



UNIVERSITY of CALIFORNIA

# Agriculture & Natural Resources



COOPERATIVE EXTENSION • SOLANO COUNTY

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## USING A MAXIMUM REGISTERING THERMOMETER TO TEST YOUR PRESSURE CANNER GAUGE

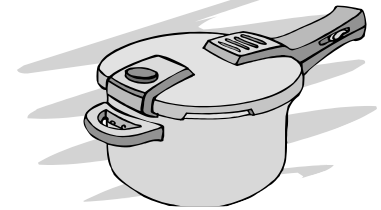
A maximum registering thermometer can be used to quickly, simply, and conveniently test the accuracy of your steam pressure canner gauge. These thermometers operate on the same principle as thermometers designed to measure fevers: the highest temperature attained is recorded, and doesn't recede until the thermometer is shaken down. A few cautionary notes: make sure the thermometer you purchase records the temperature range in which you're interested. A range of 100-300 °F is recommended.

To shake down, grasp the thermometer firmly below the cap on the upper end. Shake in an arc, until the mercury is below the temperature to be measured. The thermometer is glass enclosed in a heat resistant plastic, and is quite fragile.

Allow the thermometer to cool to room temperature before taking a reading. Readings should be taken in the upright position, since a vacuum exists above the mercury column, and the column will move if held horizontally.

### To test your gauge:

- Fill your canner with 2 inches of water. Make sure a rack is in place to prevent the jar from coming in contact with the bottom of the canner.
- Place the thermometer upright in an empty pint jar. Place the jar on the rack and heat water to a boil.
- Secure the lid of your canner according to your manufacturer's instructions. Allow a full stream of steam to vent from the petcock for 10 minutes before putting the pressure regulator in place.
- Watching your gauge carefully, bring the pressure up to the desired level. Hold at the level to be tested for 5 minutes, being very careful not to let the pressure exceed the desired level at any time.
- Turn off heat. Allow your canner to cool 5 minutes after pressure has returned to zero, as indicated by your gauge. Open the lid carefully, lifting the side away from you first to allow steam to escape, and to protect yourself from the heat.
- Remove the thermometer from the canner. Allow to cool to room temperature before taking a reading. If you're testing 5 psi, the thermometer should read 228°F; 240°F for 10 psi; and 250°F for 15 psi.
- Maximum registering thermometers may be ordered from Dental Planet:



<https://www.dentalplanet.com/midmark-reg-ritter-parts-7-parts-c-68-301-368-369/max-register-thermometer-for-midmark-reg-ritter-tuttnauer-reg-p-3115>



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