.....

REPORT OF GIRLS' PUBLIC DEMONSTRATION IN BREAD-MAKING

Name.....
 Age..... Address P. O.....
 County..... Class "A" or "B".....

Judged on following points

	Points	Points
Accuracy	20.....	
Dispatch	20.....	
Neatness	20.....	
Final Results	40.....	
Total	100.....	

I hereby certify that I witnessed the demonstration and the above report is correct.

Signed by.....

In Charge

Address.....
 (P. O.) State

BREAD

"Bread is the staff of life." The statement is very old, but none the less true. All the nations of the earth use some form of bread as a staple food. Bread and butter make almost a perfect food.

The Essential Factors

Flour, yeast, and liquid are essential factors in bread. Salt and sugar add flavor, shortening changes the quality of the crumb, but a loaf of bread could be made without them.

Flour.—Wheat flour contains starch and a substance called gluten. This gluten is elastic when moistened and can be stretched. When children chew wheat until only the gluten is left they call it wheat gum. When the bread dough is light, it is full of gas bubbles, which stretch the gluten, and when baked the gluten is stiffened, leaving the bread filled with small holes or pores. Wheat is the only grain which contains the gluten and we add wheat flour when we make rye bread, that the bread may be light.

Yeast.—Yeast is a mass of very tiny plants, or cells, which, like any other plant, require food, moisture, and warmth, if they are to grow. For food the yeast plant uses sugar, or starch which it changes to sugar. In growing, it produces the gas (carbon dioxide gas) that is formed when water or milk is added to baking powder. It is this gas which makes the bread rise.

Masses of these tiny yeast cells, or plants, may be obtained in three different forms for use in bread-making. The usual forms on the market are compressed

yeast and dry yeast. Liquid yeast can be secured at some bake shops, and many women prepare it in their own homes.

Compressed Yeast is the name given to yeast prepared in a special way, washed and pressed into small cakes, usually with corn-starch to hold it in shape. The yeast plants in these cakes are very active, and grow rapidly when put into bread dough. These cakes do not keep long, as there is moisture and food present, and the yeast plants, together with the bacteria that may get into the cakes, soon begin to grow, but if kept away from the air (wrapped in tinfoil), in a cool place, they may be kept several days or a week. They will keep 24 hours under most conditions, and therefore may be obtained by mail almost anywhere.

Dry Yeast also comes in cakes, but the cakes are made up with corn meal or some other fine cereal and are very dry. Since yeast plants require moisture for growth, the little plants in the dry yeast cake are not active and ready to grow. Before they can be put into a bread dough they must have conditions favorable for growth—they must become active and increase in numbers. Therefore bread made with dry yeast must begin with a bread sponge—a batter of flour and water, with a little sugar, to which the yeast is added. When the sponge is light, that is, when the yeast plants have grown, forming many new cells or plants, and also forming the gas which produces the bubbles in the sponge, the sponge may be made into a dough, and the bread-making may proceed as though it had been begun with compressed yeast.

Liquid Yeast, or home-made yeast, is usually a mixture of flour, water, and potatoes, with dry yeast as a starter. A portion of this sponge when light is kept from one baking-time to the next. Then fresh food materials are added. When light, the bread is made from a portion of the fresh sponge and the remainder is kept over for the next baking. Bread can be made in less time from this yeast than from the dry yeast because the yeast plants are in a more active condition in the liquid than in the cornmeal cakes. Bacteria soon become very numerous in such yeast and often play havoc with the bread, causing it to smell and to taste sour. Yeast in this form is often spoken of as a "starter."

Liquids.—Milk, water, potato-water, and buttermilk are the liquids commonly used. Milk and water seem to give equally good results, the milk giving a crust that is perhaps a little more easily browned. Potato-water obtained from good white potatoes and not dark in color is a good liquid. Clear warm water to which the mashed potatoes are added is, however, just as good and usually of a better color. Buttermilk sometimes leaves an unpleasant flavor in the bread.

Sugar, Salt, Shortening.—Sugar serves as food for the yeast plant, and therefore hastens the rising process. It also deepens the color of the crust. Two level teaspoonfuls to a loaf give good results.

Salt is used for flavor. One level teaspoonful to a loaf is a desirable proportion.

Shortening, or fat, is added only for the purpose of making the bread a little more tender. One or two teaspoonfuls to a loaf may be used.

BREAD-MAKING

The best results in bread-making demand the best materials and care, and above all, regard for the correct temperature, as yeast plants grow well at from 75° to 95° F., or warm room temperature, but are killed by temperatures of 110° or more. They grow more rapidly as the temperature rises, up to 95° F. Therefore the best temperature, because it shortens the whole process, is from 90° to 95° F. These

facts explain why it is desirable to keep the bread warm but not too warm, and why bread kept warm rises more rapidly and thus shortens the bread-making process. They also explain why a thermometer should be used, and why better results are often obtained in summer when the air is naturally about the right temperature.

The Short Process

Bread may be made by the short process in from 4 to 6 hours. Compressed yeast must be used in this case as the bread is to be hurried as fast as possible, and time cannot be taken to start the dry yeast in a soft batter.

Proportions for 1 Loaf

Milk, $\frac{1}{2}$ c.	Salt, 1 tsp.
Water, $\frac{1}{2}$ c.	Sugar, 2 tsps.
Flour, $3\frac{1}{2}$ c.	Fat, 1 tsp.
Compressed yeast, $\frac{1}{2}$ cake	

Scald the milk, and cool to 95° F. Heat the water to 95° F. Pour one-fourth of the liquid (95° F.) over the yeast cake to soften it and the remainder over the salt, sugar, and butter, in a mixing bowl or pan. If a heavy earthen mixing bowl is used, warm it first with hot water until heated through, that it may not chill the bread. Then add the yeast and enough flour, mixing thoroughly, to make a dough that can be handled on the mixing-board. Knead until the dough is elastic and does not stick to the board or hands. With a little practice, this can be done in five minutes.

