The Cranberry Bounce Test

Problem: Will cranberries bounce if dropped from a fixed position?

Hypothesis: Fresh, undamaged cranberries will bounce; the others will not.

Experiment:

Materials: 20 whole cranberries selected randomly for each team, ruler, flat surface such as a desk or table top, 6" cardboard square, pencils, 2 small open containers and labels.

1. Before selecting your cranberries, how many do you think will bounce in this experiment? Enter a prediction (an educated guess) before moving to step 2.
2. Working in teams of two, randomly select 20 cranberries.
3. While one partner holds a piece of cardboard at a level of 1 foot above a desk, the other will push one berry at a time off the edge of the cardboard.
4. Berries should be separated into two containers. Label them "Bounced" and "Didn't Bounce."
5. Count and record the berries that are found in each container. Examine the berries and describe their appearance on the data box below.
6. Repeat the trial at least 5 times at two-day intervals and record the results.
7. Answer the questions and make conclusions.

Observations:

Trial	Day 1	Day 3	Day 5	Day 7	Day 9
Your own prediction for how many you think will bounce					
Number that actually bounced					
Appearance					
Number that did ***not*** bounce					
Appearance					

Conclusions:

How might this information be useful to a cranberry grower?

Describe your results. Did more berries bounce in the earlier trials or later trials? Why do you think this happened?

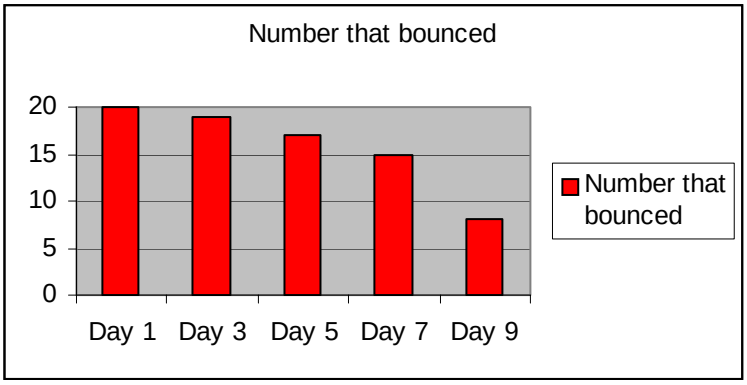
What fraction of the berries bounced for each trial? What fraction didn't bounce?

	Day 1	Day 3	Day 5	Day 7	Day 9
Fraction that bounced					
Fraction that did ***not*** bounce					

Can you think of a way to keep berries fresher for a longer period of time?

(Optional) Graph your findings in either a bar graph or a line graph. See examples below.

Sample bar graph



Sample line graph