

# CANNING CLUB—II

Boys' and Girls' Club Circular 8

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**COOPERATIVE EXTENSION WORK IN  
AGRICULTURE AND HOME ECONOMICS**  
UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE AND THE UNITED  
STATES DEPARTMENT OF AGRICULTURE COOPERATING  
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# CANNING CLUB—II

Canning Club II for the Boys' and Girls' Club work is a continuation of the work of Canning Club I. Canning Club I made the members familiar with the cold-pack method of canning and some simple ways of drying fruits and vegetables; while Canning Club II explains other ways of conserving fruits and vegetables to make a variety and to give tempting and delicious foods for the months when fresh fruits, vegetables and meats can not be obtained.

## CLUB YEAR AND REQUIREMENTS

The club year should include the fruit season and also the season when meats are fresh from slaughter.

The requirements are:

1. To can by the cold-pack method: (a) 24 jars of fruit and vegetables; (b) 6 jars of meats (at least two varieties).
2. To make 12 glasses of preserves (two varieties).
3. To make two jars of preserves (two varieties).
4. To make two jars of fruit butter (two varieties).
5. To brine one gallon of vegetables.
6. To make an exhibit and hold Achievement Day program.
7. To keep accurate records of all the canning work.
8. To send completed Record Book to the County Extension



Fig. 1.—Three canning club members doing their canning together.

Agent, or to the Agricultural Extension Service, Columbia, Mo.

## MEETINGS SUGGESTED

In order to become a Standard Club it is necessary to hold at least six meetings at which officers preside. You may have as many

NOTE.—Prepared by Essie M. Heyle, Extension Professor of Home Economics in collaboration with Mrs. J. K. Fyfer, Special Assistant in Boys' and Girls' Club Work.

more meetings as your Local Leader and the club members think are advisable.

I. Organization meeting.

II. Review of cold-pack method. Demonstration of canning some fruit or vegetable.

III. Jelly making discussed. Demonstration by Leader.

IV. Discussion of making fruit butters and jams with demonstration of making them.

V. Preserves, marmalades and conserves.

VI. Brining of vegetables and plans for Achievement Day.

VII. Canning of meats.

VIII. Exhibit and Achievement Day.



Fig. 2.—One of the club members canning at home.

## RECORD BOOK

One of the most important parts of club work is the record of the work done. In your Record Book you will find that there have been blank spaces left for describing the work. Be sure you do not leave out any important facts. Tell about each meeting and any picnics or parties the club has had during its club year.

## I. Organization

At the first meeting the Local Leader will take charge and explain carefully the plans of the club year. At this meeting officers should be elected. The time, place of meeting and name of the club should be discussed.

A committee should be appointed to make a simple constitution and by-laws and present them at the next meeting. A committee should also be appointed to make out the program for the year.

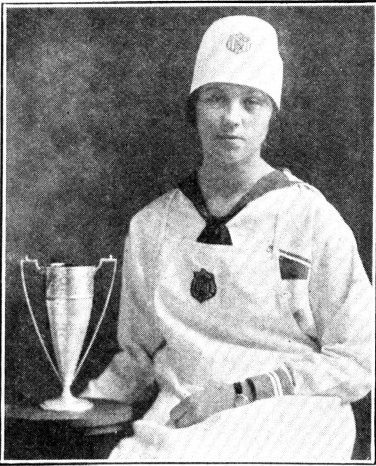


Fig. 3.—A prize winning canning club member.

The Club Leader should carefully explain what utensils are necessary for the work and tell the members how to keep the Records.

### RECORD BOOK

At your first meeting officers were chosen and committees appointed. Tell about them in your Record Book. How many members of this club were in Canning Club I? Are fruits and vegetables plentiful in your neighborhood?

## II. Cold-Pack Method Reviewed With Demonstration

After a careful review of the cold-pack method of canning, which is found in your Canning Club I (Circular 7), a demonstration of canning some fruit or vegetable should be made.

### RECORD BOOK

An interesting account of the demonstration should be written in the Record Book. What varieties of vegetables did you can? What fruits were canned? How many quarts of each did you have?

### III. Jelly Making

Is there any member who has not heard her mother or neighbor talk about her success with jelly making? Wasn't she proud to show how attractive the jelly looked?

It was such a bright, clear color—not a bit cloudy. It had a most delicious, delicate taste and it filled the requirements given for an ideal jelly.

Ideal fruit jelly should be clear, sparkling and transparent. When taken from the glass it should keep its shape, but quiver and not flow. It should be tender enough to cut easily with a spoon and yet firm enough to retain its shape when cut.

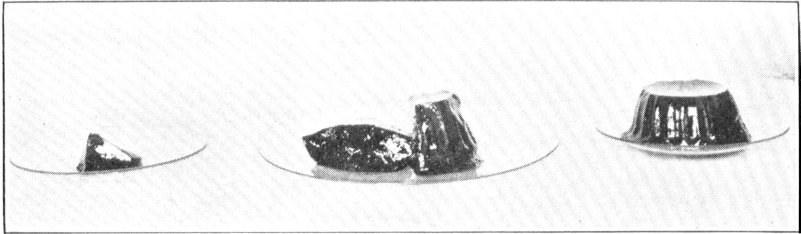


Fig. 4.—Jelly should be tender enough to cut easily with a spoon and yet firm enough to retain its shape when cut.

