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Addendum to Home Canning: Fruits, Vegetables, Pickles, Jams and Jellies Michigan State University Extension Service
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Addendum to Extension Bulletin E-1555

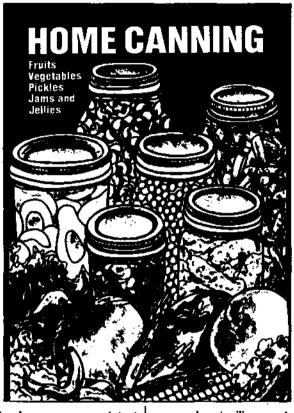
HOME CANNING

Since the 1982 printing of Extension Bulletin E-1555, Home Canning, and the March 1985 addendum to E-1555, many changes have been made regarding food preservation information, techniques and procedures. These changes reflect research by the U.S. Department of Agriculture for producing a safe, high quality home preserved product. This addendum replaces the March 1985 Addendum to Extension Bulletin E-1555.

Pickle Procedures on pages 16-18 of Bulletin E-1555 are NO LONGER RECOMMENDED. Refer to Bulletin E-2134.

Cucumber Pickles, and contact the home economist at your county Cooperative Extension Service office for more information on pickling. Tomato procedures on pages 9-11, 14, and 15 of Bulletin E-1555 are NO LONGER RECOMMENDED. Refer to this addendum for tomato canning procedures. Information in the tables on pages 10 and 14 of E-1555 is NO LONGER RECOMMENDED. Refer to the tables in this addendum for correct procedures.

Using 15 pounds pressure for canning vegetables is no longer recommended at altitudes of 1,000 feet or less. Contact the home economist at your county Cooperative Extension. Service office for canning procedures at altitudes greater than 1,000 feet. Please note the updated recommendations that follow and keep this addendum with E–1555.



JAR STERILIZATION AND PARAFFIN USE

Sterilizing Canning Jars for foods processed less than 10 minutes

Jars to be filled with food and processed in a boiling water canner for less than 10 minutes must be sterilized. This is done by covering jars with hot water and boiling jars and water for 10 minutes before filling the containers. Leave the sterilized jars in the hot water until you are ready to fill the containers. When sterilizing jars at elevations greater than 1,000 feet, add 1 minute to the sterilization process for each 1,000 feet. For

example, sterilize containers for 11 minutes at elevations of 1,001-2,000 feet.

Jar sterilizing applies when canning grape juice and some pickles. In addition, sterilize all canning jars when making jellied fruit products (jellies and jams).

Sealing and Processing Jellied Fruit Products

Using paraffin to seal jellied fruit products is NO LONGER RECOMMENDED. Process all jellied products in a boiling water canner for at least 5 minutes to prevent mold growth. Jellied products must be processed longer than 5 minutes at altitudes greater than 1,000 feet. Reduced sugar jellied products require more than 5 minutes of processing time. Be sure to follow reduced sugar jellied product procedures accurately. Because most jellied products are processed for under 10 minutes, these jars need to be sterilized for at

least 10 minutes and then kept hot until filled. It is important to work quickly, pouring hot jelly into hot jars.

Foods processed for ten minutes or more (or pressure heat processed)

Jars to be filled with food and processed in a boiling water canner for 10 minutes or more do not require sterilizing. Jars processed in a pressure canner are adequately sterilized during processing and do not require sterilizing.

TOMATOES

Tomato Acidification

Tomatoes are usually considered an acid food. However, to ensure adequate acidity in whole, halved or crushed tomatoes, tomatoes must be acidified with lemon juice or citric acid. To acidify, add 2 tablespoons of bottled lemon juice or 1/2 teaspoon of citric acid per quart of tomatoes, tomato sauce, and tomato juice. For pints, use 1 tablespoon bottled lemon juice or 1/4 teaspoon citric acid. Citric acid and lemon juice can be added directly to the jars before filling with product. If desired, sugar may be added to offset acid taste. Properly acidified tomatoes can be safely processed in a boiling water canner.

TOMATOES—CRUSHED

(no added liquid)

Crushed tomatoes are ideally suited for use in soups, stews, and casseroles. This recipe is similar to that formerly referred to as "Tomatoes".

Procedure: Wash tomatoes and dip in boiling water for 30 to 60 seconds or until skins split. Dip in cold water, slip off skins, and remove cores. Trim off any bruised or discolored portions and quarter. Heat 1/6 of the quarters quickly in a large kettle, crushing them with a wooden mallot or spoon as they are added to the kettle. Continue heating the tomatoes, while stirring.

