



United States
Department of
Agriculture

National Institute
of Food
and Agriculture

Complete Guide to Home Canning

Agriculture Information
Bulletin No. 539



Table of Contents

Section	Page
Acknowledgments	not numbered
Preface.....	ii
For Safety's Sake.....	iii
Do Your Canned Foods Pass This Test?	iii
Determining Your Altitude Above Sea Level	iv
Guide 1. Principles of Home Canning	1-3
Why can foods?	1-5
How canning preserves foods	1-5
Ensuring safe canned foods	1-6
Ensuring high-quality canned foods	1-11
Jars and lids	1-13
Recommended canners	1-17
Selecting the correct processing time	1-22
Cooling jars	1-25
Testing jar seals	1-25
Reprocessing unsealed jars	1-26
Storing canned food	1-26
Identifying and handling spoiled canned food	1-26
Preparing pickled and fermented foods	1-27
Preparing butters, jams, jellies, and marmalades	1-29
Canned foods for special diets	1-31
Canning fruit-based baby foods	1-31
How much should you can?	1-32
Glossary of Terms	1-33
Index of Foods	1-36
Guide 2. Selecting, Preparing, and Canning Fruit and Fruit Products	2-3
General	2-5
Preparing and using syrups	2-5
Apple butter	2-6
Apple juice	2-6
Apples—sliced	2-7
Applesauce	2-7
Spiced apple rings	2-8
Spiced crab apples	2-9
Apricots—halved or sliced	2-9
Berries—whole	2-10
Berry syrup	2-10
Cantaloupe pickles	2-11
Cantaloupe pickles, no sugar added	2-12
Cherries—whole	2-12

Cranberry orange chutney	2-13
Figs	2-14
Fruit purees	2-14
Grapefruit and orange sections	2-15
Grape juice	2-15
Grapes—whole	2-16
Mango chutney	2-16
Mango sauce	2-17
Mixed fruit cocktail	2-18
Nectarines—halved or sliced	2-18
Peaches—halved or sliced	2-19
Pears—halved	2-19
Pears, Asian—halved or sliced	2-20
Pineapple	2-21
Plums—halved or whole	2-21
Rhubarb—stewed	2-22
Zucchini-pineapple	2-22
Fruit salsas	2-23
Spicy cranberry salsa	2-23
Mango salsa	2-24
Peach salsa	2-24
Peach apple salsa	2-25
Pie fillings	2-25
Apple pie filling	2-26
Blueberry pie filling	2-27
Cherry pie filling	2-27
Festive mincemeat	2-28
Green tomato pie filling	2-29
Peach pie filling	2-30
Process times for some acid foods in a dial-gauge pressure canner	2-31
Process times for some acid foods in a weighted-gauge pressure canner	2-32

Guide 3. Selecting, Preparing, and Canning Tomatoes and Tomato Products.3-3

General	3-5
Tomato juice	3-5
Tomato and vegetable juice blend	3-6
Tomatoes—crushed	3-7
Standard tomato sauce	3-8
Tomatoes—whole or halved (packed in water)	3-9
Tomatoes—whole or halved (packed in tomato juice)	3-10
Tomatoes—whole or halved (packed raw without added liquid)	3-11
Tomatoes with okra or zucchini	3-12
Tomatillos	3-13
Spaghetti sauce without meat	3-13
Spaghetti sauce with meat	3-14
Mexican tomato sauce	3-15
Easy hot sauce	3-16
Cayenne pepper sauce	3-17

Tomato ketchup	3-17
Country western ketchup	3-18
Blender ketchup	3-18
Salsa recipes	3-19
Selection and preparation of ingredients	3-19
Chile salsa (hot tomato-pepper sauce)	3-21
Chile salsa II	3-22
Tomatillo green salsa	3-22
Tomato salsa using paste tomatoes	3-23
Tomato salsa using slicing tomatoes	3-24
Tomato/green chile salsa	3-24
Tomato/tomato paste salsa	3-25
Tomato taco sauce	3-26

Guide 4.

