



Food Preservation Update 2007

April 5, 2007

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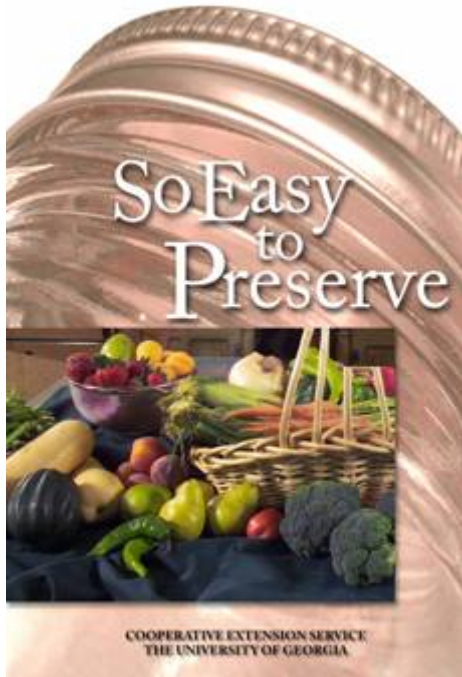
Objectives

Extension Educators will:

1. Increase knowledge and understanding of ingredients in the marketplace used in home food preservation.
2. Increase knowledge of home practices in food preservation in the U.S.
3. Increase knowledge and understanding of appropriate resources for home food preservation recommendations.



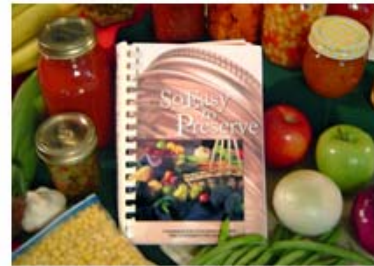
So Easy to Preserve



**5th Edition
Book is Out!**

Ordering info:

www.soeasytopreserve.com



Book Now Available

The University of Georgia Cooperative Extension is pleased to offer a new **5th edition** of its popular book, *So Easy To Preserve*. This beautiful book contains the latest U.S. Department of Agriculture recommendations for safe food preservation. *So Easy To Preserve* is now a 375-page book with over 185 tested recipes, along with step by step instructions and in-depth information for both the new and experienced food preserver.

Chapters include *Preserving Food, Canning, Pickled Products, Jellied Fruit Products, Freezing and Drying*. This 5th edition has 35 new tested recipes and processes, in addition to a new section with recommended procedures for home-canned salsas. [More >>](#)



DVD

The University of Georgia Cooperative Extension is pleased to offer a new *So Easy to Preserve* video series. Eight shows (20 to 35 minutes each) contain the most up-to-date recommendations for preserving fresh foods and great taste in your home. Features include home canning of tomatoes, vegetables and fruits; freezing fruits and vegetables; drying fruits and vegetables; pickling; making

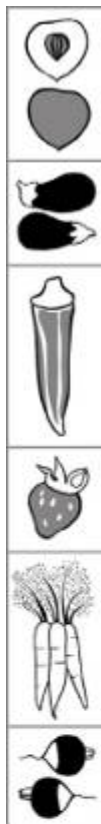
jams and jellies; and, a show devoted to the canned specialties of hot chile salsa, mango chutney and spicy jicama relish. The methods demonstrated continue our tradition of teaching USDA-recommended practices for food safety as well as high quality finished products. This series was produced with the assistance of CSREES-USDA under the National Center for Home Food Processing and Preservation project. [More >>](#)

- ◆ Order DVD
- ◆ Order Book
- ◆ How to Preserve Food

Featured DVD Specialties Only Found Here

- Southwestern Corn Saute
- Athalie's Granola
- Spicy Tomato Vegetable Soup

Production Team and Partners



So Easy To Preserve

5th Edition

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Order your copy today for only \$18.00 per book.

(Price may increase at any time if printing and/or shipping costs increase; current ordering information will be available at www.soeasytopreserve.com)

I am ordering _____ copies of the **So Easy To Preserve** book at a cost of \$18.00 per book, which includes standard shipping to the U.S.*

If 12 or more copies are ordered at the same time, the cost is \$15.00 per book, which includes standard shipping to one address in the U.S.* I am ordering _____ copies at this price.

*For International orders, additional shipping will be charged; please contact the business office for costs.