Once the crushed tomatoes are boiling, gradually add remaining quartered tomatoes, stirring constantly. These tomatoes do not need to be crushed, but will soften while the mixture is heated and stirred. After adding all tomatoes to the kettle, boil gently for five minutes. Add

bottled lemon juice (2 tablespoons per quart) or citric acid (1/2 teaspoon per quart) to jars. If desired, 1 teaspoon of salt per quart of tomatoes may be added to the jars for flavor.

Fill jars immediately with hot, crushed tomatoes, leaving 1/2 inch headspace. Adjust lids, and process in a boiling water canner (pints = 35 minutes, quarts = 45 minutes). If you live at an elevation of 1,001-3,000 feet, process crushed tomatoes in a boiling water canner (pints = 40 minutes, quarts = 50 minutes).

TOMATOES—WHOLE OR HALVED

(packed in water)

Procedure: Wash tomatoes. Dip tomatoes in boiling water for 30 to 60 seconds or until skins split. Dip in cold water, slip off skins and remove cores. Leave whole or halve. Add bottled lemon juice (2 tablespoons per quart) or citric acid (1/2 teaspoon per quart) to jars. If desired, 1 teaspoon of salt per quart of tomatoes may be added to the jars for flavor.

Raw Pack—Fill jars with raw peeled tomatoes (whole or halved). Cover with fresh, boiling water, leaving 1/2 inch headspace. Adjust lids and process in a boiling water canner (pints = 40 minutes, quarts = 45 minutes). If you live at an elevation of 1,001-3,000 feet, process raw pack tomatoes in a boiling water canner (pints = 45 minutes, quarts = 50 minutes).

Hot Pack—Add enough water to cover the tomatoes and boil tomatoes gently for 5 minutes. Fill jars with hot tomatoes. Cover tomatoes with hot cooking liquid and leave 1/2 inch headspace. Adjust lids and process in a boiling water canner (pints = 40 minutes, quarts = 45 minutes). If you live at an elevation of 1,001-3000 feet, process hot pack tomatoes in a boiling water canner (pints = 45 minutes, quarts = 50 minutes).

TOMATOES—WHOLE OR HALVED (packed in tomato juice)

Procedure: Wash tomatoes. Dip in boiling water for 30 to 60 seconds or until skins split. Then dip in cold water, slip off skins and remove cores. Leave whole or halve. Add bottled lemon juice (2 tablespoons per quart) or citric

Continued on page 4

Update On Processing Times

Processing times at altitudes of up to 1,000 ft (Minutes)*

Based on research, the USDA has revised the processing time for many home canned foods. Updated processing times for *Home Canning* Bulletin E–1555 are listed below. Bold numbers are new processing times. Follow the processing times for foods (except pickles, jams and jellies) in Bulletin E–1555 which are not listed in the following tables. Leave one inch headspace for all pressure canned products.

| | Boiling-water canner | | Weighted-gauge pressure canner at 5 pounds pressure | |
|---|----------------------|--------|---|--------|
| Fruit | Pints | Quarts | Pints | Quarts |
| Apples (p. 8) | 20 | 20 | 8 | 8 |
| Applesauce (p. 8) | 15 | 20 | 8 | 10 |
| Berries (p. 8) raw pack | 15 | 20 | 8 | 10 |
| hot pack | 15 | 15 | 8 | 8 |
| Cherries (p. 8) raw pack | 25 | 25 | 10 | 10 |
| hot pack | 15 | 20 | 8 | 10 |
| Grape Juice (p. 9) | 5 | 5 | ** | ** |
| Pears (p. 9) raw pack | ** | ** | ** | ** |
| Rhubarb | 15 | 15 | 8 | 8 |
| Tomatoes [†] *** crushed (raw pack) | ## | AA | ** | ** |
| crushed (hot pack) | 35 | 45 | 20 | 20 |
| whole or halved, in water | 40 | 45 | 15 | 15 |
| whole or halved, in juice | 85 | 85 | 40 | 40 |
| whole or halved, raw without added liquid | 85 | 85 | 40 | 40 |
| Tomato juice *** (p. 10) 35 | | 40 | 20 | 20 |
| Tomato sauce *** (p. 11) 35 | | 40 | 20 | 20 |

Weighted-gauge pressure canner at 10 pounds pressure

| Vegetables | cannot at 10 pourtes pressure | | |
|--|-------------------------------|--------|--|
| | Pints | Quarts | |
| Asparagus, (p. 11) hot or raw | 30 | 40 | |
| Mushrooms (p. 13) half-pints (45 minutes) | 45 | ** | |
| White Potatoes, whole (p. 13) | 35 | 40 | |
| Squash, summer (p. 14) | 44 | ** | |
| Tomatoes, stewed (p. 14) | ** | ** | |

^{*} If canning at an altitude over 1,000 feet, check with your county Extension office.