In order to make a satisfactory jelly a fruit must contain acid and a substance called pectin. The fruits which are rich in both and out of which good jelly can easily be made are:

Currants	Sour apples	Loganberries
Grapes	Crab apples	Blue berries
	Cranberries	

Ripe apples, blackberries and the sweeter plums have a medium amount of pectin and acid and will make jelly if not too much sugar is added, or if combined with juices from fruits which contain more acid or more pectin. For example, good jelly can be made if currants are combined with blackberries or raspberries, and if quince is combined with sour apples.

Peaches, pears and apricots have some pectin, but not enough acid. If tartaric acid or lemon juice is added to these a good jelly can be made but the delicate flavor of the fruit is lost.

Cherries and strawberries contain acid but not enough pectin. They are readily jellied by adding commercial pectin or home-made pectin obtained from apples or orange skins.

## PREPARING FRUIT FOR JELLY

Wash fruit, remove spoiled parts and cut into convenient sized pieces so that the juice will flow freely. Do not remove skins and seeds, as these contain a great deal of pectin.

## EXTRACTING JUICE

The juice for making jelly must be extracted by cooking, in order to have a large amount of pectin. For soft juicy fruits add just enough water to keep the fruit from burning until the juice begins to flow. For the harder fruits, which require considerable cooking to remove all the juice, add almost enough water to cover the fruit.

In making jelly crush the fruit several times with a heavy spoon or potato masher as it is cooking. Cook until the fruit is so soft that all the juice can be removed.

The juice should be strained through a moistened bag of double cheesecloth or flannel. If clear jelly is wanted do not squeeze the bag. After all the juice that will drip has dripped from the bag, the fruit pulp can be placed in a kettle, covered again with water, cooked and drained again. This should be strained as in the first extraction. Probably this juice will have to be cooked down slightly before adding the sugar.

The first two extractions could be combined for the jelly. Sometimes a third extraction is made. If the fruit juice is extracted only once the pulp will make a good fruit butter.

Do not try to make a large quantity of jelly at one time. About one or two quarts of juice is a convenient amount to cook at one time, and since the object of this cooking is to have some of the water evaporated rapidly, a wide shallow pan is best. Long cooking makes jelly of a darker color, and a stronger, less fruity flavor. Bring the juice to the boiling point, skim if necessary, then add the sugar, stir until dissolved and cook rapidly until the mass gives the jellv test (mentioned below).

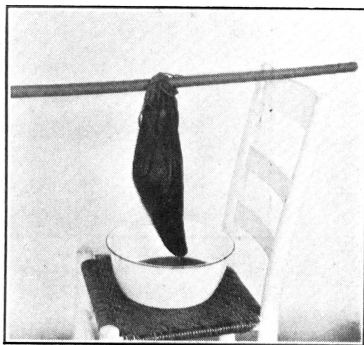


Fig. 5.—The jelly bag may be tied to the handle of a broom which is placed across the backs of two chairs.

## SUGAR AND PECTIN

A good grade of either beet sugar or cane sugar will make good jelly. The amount of sugar depends on the amount of acid and pectin in the fruit.

Currants, green grapes, plums, sour apples and cranberries contain enough acid and pectin so that 1 cup of sugar can be used for each cup of fruit juice. Berries, sweet apples and ripe grapes require only  $\frac{3}{4}$  as much sugar as juice by measure. For the second and third extraction when cooked alone use only  $\frac{1}{2}$  cup of sugar to each cup of juice. A better jelly is more certain to result from ber-



Fig. 6.—Completely cover the top to a thickness of  $\frac{1}{8}$  inch with hot melted paraffin.

ries, quinces and ripe grapes if juice from sour apples is combined with the fruit juice. As much apple juice as fruit juice or  $\frac{1}{3}$  apple juice and  $\frac{2}{3}$  fruit juice may be used.

## JELLY TESTS

Before testing jelly remove the jelly from the fire, otherwise it may become over-cooked or burned. The most satisfactory and most commonly used test for jelly is the sheeting test, although the cooling test is also used.

*Sheeting test.*—If the jelly falls from the side of the spoon in wide sheets instead of dropping, the jelly is considered done.

*Cooling test.*—Take a small amount of the juice from the kettle and put it in a cold saucer. If the juice, when cool, does not run

when the saucer is tipped, and if it forms a solid mass when pushed with a spoon, the jelly is done.

### JELLY GLASSES

Jelly glasses should be washed carefully. Before using them they should be placed in a pan of water so that the water completely covers them and then the water should come slowly to the boiling point. Handle the glasses as little as possible before filling. When filling the glasses they should be set in a pan of hot water or placed on a cloth wrung out of hot water in order to avoid breakage. Haste should be made so that the jelly will not harden in the pan.

If the jelly is slightly undercooked, sometimes it will stiffen if it is left uncovered in the sun for several days. Cover with a cheese cloth to keep out dust.