(number of copies X price per book) **TOTAL COST** _____

All orders for, and inquiries about purchasing, the **So Easy To Preserve** book should be addressed to:

Agriculture Business Office
215 Conner Hall
Cooperative Extension Service
The University of Georgia
Athens, GA 30602-7506

For more information:
Phone: (706) 542-8575
Email: ccspub@uga.edu
Fax: (706) 583-0236

If paying by check, money order or purchase order, make payable to **University of Georgia** and include with this form.

SHIPPING ADDRESS:

Name: _____

Title: _____

Organization: _____

Street

Address: _____

(These are shipped UPS, no PO Boxes can be used)

City: _____

State: _____ Zip: _____

Phone number: (Area code) _____

COMPLETE IF PAYING BY CREDIT CARD:

Name on credit card: _____

Credit Card Number: _____

Expiration Date: _____

Billing Address: check if same as shipping street address

or enter below: _____

City: _____

State: _____ Zip: _____

State: _____ Zip: _____



So Easy to Preserve

5th Edition Changes

- ▶ Changes in boiling water and pressure canning steps.
- ▶ Added in all new NCHFP products – pickled products, salsas, lemon curd, mango leather.
- ▶ Added canning of tomatillos, Asian pears.
- ▶ Added fish in quart jars and smoked fish to canning.
- ▶ Added in tomato-pepper salsas from Washington State University.



5th edition SETP

- ▶ **39 new procedures:**
 - Canning Fruits – 3
 - Canning Tomato Products – 3
 - Canning Salsas – **NEW SECTION**
 - Vegetable Salsas – 7
 - Fruit Salsas – 4
 - Canning Seafood – 2
 - Vegetable Pickled Products – 10
 - Fruit Pickles – 1
 - Relishes – 4
 - No-Sugar Pickled Products – 3
 - Jelly – 1
 - Drying – 1





5th edition SETP

▶ **New step in BWC:**

- Wait 5 minutes after removing lid, before removing jars.

▶ **New step in PC:**

- Wait 10 minutes before removing lid, after removing weight.

Reasons: To insure success in sealing of jars and preventing leakage when jars are removed from the canner to cool.



5th edition SETP

- ▶ **Directions for de-toxifying unsealed, improperly canned low acid food have been updated.**
 - **Most changes have to do with cleaning up the work area.**
 - **See pages 33-34.**



5th edition SETP

- ▶ A **CAUTION** statement has been added to directions for Fruit Puree:
 - These recommendations should not be used with figs, tomatoes, cantaloupe and other melons, papaya, ripe mango or coconut.
 - **Reason:** Fruits not acid enough to be used with this procedure.



5th edition SETP

Canned Foods

- ▶ **Barbecue Sauce** has increased amount of vinegar. (p. 60)
- ▶ **Spaghetti Sauce with Meat** now expands the list of ground meat to include beef, sausage, venison or turkey. (p. 63)
- ▶ Preparation for **Chicken Stock (Broth)** (p. 97) has been revised to emphasize this is a process for broth with only little bits of meat.
 - The pack for pieces of chicken with broth to cover is to be processed as Poultry.



5th edition SETP

Canned Fish/Seafood

- Pay special attention to different canner management instructions for all three of these:
- ▶ *Fish in Pint Jars* has been updated and renamed. (p. 93)
- ▶ *Fish in Quart Jars* has been added.
- ▶ Directions for *Smoked Fish* have been re-worded.
- ▶ New *Crab* warning: that the procedure results in crab meat with a distinctly acidic flavor and freezing is the preferred preservation method at this time.



5th edition SETP

Freezing

- ▶ Vacuum packaging acknowledged as good option; other wording changes in packaging options.
- ▶ Blanching times revised, to be consistent with USDA information.



5th edition SETP

Drying

- ▶ ***Drying Herbs*** procedures revised.
- ▶ ***Packaging and Storing Dried Foods*** discussion revised.



USDA

Complete Guide to Home Canning

- ▶ Submitted to USDA last June.
- ▶ Hope to release *very soon*.



www.homefoodpreservation.com

NCHFP Website Changes



NCHFP Burning Issues

- ▶ **Smooth top ranges**
- ▶ **Pressure canners vs. pressure cookers**
<http://www.uga.edu/nchfp/publications/nchfp/factsheets.html>
- ▶ **In the works:**
 - **Canning soups**
 - **Steam canners (not)**
 - **Canning chocolate sauces (not)**



New NCHFP Seasonal Tips

▶ Preserving a Harvest of Tomatillos

- Seasonal Tip, Summer.

