

Megan Franz

*Green to Red: A Tomato Ripening Experiment*

The purpose of this experiment was to find the best indoor conditions for ripening green grape tomatoes in Colorado. I hypothesized that the green grape tomatoes kept in paper bags and exposed to ethylene gas (from other ripening fruit) would ripen faster than tomatoes in any of the other four environments tested. The experiment involved placing twenty green grape tomatoes in five different environments: individual cardboard shoe boxes, glass jars (with lids), plastic grocery bags, paper bags, and a sunny windowsill. Four trials were run for each environment, and in three of these, an unripe apple was placed alongside the tomato to see if ethylene gas from the ripening apple would speed up the process. Each tomato was examined daily and its condition was recorded in a notebook, and ripe tomatoes were removed. The data collected did support my hypothesis. All four tomatoes in paper bags ripened in 15 days, while those in plastic bags took 16. Tomatoes in shoe boxes and on the windowsill had a wide ripening range, with the windowsill tomatoes averaging 20 days, and the shoe box tomatoes averaging 21 days. None of the tomatoes in sealed glass jars ripened. Apples did not appear to shorten the ripening time in any of the trials. These findings lead me to conclude that a porous container and darkness are two conditions likely to cause a green tomato to ripen more quickly. It would be interesting to test each of these conditions separately.