When the jelly is set, cover the top completely with melted paraffin to a thickness of about  $\frac{1}{8}$  inch. Do not heat the paraffin directly over the fire, but place the pan containing it in another pan of hot water. If the paraffin is hot it will kill any mold spores that may have dropped on the surface of the jelly and the jelly will not mold. Besides, the paraffin keeps the jelly clean and prevents it from drying out or absorbing water. Tin covers should be placed over the tops of the glasses. They should then be neatly labeled and stored in a cool, dry, dark place.

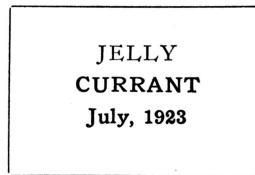
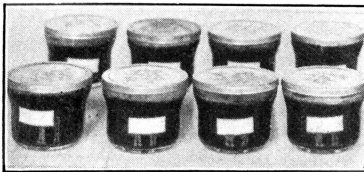


Fig. 7.—Labels should be carefully placed.

The label should be small and neatly written or printed with the date included. Place all labels the same distance from the bottom of the glass and half-way between the two seams of the glass.

### JELLY TROUBLES

**Soft or syrupy jellies** are caused by using more sugar than the pectin in the juice requires. The direct cause may be the addition

of too much water when the juice was extracted, or in not cooking the juice enough before the sugar was added.

**Tough jelly** is caused by using too little sugar for the amount of pectin.

**Gummy jelly** is caused by overcooking, as too long cooking tends to destroy the jelly making power of the pectin.

**Crystals** are sometimes found when too much sugar has been added or when the juice and sugar have not been cooked together long enough. Grape jelly sometimes has cream of tartar crystals that are different from the sugar crystals found in other jellies. The cream of tartar crystals can sometimes be avoided by allowing the juice to stand one or two days before making the jelly, and pouring the juice carefully off the crystals that settle at the bottom of the pan, or by canning the fruit juice and making up the jelly as needed.

**Moldy jelly** may be due to: (1) Lack of protection of the jelly while cooking; (2) Paraffin not being sufficiently hot when poured on the jelly; (3) Covering the jelly when it is still warm; (4) Not covering the jelly completely.

**Cloudiness** may be caused by straining through too thin a cloth, by squeezing the jelly bag, by not skimming thoroughly, or by allowing the jelly to cool slightly before being poured into the glasses so that it is partly jellied and entangles scum if this has not been removed.

Score Card for Jellies	
Flavor .....	40
Consistency .....	35
Clearness and color .....	15
General appearance .....	10
(Covering)	
(Container)	
Total .....	100

### MAKING JELLY IN WINTER

Many women find it an advantage to can fruit juice and make their jelly at intervals during the winter. The advantages of this are: (1) Jelly can be made in a cooler and less busy time of the

year; (2) Sugar is often cheaper in winter than during the preserving season; (3) It is easier to store fruit jars of juice than the number of glasses of jelly that this would make; (4) Freshly made jellies often have a better flavor than jellies which have been stored.

Directions for making jelly with commercial pectin come with such preparations. Most housekeepers will prefer to use less sugar than most of these recipes call for. Home-made pectin can be made from sour apples or orange skins, but it is somewhat troublesome to prepare. Typed directions will be furnished those interested.

### RECORD BOOK

After your experience in jelly making, you should write an account of it in the Record Book. What fruit did you use for making jelly? What proportion of sugar did you use? Did you make more than one extraction? How much jelly have you made? What score would your jelly make?

## IV. Fruit Butters and Jams

Fruit butters and jams are other forms in which fruits may be kept for winter use.

### GENERAL PROCEDURE

Fruit butters, jams, preserves, marmalades and conserves are often made with sufficient sugar to keep them without sealing. The amount of sugar in these products is often a pound of sugar to a pound of fruit. Most persons, however, not caring for quite so rich a product as this, use less sugar and can the product. The amount of sugar varies not only with the individual taste, but also with the acidity of the fruit. Since general directions rather than recipes are given in most cases, the amount of sugar suggested can be increased or decreased to suit the individual's taste and the kind of fruit used. The ideal amount to use is that amount that will just bring out the appetizing tartness of the fruit and not cover up its characteristic flavor.

Sugar is best added ten to fifteen minutes before the end of the cooking period.

**Cooking.**—Boil rapidly; do not simmer.

The length of time that these products should be cooked depends upon the consistency desired. A fairly firm and in some cases jelly-like consistency is considered more desirable than a soft, runny product. To tell whether the product is cooked enough, place a drop on a cold plate and cool; then push with a spoon and tip the plate to see if desired consistency is reached. The preserving kettle must be removed from fire while the product is being tested.

Products that require long cooking, as fruit butters, may be placed in a moderate oven to avoid the constant stirring and the danger of being burned by the sputtering fruit.

**Putting in Jars—Storing.**—The best method of storing jams, preserves, fruit butters, etc., is to can them as you do other fruits. All such products should be stored in a cool, clean, dry, dark place.

### FRUIT BUTTERS

Good fruit butters are a smooth, even, fine grained mixture of medium consistency, without seed or distinct pieces of fruit, and with no evidence of juice as a separate liquid.

