



HARVEST AND PRESERVE YOUR GRAPE CROP FOR YEAR-ROUND ENJOYMENT

Is it time yet? Maybe.

Ripening of grapes is a physical and chemical change to the berries initiated when berries change color (a stage called veraison). Grapes can only be ripened on the vine; thus, harvest needs to be timed when fruit is completely ripe.

To encourage uniform ripening, remove leaves around grape clusters (this exposes them to sunlight). Peak ripeness is determined once the majority of the clusters have reached uniform color, softness, sugar content, and other desired qualities.

Common indicators of ripeness include:

- **Uniform berry color** (across clusters and throughout the vineyard).
- **Berry softness and sugar content:** Berries begin to soften as they reach full ripeness. Unripe berries are hard to the touch, whereas fully ripe berries have a soft but firm feel.
- **Taste!** The flavor profile of a grape, such as the acids, tannins, and other compounds, is assessed by tasting various berries.

Berry development

Berries go through three growth phases before reaching ripeness.

In the first phase, which lasts 7–8 weeks, the berry undergoes rapid cell division and increases in size. During this phase, berries contain a lot of tartaric acid, malic acids, and tannins, creating a sour, bitter taste. This flavor characteristic discourages birds and other animals from consuming the fruit.

During the second phase, the seeds form and develop.

In the third phase, which lasts 6–8 weeks, the fruit doubles in size and undergoes changes in chemical composition. This final stage of development is identifiable by a change in berry color. Note that color

How to measure sugar content

Sugar content is measured with a refractometer, a hand-held device that measures total soluble solids (expressed in degrees Brix). The higher the Brix reading, the higher the sugar content. Table grapes are generally harvested at a Brix reading of 20; wine grapes are harvested at higher Brix values.

change is more prominent in red/black grape varieties compared to white grape varieties.

To learn more about growing grapes in Wyoming, visit <https://bit.ly/WY-grape-guide>.

Watch the weather

The last factor to consider is Wyoming's weather. Freezing temperatures can—and do—occur in September or October. Ripe or not, all grapes must be harvested prior to a freeze event (32°F or below).

Storage

Prior to processing or storage, clusters should be checked for any insects or disease to prevent off flavors and spoilage. Once grapes are harvested, they can be processed immediately or stored at 40°F for a few days before processing.

Store unwashed grapes in plastic bags with holes in a cold (32– 40°F) refrigerator crisper drawer with a high humidity setting. Grapes readily absorb odors, so store them away from foods that have strong odors.

Preservation

Food preservation refers to the processes used to prepare food for safe long-term storage. As with all fresh produce, grapes are best preserved within 24 hours after harvesting for the best flavor and nutrient value.

There are many ways to preserve the goodness of these little gems. Freezing, canning, pickling, drying, fermenting—it's enough to make your head spin!

To prepare grapes for preservation, wash the fruit, drain, and pat dry. Pull off and discard stems. Toss any grapes that are moldy or soft.

Grapes can be left whole or cut in half; remove seeds if directed in the recipe. If you are de-seeding a large quantity of grapes to be used in a recipe requiring pulp and/or skins, push the grapes through a sieve. For varieties with hard-to-remove seeds, the pulp may be boiled for five minutes and then pushed through the sieve.

To prevent light-colored green grapes from browning, you may wish to pretreat them. Prepare a solution using 3,000 milligrams of crushed Vitamin C tablets (one teaspoon of pure ascorbic acid equals 3,000 milligrams) or four teaspoons of citric acid



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Weights and quantities

Some recipes call for a specific weight of grapes (e.g. 9 pounds) while others call for a certain quantity (e.g. 2 quarts). Variation in moisture content, size, and variety makes it difficult to give specific recommendations.

Approximations of grapes with stems are as follows:

- 4 cups = 1½ pounds
- 1 bushel = 48 pounds

in one gallon of water. Soak prepared fruit for five minutes; drain and proceed with the recipe.

Freezing

Freezing whole grapes is easy if you follow a few simple steps. Place the clean, dry grapes in a single layer on a baking tray lined with wax paper or parchment paper, cover the tray with plastic wrap, and place it in the freezer. After three hours, remove the grapes from the baking tray and place them into a plastic freezer bag. Seal the bag tightly and label it with the date before returning it to the freezer.

To ensure maximum freshness, keep grapes in the freezer for up to a year from the date on the label. Frozen grapes can be eaten directly from the freezer

or incorporated into recipes. Grapes can also be frozen in syrup, as a puree, or in juice form.

Juicing and canning

Once grapes are juiced, the juice can be frozen or processed by boiling water canning for shelf-stable storage. Grape juice can also be made into jams, jellies, or syrup as well as fermented into vinegar or wine.

Seedless grapes are used whole in canning. They can be canned by themselves or in a fruit cocktail mix. During the canning process, the texture of the grapes changes, becoming soft and slippery.

Preservation Resources

Andress, E., and J. Harrison. *So Easy to Preserve*. 6th ed. Athens: University of Georgia Cooperative Extension Service, 2014, reprint 2020.

The All New Ball Book of Canning and Preserving, 2020.

United States Department of Agriculture. *Complete Guide to Home Canning*, Agriculture Information Bulletin No. 539. Revised 2015.

University of Wyoming Extension. *Preserving Food in Wyoming*, 2018. <https://bit.ly/wyo-1210>

Note: Make sure to use research-tested recipes published after 2014.

Fruit spreads

Grapes can be made into various gelled or thickened products.

- **Fruit butters** are sweet spreads made by cooking fruit pulp with sugar to a thick consistency. Butters are not gelled.
- **Jams** are thick, sweet spreads made by cooking crushed or chopped fruits with sugar.
- **Jellies** are made by cooking fruit juice with sugar.
- **Conserves** are jam-like products that can be made from a mixture of fruits. They may also contain nuts, raisins, or coconut.
- **Marmalades** are soft fruit jellies containing small pieces of fruit or peel.
- **Preserves** are spreads containing small, whole fruit or uniform-size pieces in a clear, slightly gelled syrup.

And more!

Take your taste buds on an adventure by making grape **chutney**. Chutney is a condiment made of chopped fruits, vinegar, spices, and sugar cooked into a chunky spread; it can be sweet or savory.

Did you know you can **pickle** grapes? Mixing sugar, spices, and vinegar with grapes gives them a unique flavor.

Flavored vinegar is fun and easy to make at home. Create a signature grape vinegar to enhance cooked dishes, marinades, salad dressings, and sauces.

Drying is one of the oldest methods of food preservation. Grapes can be made into raisins or fruit leather with a dehydrator or oven. Their concentrated flavor and sweetness lend a unique character to sweet or savory dishes, and their chewiness adds texture.

Next season, try some new grape preservation methods to put up your harvest. Once the grapes are preserved, you can eat them all year long!

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