



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2018 PROJECT SUMMARY**

Name(s) David Campos; Camryn Macias; Michael Paz	Project Number S1903
Project Title The Effects of Silver Nanoparticles on Radishes	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Test the silver nanoparticles found in silver nitrate to see if their antibacterial properties will have good and/or bad effects on radishes.</p> <p>Methods/Materials Silver nitrate, water, two clay containers with five radish seeds in each, water. One pot was watered with silver nitrate, the other was given water. Growth of radishes was analyzed.</p> <p>Results Each radish was harvested and analyzed after four weeks. The radishes with added silver nitrate had healthier coloration, did not attract pests, and longer leaves. The plants that were given water had longer roots.</p> <p>Conclusions/Discussion After analyzing each radish and comparing them, it can be determined that adding silver nitrate to the soil of growing radishes can increase the quality of produce.</p>	
Summary Statement By watering some radishes with silver nitrate and some with water, we determined the positive and negative effects of silver nitrate on radishes.	
Help Received My chemistry teacher explained some uses of silver nitrate and helped create copious amounts of silver nitrate that was needed. My group and I designed, conducted, and analyzed the experiment ourselves.	