Apples, peaches, pears, plums, and grapes are the fruits usually used for fruit butters.

**Making Fruit Butters.**—1. The cooked pulp of fleshy fruits left from making jelly can be forced through a colander and used for fruit butters, with or without the addition of a fruit juice, such as cider.

2. Measure fruit pulp and use one-half to two-thirds as much sugar, by measure, as there is pulp.

3. Cook, stirring constantly until thick enough so that when a spoonful of it is lifted from the boiling mass it is heaping full, and when a spoonful is placed on a dish no liquid separates from the solid portion.

4. Spice the butter with cinnamon, cloves, allspice, or any desired combination of these.

5. Can in air-tight, sterilized jars.

APPLE BUTTER

- |                            |                              |
|----------------------------|------------------------------|
| 1 peck ripe cooking apples | 2 teaspoonfuls ground cinna- |
| 1 gallon cider             | mon                          |
| 1 to 1½ pounds sugar       | 2 teaspoonfuls ground cloves |

Wash apples, remove bad spots and slice. Cook with cider until very soft. Push through colander. Cook pulp until it begins to sputter. Add sugar, cook slowly as is mentioned in the foregoing paragraph No. 3. Add spice just before removing from fire. If cider is not available use water and one-half pound extra sugar.

Scoring of Fruit Butters.	
Smoothness .....	20
Consistency .....	20
Flavor .....	40
Color .....	10
General appearance .....	10
	100
Total .....	100

JAMS

Perfect jams should have a rich fruity flavor, should be thick but soft, and free from lumps, and should be easily divided into portions with a spoon. The fruit should be well mixed through the juice, and the juice should not separate from the fruit.

Fruits which are used for jams are strawberries, raspberries, blackberries, loganberries, apricots, peaches, grapes, and gooseberries. Equal parts of currants are sometimes used with blackberries, raspberries, or gooseberries as they help to give the jam a jelly-like consistency and make pleasant flavor combinations with the berries.

**Making Jam.**—1. If large fruits are used, peel, core, and chop or mash. If berries or grapes are used, crush.

2. Add three-fourths as much sugar as fruit by weight and cook, stirring fairly constantly. Peaches and apricots may need to have a small amount of water added to them. More juicy fruits can have the sugar added directly to the mashed fruits, and the whole cooked over a slow fire, until the jam is of the desired consistency when tested on a cold plate.

Pour into sterilized jars and seal.

#### Scoring Jams, Etc.

Homogeneity, (Even distribution of pulp, juice and seed)	20
Consistency .....	20
Flavor .....	40
Color .....	10
General appearance .....	10
	—
Total .....	100

### RECORD BOOK

What has been most difficult in the club work so far? What have you most enjoyed? Have you learned anything in the club work that you didn't know before? Can you improve on any of your canning and fruit preserving because of things you have learned from experience in the club? Kodak pictures will add much to your book.

## V. Preserves, Marmalades and Conserves

### PRESERVES

Preserves should consist of distinct pieces of almost clear fruit of uniform size and as nearly as possible the natural color, shape, and flavor, well distributed through a thick clear syrup. When a portion of the preserve is dropped from a spoon, the fruit retains a heavy coating of the syrup.

Strawberries, peaches, plums, pears, cherries, quinces, watermelon rind, tomatoes and pineapples are fruits which are commonly preserved.

**Making Preserves.**—1. Prepare fruit as for cooking, keeping small fruit whole and cutting large fruit in fairly good-sized pieces.

2. Weigh fruit and weigh out three-fourths as much sugar as fruit.

3. If fruit is hard, as quinces, pineapples or some varieties of pears, cook in boiling water until tender, as syrup tends to toughen fruit. Use this water for making syrup so none of the flavor minerals, or natural sugar of the fruit is lost.

4. Make a thick syrup of sugar using one-fifth as much water as sugar. For juicy fruits as berries or cherries this syrup can be thick enough so it will thread, but for less juicy fruit it should just be brought to the boiling point.

5. Cook fruit in syrup until it is tender and almost clear and the juice is of the desired consistency when tested on a cold plate. Remove all scum. Many persons prefer to cook berry, plum, and quince preserves until they give the first indication of a jelly test so the juice will be slightly jellied on the cold preserves.

6. Put into hot, sterilized jars, and seal.

Make only a small amount of preserves at one time and be careful not to break the pieces of fruit, since the fruit in well made preserves should retain its shape.

Many persons prefer to cook their preserves in the oven. Fruit in preserves thus made keeps its shape better than when cooked on top of the stove.

Good preserves with a jelly like consistency can be made with even less than three-fourths as much sugar as fruit, by weight, if commercial or home made pectin is used although most pectin recipes call for more sugar than of fruit in an effort to make a large

quantity of preserves from a small amount of fruit. Directions for making these will be found with the package of commercial pectin.

Watermelon preserves will be improved by the addition of lemon or pineapple, and tomato preserves by the addition of lemon.

Scoring Preserves.	
Fruit—	
Shape .....	10
Clearness and color .....	5
Texture .....	10
Flavor .....	20
	45
Juice—	
Clearness and color .....	5
Consistency .....	10
Flavor .....	20
Proportion of juice .....	10
	45
General appearance .....	10
	10
Total .....	100

## MARMALADES

Perfect marmalade has tender fruit well distributed in a juice which jellies slightly so the consistency is that of jam.

