FOOD PRESERVATION SERIES

Availability
Late June to November

Trim Loss
About 10 percent from outer skin and tops.

Yield
Quantities shown are without tops.

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Yield Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2½-3 pounds</td>
<td>2 pints frozen</td>
</tr>
<tr>
<td>2-3 pounds</td>
<td>1 quart canned</td>
</tr>
<tr>
<td>17½ pounds</td>
<td>Canner load of 7 quarts</td>
</tr>
<tr>
<td>11 pounds</td>
<td>Canner load of 9 pints</td>
</tr>
<tr>
<td>1 bushel (50 pounds)</td>
<td>32-40 pints frozen</td>
</tr>
<tr>
<td></td>
<td>17-25 quarts canned (average of 2½ pounds per quart)</td>
</tr>
</tbody>
</table>

Freezing

Prepare carrots: Select tender, young carrots. Remove tops, wash and peel. Leave small carrots whole. Cut others into ¼-inch cubes, thin slices or lengthwise strips.

Blanch: Water blanch small, whole carrots for 5 minutes, diced or sliced and lengthwise strips for 3 minutes in boiling water. Cool promptly in cold water and drain in a colander.

Canning

Pressure canning: Pressure canning is the ONLY safe method for canning carrots. Place jar rack, 2 inches of water and sealed jars in canner. Fasten lid and heat canner on high heat. After exhausting a steady stream of steam for 10 minutes, add weighted gauge or close petcock to pressurize the canner. Start timing when the desired pressure is reached.

When processing is complete, remove canner from heat. Air-cool canner until it is fully depressurized. Then slowly remove weighted gauge or open petcock, wait 2 more minutes, and unfasten and carefully remove canner lid.

Remove jars from canner with a jar lifter and place them on a towel or rack. DO NOT retighten screw bands. Air-cool jars 12 to 24 hours. Remove screw bands and check lid seals. If the center of the lid is indented, wash, dry, label and store jar in a clean, cool, dark, dry place.

If after 12 to 24 hours the lid is still unsealed, examine and replace jar if defective, use a new lid and a screw band, and REPROCESS as before. Dump out carrots and liquid into a pan, reheat until boiling, fill hot jars with carrots and liquid, leaving 1 inch headspace. Place NEW LIDS and screw bands on jars and process for the time recommended below. When jars have sealed and cooled, remove, wash and store screw bands separately.

Recommended Varieties
Gold Pack and Pioneer are long (8-10 inches) carrots that are excellent for fresh use and for canning and freezing. Danvers Half Long, Nantes and Royal Cored Chantenay are medium (6-8 inches) length carrots that are excellent for fresh use and for freezing and canning. Little Finger and Baby Finger Nantes are short (less than 4 inches) carrots that are excellent cooked and served whole.

Pack: Pack carrots into airtight freezer containers or bags leaving ½ inch headspace.

Alternatively, freeze individual carrots or carrot pieces on a cookie sheet or tray. Pack into freezer containers or bags and remove as much air as possible. Seal, label and freeze.

Freeze no more than 2 pounds of food per cubic foot of freezer capacity per day. A cubic foot will hold 7.4 gallons.
Carrots are best if consumed within a year and safe as long as lids remain vacuum sealed.

**Prepare carrots:** Select small carrots, preferably 1 to 1 1/2 inches in diameter. Larger carrots are often too fibrous. Slice or dice carrots.

**Raw Pack:** Wash jars. Wash, peel and rewash carrots. Slice or dice. Pack jars tightly with raw carrots, leaving 1 inch headspace. Add 1/2 teaspoon salt per pint, 1 teaspoon salt per quart, if desired. Remove air bubbles. Adjust lids and process.

**Hot pack:** Wash jars. Cover carrots with boiling water; bring to boil and simmer for 5 minutes. Pack hot jars, leaving 1 inch of headspace. Add 1 teaspoon of salt per quart, if desired. Remove air bubbles. Adjust lids and process.

**Recommended Process Times**

<table>
<thead>
<tr>
<th>Carrots in a Dial-Gauge Pressure Canner</th>
<th>Canner pressure (pounds pressure) at altitudes of 0-2,000 ft.</th>
<th>2,001-4,000 ft.</th>
<th>4,001-6,000 ft.</th>
<th>6,001-8,000 ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Style of pack</td>
<td>Jar size</td>
<td>Process time</td>
<td>0-2,000 ft.</td>
<td>2,001-4,000 ft.</td>
</tr>
<tr>
<td>Raw</td>
<td>Pints</td>
<td>25 min.</td>
<td>11 lb.</td>
<td>12 lb.</td>
</tr>
<tr>
<td>Raw</td>
<td>Quarts</td>
<td>30</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Hot</td>
<td>Pints</td>
<td>25</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Hot</td>
<td>Quarts</td>
<td>30</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

**Carrots in a Weighted-Gauge Pressure Canner**

<table>
<thead>
<tr>
<th>Style of pack</th>
<th>Jar size</th>
<th>Process time</th>
<th>0-1,000 ft.</th>
<th>Above 1,000 ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw</td>
<td>Pints</td>
<td>25 min.</td>
<td>10 lb.</td>
<td>15 lb.</td>
</tr>
<tr>
<td>Raw</td>
<td>Quarts</td>
<td>30</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
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**Fresh Microwave Carrot Coins (4 servings)**

1 pound carrots, sliced crosswise
1/4 cup water

Wash, trim and pare carrots. Cut into crosswise slices 1/2 inch thick. Combine carrots and water in a 1-quart casserole dish. Cover and set microwave at full power (HIGH, 600-650 watt oven) for 9 to 10 minutes or until tender, stirring once. Let stand covered 3 minutes. Drain and serve.

**Quick Carrot-Nut Bread (one 5 x 9-inch loaf)**

1/2 cups flour
1 1/2 teaspoons baking soda
1/4 teaspoon cinnamon
1/4 cup sugar
2 eggs, beaten
1 cup vegetable oil
1 teaspoon vanilla
1/2 cups grated carrots
1/2 cups pecans or walnuts, chopped

Mix flour, baking soda and cinnamon. Combine sugar, eggs, oil and vanilla. Stir into flour mixture. Blend in carrots and walnuts. Pour batter into a greased bread pan. Bake about 1 hour at 350 degrees F. Cool in pan 10 minutes, then turn out onto a rack for further cooling.

**Carrot Raisin Salad (4 servings)**

2 cups shredded raw carrots
1/2 cup raisins
1/2 cup salad dressing or mayonnaise
1 tablespoon lemon juice (optional)

Combine all ingredients and mix thoroughly. Chill and serve.

**Orange Glazed Carrots (6 servings)**

1/2 cup water
2 1/2 cups sliced carrots
1/2 cup unsweetened orange juice
1 tablespoon cornstarch
2 tablespoons margarine
1 orange, peeled and diced

Cook carrots in 1/2 cup water until barely tender. Drain cooking liquid into a measuring cup. Add orange juice. Add enough water to make 1 cup of liquid. Remove carrots from pan. Mix liquids and cornstarch in the pan. Cook over medium heat until thickened and clear, stirring constantly. Add margarine, carrots and orange pieces. Mix thoroughly and heat through.

**Prepared by Sandra L. Andrews, Ph.D., R.D., Extension Specialist, Department of Food Science and Human Nutrition, Michigan State University.**

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**This bulletin was originally prepared by Shirley Hamman, Allegan County Extension home economist, Kathleen Staskiewicz, Ottawa County Extension home economist, and Penny Ross, Extension Food and Nutrition Specialist, MSU.**