- http://www.uga.edu/nchfp/tips/summer/preserving_tomatillos.html

▶ Sorting Out Tomato Canning Directions

- Seasonal Tip, Summer.

- http://www.uga.edu/nchfp/tips/summer/canned_tomato_types.html



National Center Website

Plans for the coming year:

- ▶ Add more modules to our on-line self-study.
- ▶ How-to tutorials/slides, hopefully some video eventually.
- ▶ More FAQs.
- ▶ Reports from our latest survey, literature reviews and lab studies.



Problems Needing Attention

- ▶ **Getting people to use Pressure Canners for low acid foods.**
 - **Avoiding oven canning or other creative methods.**
- ▶ **Helping people understand we cannot adjust our low-acid canning processes based on 10 pounds pressure for smaller pressure cookers.**
- ▶ **Avoiding “open kettle” or just hot-filling of jars to replace canning processes.**



Botulism does Occur

- ▶ **Botulism still occurs in the U.S. from home processed foods, although some may think it rare.**

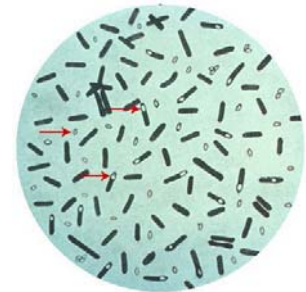
- ▶ ***Foodborne Botulism in the United States, 1990–2000.***
 - **Jeremy Sobel, Nicole Tucker, Alana Sulka, Joseph McLaughlin, and Susan Maslanka.**
 - ***Emerging Infectious Diseases* • www.cdc.gov/eid • Vol. 10, No. 9, September 2004. p. 1606-1611.**



Foodborne Botulism Incidence

Summary of US, 1990-2000

- ▶ 263 cases from 160 events.
- ▶ Avg cases per event = 1, range = 1 to 17.
- ▶ 103 (39%) of cases 58 events were in Alaska.
- ▶ Toxin Type A caused 51% of the cases;
- ▶ Type E caused 90% of the Alaska cases.
- ▶ A particular food was implicated in 126 (79%) of the events.

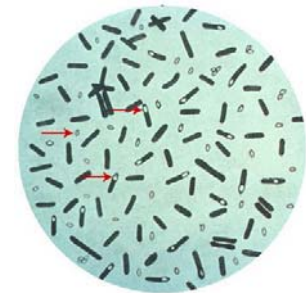




Foodborne Botulism Incidence

Summary of US, 1990-2000

- ▶ **All Alaska cases were attributable to traditional Alaska Native foods.**
 - A lot of foods fermented at room temperature and eaten without cooking.
 - 28 cases were from fermented fish
 - 21 cases fermented sea mammals
 - 20 cases seal oil
 - 18 cases fish eggs



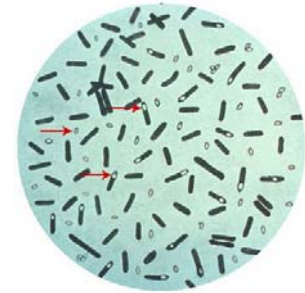


Foodborne Botulism Incidence

Summary of US, 1990-2000

- ▶ **In the lower 49 states (not Alaska),**
 - A noncommercial food item was the cause in 91% of the events, most commonly home canned vegetables (44%).
 - 14 cases home canned asparagus.
 - 4 home canned tuna.
 - 4 home canned peppers.
 - 6 home canned beets.
 - Mushrooms, olives, garlic in oil.

- ▶ **Two restaurant outbreaks affected 25 people.**





Foodborne Botulism

Home Processed Food Examples

- ▶ **Home fermented tofu, California, Dec. 2006.**
 - Tofu (low-acid food) was boiled (removed oxygen), dried, cut into cubes, put in a bowl, covered with plastic wrap & left at room temperature for 10-15 days (lack of refrigeration).
 - It was then transferred to glass jars with spices, wine, oil & broth, and marinated at room temperature for 2-3 more days; then stored and eaten at room temperature.