Oranges, grapefruit, peaches and oranges, rhubarb and pineapple or currants are used for marmalades. The fruit must first be cooked in water until tender before the sugar is added. Marmalades are made with about the same amount of sugar as jelly and should be cooked so that the mixture gives a jelly test.

**Orange Marmalade.**—Use about one-fourth as many lemons as oranges. Remove seeds from fruit, put through food grinder or slice in thin small slices. Add fruit to water in the proportion of three pints of water to each pound of prepared fruit and cook 1 and ½ hours or until the peel is very tender. Add more water as needed during cooking. Weigh and add one pound of sugar for each pound of this material. Cook until the syrup jellies. Less total time of cooking is required if, instead of cooking fruit the entire time it is boiled fifteen minutes covered, and boiled again fifteen minutes on the following day.

**Grapefruit Marmalade.**—Use one lemon for each two grapefruits. Prepare as for orange marmalade.

**Amber Marmalade.**—One grapefruit, two oranges, one lemon, four quarts cold water, three pounds sugar. Make in same way as orange marmalade is made.

**Currant Marmalade or Jellied Currants.**—Measure currants; make a thick syrup that will thread, of as much sugar by measure as of currants and water. Add currants and cook about five minutes or until a jelly test is obtained. Do not make more than a bowlful at a time. Stir jelly occasionally as it is cooking so currants will be well distributed in jelly.

**Apricot or Peach Marmalade.**—Prepare apple juice of tart apples as for making jelly. To each cupful of this juice add three-fourths cupful of sugar and about one-fourth cupful of finely sliced peaches or apricots. Boil down until a good jelly test is obtained.

## CONSERVES

Any fruits may be combined to make conserve, but the name of the conserve should be that of the most prominent fruit flavor.

**Making Conserves.**—1. Prepare fruit as for cooking, cutting it up into rather small pieces.

2. Weigh fruit and add three-fourths as much sugar as fruit by weight, or if preferred an equal amount.

3. Put over a slow fire until sufficient juice is cooked out of the fruit so there is no danger of burning, then cook preserves rapidly until the desired consistency is reached.

4. Put in sterilized glass jars or glasses. Seal or cover with paraffin.

If nuts are added, they are added at the last. When oranges are used, they can be run through a coarse grinder, juice and skin both being used, or they can be sliced. Some suggestions for preserves are given here.

**Cherry Conserve.**—Use 2 quarts pitted cherries, 3 cupfuls pineapple,  $\frac{1}{2}$  pound English walnuts, and 5 pounds sugar.

**Cherry Conserve.**—Take 2 quarts pitted cherries, 1 to 2 quarts currants, and 1 pound of sugar to each pound of fruit.

**Rhubarb Conserve.**—Use  $3\frac{1}{2}$  pounds rhubarb, 3 pounds sugar,  $\frac{1}{4}$  pound nuts, 2 oranges and the juice of 2 lemons.

**Strawberry Conserve.**—To make this delicious conserve take 1 quart chopped rhubarb, 1 quart strawberries and 3 pounds sugar.

Another form of strawberry conserve contains 1 pound grated pineapple, 2 pounds strawberries and  $2\frac{1}{2}$  pounds sugar.

**Plum Conserve.**—Take 5 pounds blue plums, 2 packages or  $1\frac{1}{2}$  pounds of seeded raisins, 3 oranges, 3 pounds of sugar and  $\frac{1}{2}$  pound nut meats.

**Peach or Apricot Conserve.**—Equal parts of peaches, or apricots and pineapple are used with  $\frac{3}{4}$  as much sugar as fruit by weight. Dried apricots and canned pineapple may be used for this conserve.

### RECORD BOOK

Do you enjoy using new recipes? Tell about any preserving, canning, butter making, etc., that you have done since the last meeting. What have you been doing in the social part of your program? Have you had any visitors or demonstrations by other people besides your own members?

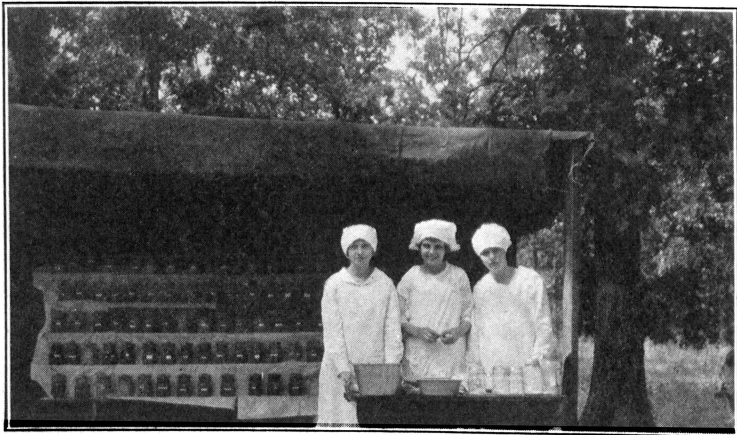


Fig. 8.—Cass County team giving a demonstration out of doors.

