



## Safe Preserving: Time to Make Pickles

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The garden is ready, time to make pickles! Many vegetables can be pickled, with flavorful results. And pickling low-acid vegetables like green beans and cucumbers allow these products to be canned quickly and easily in a boiling water or steam canner. Pickling may seem to be a rather mysterious process, with complex steps and unusual ingredients, but if you remember to **use high quality ingredients** and **follow a tested recipe**, you can make high quality pickles every time.

There are two basic types of pickles, fermented (or crock) pickles and fresh pack or quick process pickles.

- **Fermented pickles**, also called **crock pickles**, are produced by fermenting cucumbers, or other vegetables, in salt brine for several weeks. During the fermentation, bacteria convert **sugars** naturally in the vegetables into **lactic acid**. Lactic acid preserves the pickles and gives them their characteristic tangy flavor. Genuine dill pickles and sauerkraut are both fermented products.
- **Fresh pack or quick process pickles** are not fermented. Instead, the acid necessary to preserve this product is added in the form of a 'pickling solution' of vinegar and spices. Sugar may also be added. Popular pickles such as bread-and-butter, and fresh pack dill are examples of this type of pickle. Also in this category are fruit pickles and relishes.

Select fresh, firm, high quality vegetables and fruits for pickling. The highest quality pickles will be prepared from:

- **Pickling cucumbers.** Pickling cucumbers of 1 to 2 inches make good gherkins, while pickles are more commonly made from cucumbers that are 3 to 5 inches long. You can leave them whole, or slice them lengthwise into spears or crosswise into slices or chunks. Cucumbers longer than 5 inches are best chopped and made into relish. Wax coated cucumbers brought from the grocery store are not suitable for pickling. [And remember, you can safely substitute zucchini or summer squash for cucumbers in any pickle recipe; relish recipes work best.]
- **Softened water.** Hard water contains minerals that may cloud the pickle brine, or cause off-flavors or discoloration. You can soften hard water by boiling for 15 minutes in a large kettle. Allow the boiled water to stand for 24 hours, and pour off the water, leaving the sediment behind.
- **Vinegar.** White vinegar is most often recommended in pickles. Use **only** standard commercial vinegar of 5% acetic acid. Do not use homemade vinegar. Cider vinegar may be a good choice for some pickles, but it does darken most fruits and vegetables. Never dilute vinegar, or alter the amount of vinegar in recipes, an unsafe product may result.

- Use pure **canning and pickling salt** for the highest quality pickles. Table salt contains anti-caking agents that will cloud pickle brine, and is not recommended. Ice cream salt, rock salt and solar salt should not be used for pickles. These salts may contain impurities that may make pickles unsafe.
- **Sugar and spices.** Either **white or brown sugar** can be used in pickle recipes, depending on your preference. Sugar substitutes are not recommended and will not produce a high quality product. Most pickle recipes call for **whole spices** for fresher and more concentrated flavor. Powdered spices will also cloud pickle brine and produce a less desirable product.

Many of us can remember our mother or grandmother adding **lime** or **alum** to create firm, crisp pickles. But firming agents such as **lime** or **alum** are no longer recommended in pickle processing. **Pickling lime**, if not used properly, **can make pickles unsafe to consume**. Pickling lime can **only** be used as an initial soak for fresh cucumbers, and excess lime must be thoroughly removed by rinsing. **Alum** is no longer recommended because the aluminum in this product may be unsafe to consume.

Here are a **few tips for making firm cucumber pickles** without relying on unsafe ingredients:

- **Process cucumbers within 24 hours of harvest.** Cucumbers deteriorate rapidly, and if stored too long will not make a quality product.
- **Gently wash cucumbers before processing.** Soil, especially that trapped near the stem, can harbor bacteria that may cause softening in pickles.
- **Remove a thin slice, 1/16<sup>th</sup> inch, from the blossom end** of each cucumber. The enzymes that cause softening are concentrated in the blossom end, and discarding a thin slice will help to keep pickles firm.
- **Soak fresh cucumbers** in ice water for 4 to 5 hours before pickling.
- **Follow a tested recipe**, and heat process pickles for the correct length of time.

The Pierce County UW-Extension Office has handouts available on Homemade Pickles and Relishes, as part of their Wisconsin Safe Food Preservation Series. These are free of charge and can be picked up during business hours. They are also available for download at: <http://learningstore.uwex.edu/assets/pdfs/b2267.pdf>

Kathryn Feuerhelm, Family Living Educator, is available in Pierce County to answer questions and provide resources on canning and food preservation. Please call the Pierce County UW- Extension office for more information. (715)273-6781 x6661