Foodborne Botulism

Home Processed Food Examples

- ▶ Home canned bamboo shoots, Thailand, March 2006.
 - Home-canned bamboo shoots with possible lack of adequate canning temperatures, lack of proper acidification and inadequate cooking.
 - ***Interesting editorial note:*** In 1998, a smaller outbreak of botulism assoc. with home-canned bamboo reported in the same Thai province.
 - Recommendations for home-canned food production were disseminated widely to all provinces.
 - However, this recurrence 8 years later indicates the importance of long-term follow up and continuous inspection and assurance of the quality of food canning.



Foodborne Botulism

Home Processed Food Examples

- ▶ **Home pickled eggs, Illinois, 1997.**
 - Whole hard-boiled eggs were peeled, pierced with toothpicks, combined with beets, hot peppers & vinegar, in a glass jar with a metal screw-type lid. This was stored at room temperature & occasionally exposed to sunlight.
 - Type B toxin was detected; 1000 times greater in the egg yolks than in the pickling liquid.
 - Although the pH of the pickling liquid was 3.5, the pH of the egg yolks was not determined (egg yolk pH is usually 6.8).
 - Pricking cooked eggs may have introduced spores, yolk may have remained anaerobic, and inadequately acidified may have allowed spore growth. Keeping the jar in sunlight & lack of refrigeration may have provided temperatures suitable for cell growth & toxin production.



Foodborne Botulism

Lessons from Commercial Foods

Olives, 2007 – No illnesses reported, but recalls issued.

- ▶ **Charlie Brown di Rutigliano & Figli S.r.l, in Italy.**
 - **March 2007.**
 - **Cerignola, Nocellara and Castelvetro Olives.**
 - **pH above 4.6 and concern over possible contamination with *C. botulinum*.**

- ▶ **Flora Foods of Pompano Beach, Florida.**
 - **March 2007.**
 - **Cerignola Olives.**
 - **Product was underprocessed.**



Commercial Recalls

- ▶ **On those for botulism from FDA, warning is given:**

Consumers are warned not to use the product even if it does not look or smell spoiled.



Foodborne Botulism

Olives, continued --

- ▶ Marcella's Garden brand Olives, imported from Italy, distributed in Canada.
 - March 2007.
 - Cerignola, Baresana, Calabrese, Jumbo Stuffed, Kalamata, Nocellara olives.
 - pH above 4.6 and concern over possible contamination with *C. botulinum*.

- ▶ DAL RACCOLTO brand Olives, sold by Cibo Specialty Foods, a division of Colavita USA, L.L.C. of Linden, N.J.
 - March 2007.
 - Cerignola, Baresana, Calabrese, Italian Colossal, Nocellara olives.
 - pH and water activity levels that did not provide botulism control.



Foodborne Botulism



Lessons from Commercial Foods

- ▶ Carrot juice, Bolthouse Farms, California.
 - September 2006.
 - 3 cases in GA, followed by 1 in Florida.
 - Juice was flash pasteurized -- not adequate to kill botulinum spores, and toxin may be produced if the product is not adequately refrigerated.
 - Inadequate refrigeration by the consumers originally suspected.
 - Were not large numbers to be a distribution problem.
 - Other cases in Canada reported by CBS indicated four types of organic carrot juices, and that the consumers had kept the product refrigerated.



Foodborne Botulism

Lessons from Commercial Foods



▶ Carrot Juice, cont.

- ▶ Last word we have in U.S. reports:
- ▶ In the U.S., FDA looking into the labeling issues surrounding adequate display of “keep refrigerated” warnings.
- ▶ FDA Recall Notice: Consumers should look for the words "Keep Refrigerated" or "Refrigerate After Opening" on juice labels to know whether the product should be refrigerated.
- ▶ Bolthouse Farms saying it was failure of consumers to refrigerate in the U.S. cases.



Foodborne Botulism

Lessons from Commercial Foods

- ▶ **Baby food, Earth's Best Organic 2 Apple Peach Barley Wholesome Breakfast.**
 - February 2007.
 - Possible contamination with *C. botulinum*.
 - pH too high to control for botulism given the way it was processed.





▶ **Back to Home Food Preservation Updates**



Marketplace Updates

- ▶ New “Ball” consumer website from Jarden Home Brands, Inc.:

<http://www.freshpreserving.com/>





Welcome to the New Home for **Fresh Preserving!**

Our refreshed Homecanning.com is your freshpreserving source. **NOW MORE RECIPES** take you from fresh food preparation to easy preservation anytime of the year.