The object of this first kneading is (1) to mix the ingredients thoroughly, and (2) to bring the sticky substance in the flour, known as gluten, into a smooth, elastic condition and distribute it evenly throughout the dough. Just as soon as this condition is obtained additional kneading is of no use, except possibly to whiten the bread, and is an expenditure of time and energy which can well be saved.

Place in a well-oiled bowl or pan and set the pan in warm (100° F.) water. It is, of course, very desirable to use a thermometer, and a good one can be purchased for \$1, but if one does not have it, the water can be kept a little more than lukewarm, and tested by the hand. Water just comfortably warm for washing the hands or dishes is about 100° F. It may be kept warm by adding a little hot water frequently, or by standing the bowl in its water bath, on the radiator or reservoir, providing these are not too hot. Warm water is more satisfactory than a warm place because an even temperature is more easily secured. Cover with a clean towel.

Allow the bread to rise until doubled in bulk. When light, turn onto the board, knead lightly, and form into a loaf. Very little, if any, flour should be required at this stage. The second kneading is for the purpose of evenly distributing the gas throughout the mass, and getting the dough into shape for the pan. Three to five minutes of deft, light working should accomplish this.

Place the loaf in an oiled pan, 3x4x8 inches, or equivalent, in size. If the pan does not leak it may be put into warm water again, but otherwise the loaf must be kept warm by some other method, always taking care that it does not become hot on the bottom, as this will kill the yeast in the bottom of the pan and there will be a heavy, dark layer on the bottom of the loaf. Always keep the bread covered with a clean towel while rising. When the loaf is light, place it in a moderate oven. For the first ten minutes, the bread should continue to rise and in fifteen minutes should have begun to brown slowly. Keep the oven temperature very moderate

and allow the loaf to bake from 45 minutes to one hour. Remove the bread from the pan as soon as done, and allow to cool in the air, lightly covered with a towel.

Bread made by this process is perfectly satisfactory. The method is most desirable, because of the saving in time.

If compressed yeast cannot be obtained at the local stores, it can be ordered from any of the large grocery houses in the Twin Cities.

References

Hill, Janet McKenzie. Practical Cooking and Serving, pp. 648
 Farmer, Fannie Merritt. Boston Cooking School Cook Book, pp. 731
 Conn, H. R. Bacteria, Yeasts and Molds in the Home, pp. 225
 Atwater, Helen W. Bread and Bread-Making. U. S. Department of Agriculture, Farmers' Bulletin 389, pp. 32, April, 1910
 Journal of Home Economics, pp. 21-28. February, 1914.

Judging Bread

Club	The Score Card			
Class	Points			Points
General Appearance	20	Lightness		15
Size (5)		Crumb		30
Shape (5)		Character (20)		
Crust (10)		Color (5)		
Flavor	35	Grain—Distribution of Gas	(5)	
Total	100			
Story				
Standing				

Explanation of Score Card

General appearance is placed first simply because it comes first in the order of impressions which the loaf makes upon the eye. Moreover, in judging a loaf one cuts it and may thereby destroy its shape.

Crust.—The color and character of the crust enter into the general appearance and are, therefore, grouped with it. The characteristics of a good crust . . . may be summarized as follows: Brightness of bloom or color, crispness, cracked, pliable, smooth feel (coarse, grainy crust means bad molding).

Flavor.—In all the early work with bread it seemed most desirable to emphasize flavor because there was so much bread that looked very well and yet was really sour both in odor and to the taste. Moreover, emphasis should be put upon flavor in all foods. Any bread that is conspicuously "off" in flavor would be called, in the language of a teacher, "below passing," or unworthy of further consideration. Flavor is made up of the two elements, odor and taste. A well-trained nose will detect in the freshly cut loaf the lack of flavor or the approach to sourness before it can be detected by taste.

The degree of fermentation, the quality and condition of the flour, and the amount and character of the added substances all modify flavor, but the ideal is the flavor obtained by chewing the wheat grain.

Lightness.—This is a quality best shown in the loaf, though made up of many elements. It is often judged by size, apparent weight; the presence or absence of holes, and the tendency to crumble. These points enter into the judgment of lightness. Possibly the volume per pound of flour used would be more correct, but it is not easy for the home-maker to determine volume.

Crumb.—A very large part of the value of a loaf of bread is determined by the condition of the crumb. The points in judging the crumb have been given in detail in order to avoid confusion regarding the term texture, and in order to make plain the elements that enter into the formation of texture. The Book of Bread gives the following definition for it: "Texture can be defined as being the disposition or connection of interwoven threads or fibers," and describes it by saying "A loaf to be of good texture must not only be of fine and regular mesh, but also of soft, pliable, and springy crumb; that is, not coarse to look at, nor hard or unyielding to the thumb when pressed, nor yielding too much."

If a thin slice of bread be looked at by placing it between the observer and the light, the mesh and the distribution of the gluten walls can be seen easily.

Grain.—There is a very general agreement that by grain is meant the distribution of the gas cavities, also their size and number. This, too, may be seen in the thin slice when examining texture.

Elasticity is perhaps best shown in the half loaf by pressing the cut edges together to see whether they resume the original position when the pressure is removed.