## VI. Brining of Vegetables. Plans for Achievement Day.

Up to this point you have been learning how to preserve vegetables by applying heat either by canning or drying them. There is another method that has been successfully used and which gives further variety—that of brining.

There are in general two ways of preserving with salt: (1) by adding enough salt so that the product will not ferment; and (2) by adding only enough salt so that the product will ferment and produce an acid which checks further fermentation and keeps the vegetable.

When food is to be brined without fermentation, one-fourth as much salt by weight as of the food must be used. This makes such a salty product that the salt needs to be soaked out of the food before it is used. Food brined with this much salt does not have an acid taste.

By the second method, which is the method used in making sauer kraut and dill pickles, only 2 to 3 per cent of salt or about  $\frac{1}{4}$  pound of salt to 10 pounds of the product is used. This does not make the product salty enough to keep the bacteria from growing and they change the sugars present in the vegetables into a lactic acid such as is found in sour milk, giving the product a pleasant acid taste which many people like. The salt can be added dry or it can be made into a weak brine. After enough of this lactic acid is formed the bacteria are killed but the molds will grow on top and spoil the product unless the scum is removed and hot paraffin or oil is poured over the top to keep the air from the product.

### PREPARATION OF PRODUCT

In brining there are three steps, preparation of product, packing and storing. After the vegetables are washed, all surplus water should be drained off and the vegetables weighed. Use  $\frac{1}{4}$  pound of salt to 10 pounds of vegetables or  $2\frac{1}{2}$  per cent of salt by weight.

### PACKING

Stone crocks or jars are best to use as containers though wooden vessels such as kegs are often used. Sometimes wooden vessels give a disagreeable taste to the vegetable.

Cover the bottom of the container with a layer of vegetables

about 1 inch thick and sprinkle salt over this layer. Continue until all the quantity of vegetable weighed out has been packed. Care must be taken to distribute the salt evenly between the different layers as the amount of salt weighed at the beginning is sufficient. Adding more salt for the last layers would produce too salty a product.

When the product is packed the container should be about three-fourths full. After the last of the salt is sprinkled over the top layer one or two thicknesses of cheesecloth should be spread over it. The cheesecloth should be tucked down at the sides. A plate or clean round board should be placed on top with a weight sufficient to extract the juices from the vegetables to form the brine. Limestone, sandstone or iron weights should not be used unless they are put on top of an inverted bowl so the brine will not touch them.

If a brine does not cover the top of the vegetables within 24 hours more weight should be added.

The packed vegetables should be kept in a moderately warm room to ferment. Fermentation is shown by bubbles rising to the surface of the liquid. When the container is tapped and no more bubbles rise fermentation is finished.

### STORING

After fermentation is completed the container should be placed in the cellar or a cool storeroom and the surface of the liquid sealed in order to prevent a scum from forming. The scum is a growth of micro-organisms or very small plants which, if left undisturbed, will finally cause the fermented vegetable to spoil. Keeping out the air from the surface of the brine will entirely prevent scum formation.

Very hot paraffin should be poured over the surface to form an air-tight seal. If the paraffin becomes broken it should be reheated, strained through several thicknesses of cheesecloth and poured over the surface again.

The directions for brining cabbage with fermentation and brining corn without fermentation are as follows:

**Sauer Kraut.**—Use only mature, sound cabbage, and be extremely clean in handling it. All outer green or decayed leaves and the core should be removed. The cabbage should be shredded. Use 1 pound salt to 40 pounds of cabbage. Put layer of cabbage 4 to 6 inches deep in a stone jar with salt and pound to extract

juice. Continue until the jar is filled and the liquid comes over the cabbage. Place cabbage or horse-radish leaves over the top, cover with weight, cloth and plate. Set aside in a cool place. If mold appears, skim it off and cover the top with fresh brine. Curing takes from 16 to 20 days and is complete when bubbles cease to rise at the side of the jar. Seal surface of brine with paraffin after fermentation is completed.

**Salted Corn.**—Husk the ears of corn and remove the silk. Cook in boiling water for about 10 minutes to set the milk. Cut the corn off the cob with a sharp knife. Weigh the corn and pack in layers with  $\frac{1}{4}$  its weight of fine salt as described under packing.

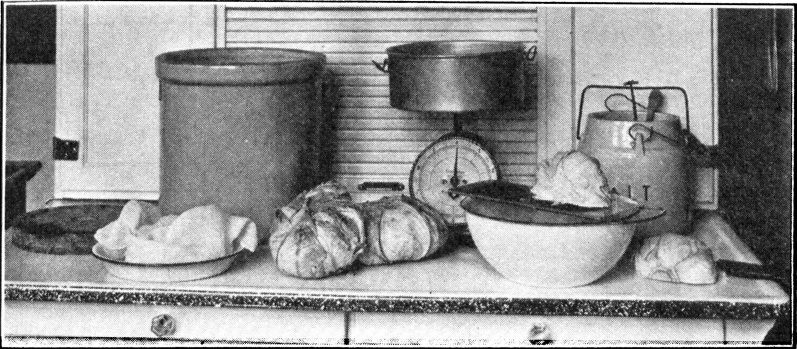


Fig. 9.—Equipment for making sauer kraut.