Recipe of the Month

Mango Raspberry Jam



Berry season is here! It's the perfect time to whip up a fresh batch of **Mango Raspberry Jam** everyone will love.

[View Entire Recipe](#)

The Ball® Freezer Jam Contest

The b-b-biggest event s-s-since the i-i-ice age!



[View contest](#)

Taste of Home Cooking School

Taste of Home in Your Town!

See a live demonstration with some of the fastest and freshest preserving techniques. The Ball® brand is teaming up with *Taste of Home Cooking School* for this fun-filled and highly entertaining culinary tour.

[Find a Cooking School near you](#)

Receive a **FREE SAMPLE** of Ball® Simple Creations® Mild Fiesta Salsa Mix.

[Click here for a FREE sample](#)



Newer Jars

- ▶ **Ball® Collection Elite™ Platinum Jar**
 - Last year -Wide mouth 8 oz (half-pint) – “flattened”.
 - Platinum color lids; available separately.
 - Use same half-pint process times.





Newer Jars

- ▶ **Ball® Collection Elite™ Platinum Jar now available in Pint Size**
- ▶ **Wide mouth 16 oz.**





Newer Jars

- ▶ **Ball® Freezer “Jars”**
 - Plastic.
 - 5 (8-oz) jars or 4 (16 oz)
 - Twist-on lids
 - Stack in freezer





New Packaging for Lids





Other Jars

- ▶ Ball® Creative Containers™
- ▶ **STORAGE ONLY**
 - Wire bales, rubber rings
 - 1, 2 and 4 gallon sizes

- 1 gallon with spigot





New Ingredients

- ▶ **Seasoning mixes**
 - Salsas (2), tomato sauce
 - Pickle mixes (2)





Newer Ingredients

- ▶ **Ball[®] Simple Creations[®] Pickle Crisp[®] powder.**
- ▶ **New appearance and directions this year.**
 - Calcium chloride.
 - Now suggest adding it to jars between solids and liquids when filling jars.
 - OR using as a presoak.
 - Overnight, no rinsing.



See insert:

<http://www.freshpreserving.com/filebin/41672PickleCrispInsert.pdf>



New Ingredients

► Pectins

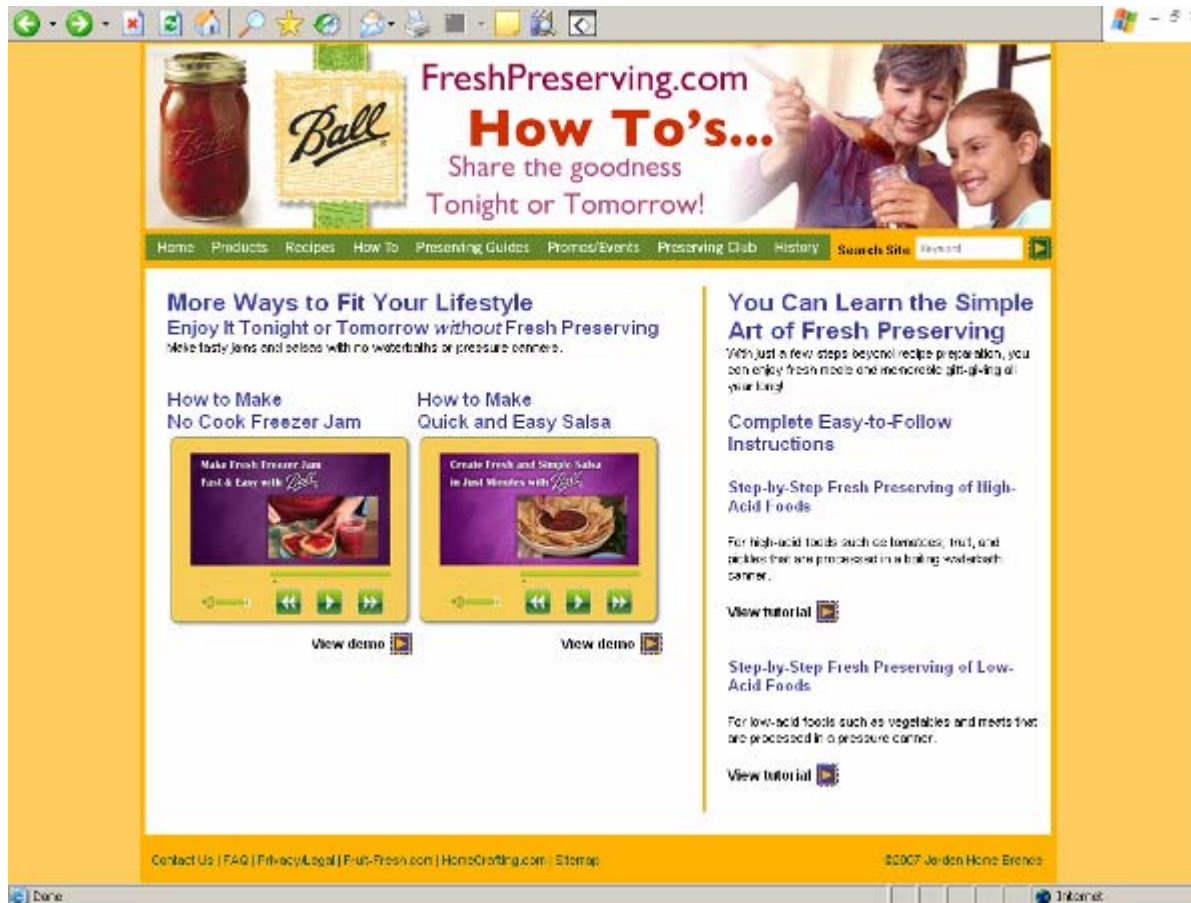
- Freezer jam “pouch”
 - Any fruit, Splenda or sugar
- Powdered and liquid “regular”
- Powdered “no sugar needed”





