What can I do in the 4-H Foods Preservation Project?
• Practice ways to keep food safe to eat.
• Preserve foods by canning, freezing or drying.
• Preserve food for home use.

Introduction
Throughout history we have tried to store foods when they were plentiful for times when they were not. Food Preservation keeps food safe for future use.

There are several methods of preserving food. This project includes sections on canning, freezing, drying, pickling and jellied products. All can help ensure safe food for eating; so choose the methods that best suit your needs, equipment available and your planned use.

Following the correct procedures in food preservation is necessary to produce an acceptable, safe product. Food preservation recommendations changed in 1988. Timetables or methods written before then may be unsafe and should not be used. The USDA Complete Guide to Home Canning, 1994, should be used. It is found on the web at: http://www.uga.edu/nchfp/publications/publications_usda.html

This project is for experienced members. Before enrolling in preservation, you should have completed other food projects.

You may do one or more of the following units each year you are enrolled in food preservation:
• Canning Fruits and Vegetables
• Freezing Foods
• Drying Foods
• Pickles and Relishes
• Jellies, Jams and Preserves

To complete a unit you are expected to do at least four activities from that unit.

For All Food Preservation Projects
Members may choose to do the following:
• Give a talk or demonstration on food preservation methods, equipment or experiences.
• Compare home preservation costs of various methods to commercial cost – for example - tally your cost for making jam or jelly and compare to similar food purchased at the grocery store.

Canning Foods
What you can learn:
• The necessary supplies and equipment needed for canning.
• How to operate a pressure canner safely.
• How to remove jars safely from a water bath canner or pressure canner for cooling.
• What botulism is and how to prevent it.
• What low-acid foods are and why they must be processed in a pressure canner.
• How much headspace should be allowed in home canned fruits, vegetables and jellies.
• How to select, clean and prepare fruits, vegetables and foods for canning at home.
• Selecting proper jars and two-piece lids for home canning use.
• How to check jars to be sure they have sealed.
• How to label and store jars after processing.

What you can do:
• Peel and either raw- or hot-pack tomatoes or fruit and process them in a boiling water bath for proper amount of time.
• Raw- or hot-pack green beans or another vegetable and process in a pressure canner.
• Prepare and use syrup for canning fruits.
• Make a one year food preservation plan for your family.
• Help process foods for home consumption using appropriate boiling water bath and pressure canning procedures.
Freezing Foods
What you can learn:
• How to select best quality foods for freezing.
• Appropriate methods to clean and prepare fruits and vegetables for freezing.
• Importance of blanching vegetables before freezing.
• To identify and select appropriate packaging materials and containers for freezing foods.
• Why “headspace” is necessary when packing foods for freezing.
• How to label frozen products.
• To identify and use reliable sources of information for freezing practices and procedures.
• To cool combination dishes thoroughly before freezing.
• How color changes can be slowed down.
• What freezer burn is and what causes it.

What you can do:
• Prepare vegetables, fruits, and meats for the freezer using recommended procedures.
• Freeze mixtures, baked goods, soups, etc., using up-to-date, approved methods.
• Make a year’s food preservation plan for the family. Help carry out the plan by coordinating sources of food – home garden, orchards, local markets – and plans for quantity buying.
• Compare the color and flavor of green vegetables and carrots after 3 months of freezer storage when blanched and not blanched before freezing.
• Compare foods frozen at 0 degrees F with those held at 15 degrees F in a freezing compartment of a refrigerator.

Drying Foods
What you can learn:
• Advantages/disadvantages of drying foods.
• Foods suitable for drying.
• Pretreatment necessary prior to drying foods.
• How to blanch vegetables before drying.
• How to make a sulfite treatment used to pre-treat fruits before drying.
• The various methods of drying available.
• How to condition or pasteurize foods that have been dried.
• How to use dried foods.

What you can do:
• Follow the recommended instructions for pre-treating and drying vegetables and fruits.
• Dry foods in your oven, microwave, or food dehydrator and compare the results.
• Rehydrate fruits and vegetables to be used in meal preparation.
• Use herbs you have dried to season dishes you prepare.
• Dry meats to make jerky.

Pickles and Relishes
What you can learn:
• How to identify the types of pickled products.
• How to select appropriate ingredients for making pickles and relishes.
• What ingredients are used to make pickles and relishes and the function of each.
• The appropriate equipment necessary for processing pickles and relishes.
• How to label and store pickled products correctly.
• How to identify causes of pickle problems and how to prevent them.
• Why canning salt is used instead of table salt.
• The effect brine strength has on pickles.
• How to identify and use reliable sources of information and instructions for canning pickles and relishes.

What you can do:
• Make a variety of pickles from brined or fermented cucumbers, fresh pack or quick process cucumbers, a fruit or melon, and a vegetable other than cucumbers.
• Make chutney.
• Make sauerkraut.
• Make a vegetable relish.
• Make catsup.
• Make a chili sauce.
• Make a fruit relish.
Jams, Jellies and Preserves - Jellied Products

What you can learn:

- The difference between jam, jelly, marmalade, conserve, preserve and fruit butter.
- The equipment needed to make jams, jellies, and preserves.
- How to seal and process jams, jellies and preserves.
- Why jellied products may be imperfect and how to prevent problems from happening again.
- What ingredients are used to make jellied products and the function of each.
- How to identify and use reliable references for information and instructions on preparing jellies, jams and preserves.
- How to determine the amount of pectin a fruit contains.

What you can do:

- Make one recipe of jelly using a fruit juice you have extracted.
- Make one recipe of fruit jelly without adding pectin.
- Make one recipe of fruit jelly with added pectin.
- Make one recipe of jelly from a bottled or frozen concentrated juice.
- Make one recipe of jam using powdered pectin.
- Make one recipe of jam using liquid pectin.
- Make one recipe of jam without added pectin.
- Make one recipe of marmalade.
- Make one recipe of a conserve.
- Make one recipe of a preserve.
- Make one recipe of fruit butter.

Preservation Resources

Web Sites:
For the most recent web links, visit: http://www.4-H.uiuc.edu/projects/onlineref.html

National Center for Home Food Preservation: http://www.homefoodpreservation.com

University of Georgia College of Family and Consumer Sciences Publications: Food Safety and Preservation: http://www.fcs.uga.edu/ext/pubs/food/canning.php


Print Resources:
“So Easy To Preserve” by Cooperative Extension The University of Georgia, 5th Edition, 2006. Your local extension office or information on ordering at: http://www.uga.edu/setp/
4-H Planning Guide for Food Preservation

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