## PREPARATION OF SALTED VEGETABLES FOR THE TABLE

In general, salted vegetables may be prepared for the table in much the same manner as fresh vegetables, except that before being cooked they should be soaked in fresh water for several hours or longer to remove the salt, the water being changed, if necessary, several times. In some cases it may be necessary also to change the water once or twice during the boiling of salted vegetables.

## ACHIEVEMENT DAY PLANS

The Achievement Day plans should be made early enough to secure help from the County Agent or the Agricultural Extension Service at the time you wish to have Achievement Day.

The program may include some good jolly songs, an interest-

ing story of the club work and demonstrations that will best show interesting points of the year's work. Get your program well planned and don't leave any thing to be done at the last that you can do before then.

### **RECORD BOOK**

What method of brining did you use? What success did you have in brining? What did you brine? Have you had any spoilage of products so far in this club? If so, to what was it due? In all of your canning work what gave you the most pleasure and satisfaction in making?

## VII. Canning Meats.

Canning meats should not be undertaken until the club member has canned many quarts of vegetables by the cold-pack method, as meat is harder to process so that it will keep without risk to the one who eats it.

Since the waning of the fruit season is also the time to cull poultry for winter, chickens could then be obtained for canning; but meats should be canned in cold weather as that is the time when most farmers have fresh meats. All meats should be fresh and well cooled before canning.

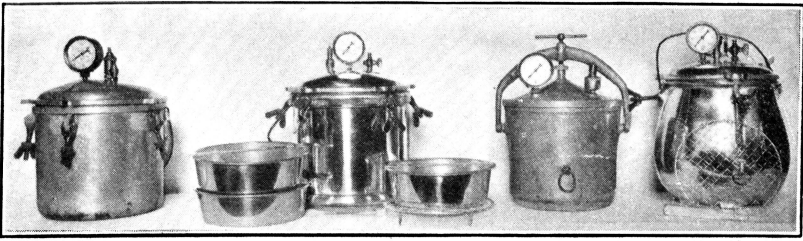


Fig. 10.—For canning meats the steam pressure outfit is the quickest method, but the water-bath outfit is also effective.

### POULTRY AND GAME BIRDS

Poultry and game birds may be successfully canned by either of the methods below:

**Method 1.**—Kill the fowl and draw at once. Wash carefully and cool. Cut into convenient sections and place in a kettle. Cover with hot water and boil until meat can be removed from the bones. After meat has been removed from bones pack closely in glass jars. For seasoning, add level teaspoonful of salt to each quart of meat. Fill jars with pot liquid. Adjust the tops and partially tighten. Process for the length of time given below for the particular type of outfit used.

Water-bath (home-made or commercial) .....3 hours

10 to 15 pounds steam pressure .....1 hour

Remove jars, tighten covers, invert to cool, and test joints. Wrap jars with paper.

**Method 2.**—For spring chicken, fried. After cleaning, season and fry as when preparing for serving, but without the use of flour. Cook until two-thirds done. Pack in jars. Pour liquid from