New features

- ▶ Under “How To”, there are some method videos.



▶ http://www.freshpreserving.com/pages/preserve_fresh_preserving_home_canning_/33.php



New features

▶ Flash tutorials

- Step by step high acid canning
- Step by step low acid canning
- Step by step freezing
- Look under “How To”

▶ Problem Solving

- Soft Spreads Problem Solver
- Pickle Problems
- Etc.
- http://www.freshpreserving.com/pages/problem_solving/39.php



Preserving Guides

- ▶ http://www.freshpreserving.com/pages/preserving_guides/5.php
- ▶ Produce Purchase Guide
- ▶ Weights and Measures Conversions
- ▶ Harvest Guide



Recipes

▶ http://www.freshpreserving.com/pages/all_recipes/26.php

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Fresh Preserving Recipes!
Easy meals to enjoy now or later
with *Ball* recipes.







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Ball® brand recipes help you make fresh, easy meals and snacks anytime! Discover how adding a simple step can take you from fresh food preparation to easy preservation.

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 QUICK PREP Enjoy now or refrigerate up to 3 weeks Select ...	 FREEZE Up to 1 year Select ...	 FRESH PRESERVE Store up to 1 year Select ...
 DEHYDRATE Store up to 1 year Select ...	 ORGANIC Coming Soon Select ...	 GIFTS IN A JAR Store up to 1 year Select ...

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New Book

▶ Ball Complete Book of Home Preserving

- Came out in 2006
- 400 recipes
- \$19.95 list price





Other Industry Websites

- ▶ www.surejell.com – great for jam and jelly recipes
 - Kraft Foods
- ▶ www.mrswages.com – quite a few recipes
 - Mrs. Wages
- ▶ www.canningusa.com ?????? – Not sure yet
 - ??????
 - Supply store
 - Videos
 - Technical guide
 - Lots of photos
 - Podcasts
 - Jars and lids in videos not always what we recommend
 - Sell equipment not all recommended for home canning.



Touch the Soil Magazine

- ▶ Magazine about farm/food sustainability.
- ▶ Idaho-based; bi-monthly.
- ▶ Editor is very pro-home canning and preservation.
 - I've written two columns for him so far.
 - He added a message about supporting Cooperative Extension.
- ▶ www.touchthesoil.com





Additional Handouts

- ▶ **Insert for Ball[®] Simple Creations[®] Pickle Crisp[®].**
- ▶ **Foodborne Botulism in the United States, 1990-2000.**
- ▶ **Select Botulism Reports.**