

Chapter 3: How Grape Jelly Is Made

There has never been a team like peanut butter and jelly. They stick together through thick and thin. In fact, jelly got its name from being thick and sticky. It comes from the French word *gelée*, which means thickened. Jelly can be made out of many kinds of fruit. Grape jelly is one of the most popular in the United States.

<image: kid eating pbj cracker>

1. The dark purple color and special flavor of grape jelly come from Concord grapes, which are grown mainly in New York, Pennsylvania, Michigan, and Washington. Grapes grow in bunches on vines. Grape farms are called vineyards.

<image: farmer in vineyard>

2. Grapes are harvested in the fall, when they are sweet and juicy. They are so ripe that they fall right off their stems when a machine called a harvester shakes the vines *<image: harvester(s) in vineyard>*

3. The grapes fall into long troughs on the harvester and then drop from a tube at the side of the machine into large crates. Each crate weighs as much as two cars. Farm workers operate the harvester and make sure to stop the machine when the crate is full. *<image: harvester, tube, and crate>*

4. Truck drivers take the crates to the jelly factory. First, an inspector looks carefully at samples of the grapes to be sure they are ripe. Then, a forklift operator lifts each crate from the unloading area and empties it into a long funnel called the hopper. *<image: forklift, crate, and hopper>*

5. The hopper funnels the grapes into pipes that flow into a room inside the jelly factory. As the grapes are pumped through the pipes, they begin to get crushed. Then, paddles push them through holes just big enough for grapes and juice to flow through. Stems and leaves are left behind. The crushed grapes flow into a big vat. *<image: crusher>*

6. As the grapes are heated in the vat, they get softer—so the juice separates easily from the skins and seeds. The mixture is forced through a dejuicer or filter, which lets only the juice through. This time, the skins and seeds are left behind. Then the juice is heated until it almost boils, and quickly chilled until it almost freezes. This process, called pasteurization, completely kills any germs that might have been in the juice. *<image: vat and heating juice>*

7. The grape juice is kept cold in refrigerated 700,000-gallon tanks until it is time to make a batch of jelly. Then the juice is pumped from the tanks into big kettles to be cooked three times. Sugars and pectins are added to make it thicker. A worker uses a dipper to check the thickness. *<image: dipper testing thickness>*

8. The jelly goes into a finishing kettle for the last stage of cooking. While the jelly is still hot, it is pumped from the kettle to the filler and into jelly jars in exactly measured amounts. *<image: jars being filled>*

9. The jars must have nothing but jelly inside of them—not even air! Germs from the air could make the jelly unsafe. When a cover is put on top of each jar, the air is sucked out in a process called vacuum sealing. *<image: jars being covered>*

10. As the jars full of jelly are carried along an assembly line, machines brush paste and wrap a label around each one. The label tells the flavor of the jelly, every ingredient in it, and the jelly’s nutritional facts. *<image: jars being labeled>*

11. Before the leaves the factory, workers test samples from random jars in each batch for taste and color. Machines also test samples to make sure that no air is sealed in the jar. *<image: jelly being tested>*

12. If the jelly passes all the tests, the jars are packed in cardboard boxes with sheets of cardboard between them so they won’t bump and break. The boxes are loaded onto trucks and shipped to stores. The jelly is ready to meet its partner, peanut butter—on the other side of the sandwich. *<image: box of jars >*

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