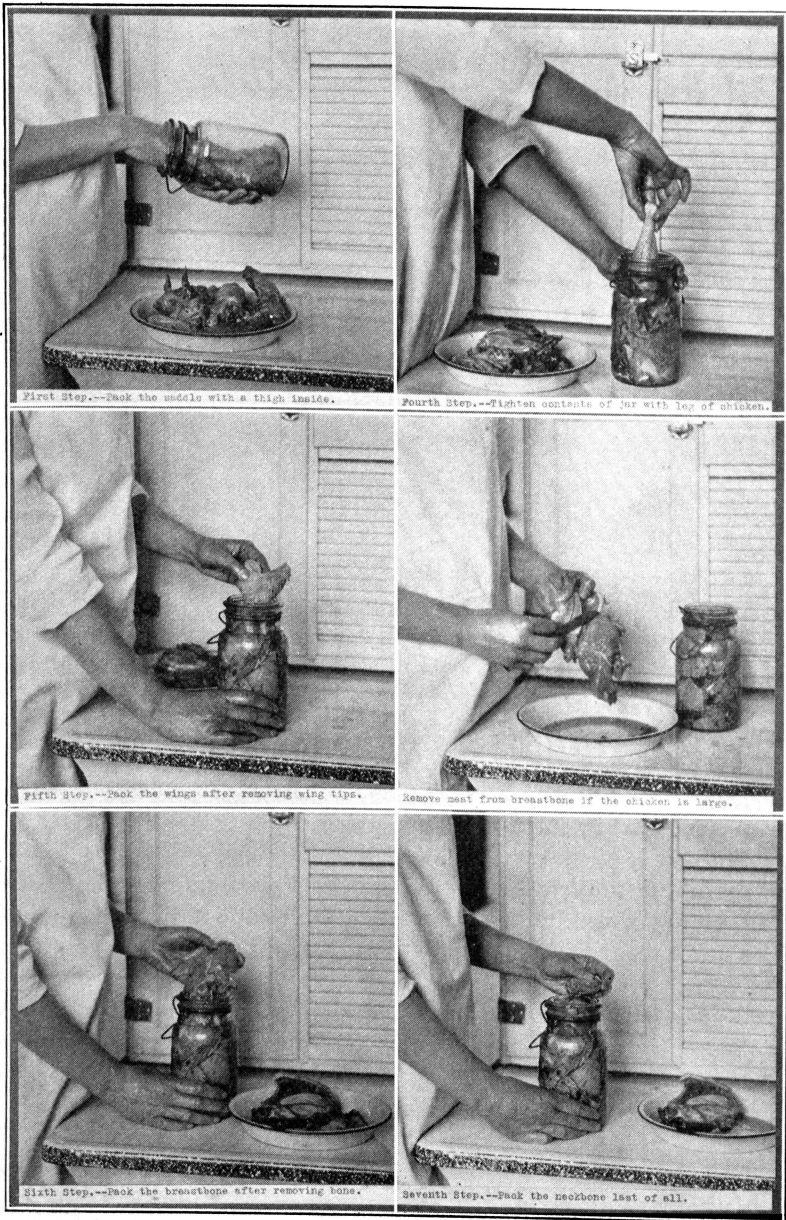


Fig. 11.—Some of the successive steps in packing chicken.

the frying pan over the chicken. Place tops in position and partially tighten. Process in water-bath canner 3 hours, or in 10 to 15 pounds steam pressure 1 hour. Remove jars and tighten tops.

**Method of Packing Chicken.**—Use a one-quart jar that is hot. Do not pack the giblets with the meat. 1. Pack the saddle with a thigh inside. 2. Pack the wishbone with a thigh inside. 3. Pack the backbone and ribs with a leg inside. 4. Pack the leg, large end downward, alongside the wishbone. 5. Pack the wings after removing tips of wings. 6. Pack the breastbone. If the chicken is large remove the meat from the breast bone and do not pack the bone. 7. Pack the neckbone.

### **BEEF, PORK, SAUSAGE, LAMB, RABBIT, SQUIRREL AND FISH**

Cut into convenient sized pieces to fill jars. Prepare by frying, oven baking, roasting or stewing. Do not roll meat or fish in flour as the flour prevents the heat from penetrating the flesh to some extent and makes the meat hard to process. Cook two-thirds done. Pack in jars and add the gravy from the roasting pan or the pot liquid. Adjust tops and partially tighten. Process in water-bath canner  $3\frac{1}{2}$  hours or in 10 to 15 pounds steam pressure 1 hour. Remove jars and tighten tops.

### **RECORD BOOK**

At this point it would be well to have Club Leader inspect Record Books, make comments upon them to the members and give suggestions for improvements. The Record Book should always be kept up-to-date as they will be more correct if they are.

## VIII. Exhibit and Achievement Day.

With plans made long enough ahead the exhibit and Achievement Day should be most successful. As in Canning Club I project, arrangement of canned products, the decoration of the room, the cleanliness of the club aprons and caps all make for success. Demonstrators should be wide awake, they should speak slowly, distinctly and to the point. Keep the program moving and put life

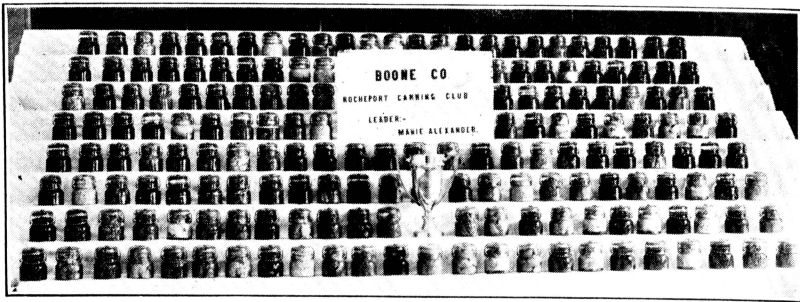


Fig. 12.—A successful canning exhibit for the State Fair.

into it. When the ribbons are tied find out why the blue ribbon was given that special exhibit. If you didn't win a ribbon find out where you can improve, think of the many things you have learned in the club and be determined to win next time.

### RECORD BOOK

This is the last time to use the Record Book. Write up the program and exhibit as interestingly as possible. See that the Record Book is in a neat, clean condition and that all meetings, all questions and the Club Story for the year is complete. This book should be a written picture of the work you have done and those reading it can almost tell what kind of a person wrote the book.

### SUGGESTIONS FOR ROLL CALL—SECOND-YEAR CANNING CLUB

1. Steps in canning.
2. Special points to remember in canning.
3. Fruits that make good jelly.
4. Reasons for failure in jelly making.
5. What is the distinguishing quality of preserves, conserve, jam, marmalade, fruit butters, etc.
6. Desirable kinds and cuts of meat to can.

### SUGGESTIONS FOR DEMONSTRATIONS AT CLUB MEETINGS

1. Testing rubber jar rings and jars.
2. How to test jelly.
3. Making preserves.
4. Brining vegetables.
5. Canning meat.

### SUGGESTIONS FOR PUBLIC DEMONSTRATIONS

1. Making jelly.
2. Canning meat

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