†See procedures on pages 2 and 4 of this addendum.

Processing times at altitudes of up to 2,000 ft (Minutes)

Based on research, the USDA has revised the processing time for many home canned foods. Updated processing times for *Home Canning* Bulletin E-1555 are listed below. **Bold** numbers are new processing times. Follow the processing times for foods (except pickles, jams and jellies) in Bulletin E-1555 which are not listed in the following tables. Leave one inch headspace for all pressure canned products.

| Fruit | Dial-gauge pressure canner at 6 pounds pressure | |
|---------------------------|--|--------|
| | Pints | Quarts |
| Apples (p. 8) | 8 | 8 |
| Applesauce (p. 8) | 8 | 10 |
| Berries (p. 8) | · | |
| raw pack | 8 | 10 |
| hot pack | 8 | 8 |
| Cherries (p. 8) | | |
| raw pack | 10 | 10 |
| hot pack | 8 | 10 |
| Grape Juice (p. 9) | ** | ** |
| Pears (p. 9) | | |
| raw pack | ** | ** |
| Rhubarb | 8 | 8 |
| Tomatoes † *** | · | |
| crushed (raw pack) | ** | ** |
| crushed (hot pack) | 20 | 20 |
| whole or halved, in water | 15 | 15 |
| whole or halved, in juice | 40 | 40 |
| whole or halved, | | - |
| raw without added liquid | 40 | 40 |
| Tomato juice *** (p. 10) | 20 | 20 |
| Tomato sauce *** (p. 11) | 20 | 20 |
| | Dial-gauge canner at pressure | |

| Vegetables | Pints | Quarts | |
|--|-------|--------|--|
| Asparagus, (p. 11) hot or raw | 30 | 40 | |
| Mushrooms (p. 13) half-pints (45 minutes) | 45 | ** | |
| White Potatoes, whole (p. 13) | 35 | 40 | |
| Squash, summer (p. 14) | ** | ** | |

^{**} Not recommended.

Tomatoes, stewed (p. 14)

†See procedures on pages 2 and 4 of this addendum.

^{**} Not recommended.

^{***} All tomato products must be acidified prior to canning. See acidification directions on page 2 of this addendum.

^{***} All tomato products must be acidified prior to canning. See acidification directions on page 2 of this addendum.

acid (1/2 teaspoon per quart) to jars. If desired, 1 teaspoon of salt per quart of tomatoes may be added to the jars for flavor.

Raw pack—Heat commercial or home-made tomato juice in a saucepan. Fill jars with raw, peeled tomatoes. Cover tomatoes in the jars with hot tomato juice, leaving 1/2 inch headspace. Adjust lids and process in a boiling water canner (pints = 85 minutes, quarts = 85 minutes). If you live at an elevation of 1,001-3,000 feet, process raw pack tomatoes in a boiling water canner (pints = 90 minutes, quarts = 90 minutes).

Hot pack—Put tomatoes in a large saucepan and add enough tomato juice to completely cover tomatoes. Boil tomatoes and juice gently for 5 minutes. Fill jars with hot tomatoes. Add hot tomato juice to the jars to cover the tomatoes, leaving 1/2 inch headspace. Adjust lids and process in a boiling water canner (pints = 85 minutes, quarts = 85 minutes). If you live at an elevation of 1,001-

3,000 feet, process hot pack tomatoes in a boiling water canner (pints = 90 minutes, quarts = 90 minutes).

TOMATOES—WHOLE OR HALVED

(packed raw without added liquid)

Procedure: Wash tomatoes. Dip in boiling water for 30 to 60 seconds or until skins split. Dip in cold water. Slip off skins and remove cores. Leave whole or halve. Add bottled lemon juice (2 tablespoons per quart) or citric acid (1/2 teaspoon per quart) to the jars. If desired, 1 teaspoon of salt per quart of tomatoes may be added to the jars for flavor.

Fill jars with raw tomatoes. Press tomatoes in the jars until spaces between them fill with juice. Leave 1/2 inch headspace. Adjust lids and process in a boiling water canner (pints = 85 minutes, quarts = 85 minutes). If you live at an elevation 1,001-3,000 feet process raw pack tomatoes (pints = 90 minutes, quarts = 90 minutes).

or additional information on current food preservation procedures, contact the home economist in your county Cooperative Extension Service office.

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