Selecting, Preparing, and Canning Vegetables and Vegetable Products 4-3

Asparagus—spears or pieces	4-5
Beans or peas—shelled, dried	4-5
Beans, baked	4-6
Beans, dry, with tomato or molasses sauce	4-6
Beans, fresh lima—shelled	4-7
Beans, snap and Italian—pieces	4-8
Beets—whole, cubed, or sliced	4-9
Carrots—sliced or diced	4-10
Corn—cream style	4-10
Corn—whole kernel	4-11
Mixed vegetables	4-12
Mushrooms—whole or sliced	4-13
Okra	4-14
Peas, green or English—shelled	4-14
Peppers	4-15
Potatoes, sweet—pieces or whole	4-16
Potatoes, white—cubed or whole	4-17
Pumpkins and winter squash—cubed	4-18
Soups	4-18
Spinach and other greens	4-19
Squash, winter—cubed	4-20
Succotash	4-20

Guide 5. Preparing and Canning Poultry, Red Meats, and Seafoods.....5-3

Chicken or rabbit	5-5
Ground or chopped meat	5-6
Strips, cubes, or chunks of meat	5-6
Meat stock (broth)	5-7
Chile con carne	5-8
Clams	5-9
King and Dungeness crab meat	5-9
Fish in pint jars	5-10

Fish in quart jars	5-11
Oysters	5-12
Smoked fish	5-13
Tuna	5-14

Guide 6. Preparing and Canning Fermented Foods and Pickled Vegetables... 6-3

Selection of Fresh Cucumbers	6-5
Low-temperature pasteurization treatment	6-5
Suitable containers, covers, and weights for fermenting food	6-6
Salts used in pickling	6-7
Fermented foods	6-7
Dill pickles	6-7
Sauerkraut	6-8
Cucumber Pickles	6-9
Bread-and-butter pickles	6-9
Quick fresh-pack dill pickles	6-10
Sweet gherkin pickles	6-10
14-day sweet pickles	6-11
Quick sweet pickles	6-12
Other Vegetable Pickles	6-13
Pickled asparagus	6-13
Pickled dilled beans	6-14
Pickled three-bean salad	6-14
Pickled beets	6-15
Pickled carrots	6-16
Pickled baby carrots	6-16
Pickled cauliflower or Brussels sprouts	6-17
Chayote and jicama slaw	6-17
Bread-and-butter pickled jicama	6-18
Marinated whole mushrooms	6-18
Pickled dilled okra	6-19
Pickled pearl onions	6-20
Marinated peppers	6-20
Pickled bell peppers	6-21
Pickled hot peppers	6-22
Pickled jalapeño pepper rings	6-23
Pickled yellow pepper rings	6-24
Pickled sweet green tomatoes	6-24
Pickled mixed vegetables	6-25
Pickled bread-and-butter zucchini	6-26
Pickled Vegetable Relishes	6-26
Chayote and pear relish	6-26
Piccalilli	6-27
Pickle relish	6-28
Pickled corn relish	6-28
Pickled green tomato relish	6-29
Pickled horseradish sauce	6-30
Pickled pepper-onion relish	6-30

Spicy jicama relish	6-30
Tangy tomatillo relish	6-31
Pickled Foods for Special Diets	6-32
No sugar added pickled beets	6-32
No sugar added sweet pickle cucumber slices	6-33
Reduced-sodium sliced dill pickles	6-34
Reduced-sodium sliced sweet pickles	6-34
Guide 7. Preparing and Canning Jams and Jellies	7-3
Making jelly without added pectin	7-5
Extracting juices and making jelly	7-5
Making jam without added pectin	7-6
Making jams and jellies with added pectin	7-7
Pear-apple jam	7-8
Strawberry-rhubarb jelly	7-8
Blueberry-spice jam	7-9
Grape-plum jelly	7-10
Golden pepper jelly	7-10
Making reduced-sugar fruit spreads	7-11
Peach-pineapple spread	7-11
Refrigerated apple spread (made with gelatin)	7-12
Refrigerated grape spread (made with gelatin)	7-12
Remaking soft jellies	7-13