



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

Name(s) Benjamin M. Kiekhaefer	Project Number J1912
Project Title Does Coffee Affect Spinach Growth?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this study is to determine the effect of coffee on the growth of spinach.</p> <p>Methods/Materials Spinach seeds, planter pots, potting soil, plastic cover, graph paper, and a gram scale. Twenty spinach seeds were planted and half were watered with coffee and the other half with an equal quantity of tap water. Surface area and weight of each plant's leaves were measured and compared to an average of coffee and control groups after 55 days.</p> <p>Results The spinach plants fed coffee had no significant difference in size or weight on average ($p < 0.05$)</p> <p>Conclusions/Discussion Coffee has no significant effect on spinach plant growth.</p>	
Summary Statement Coffee does not have a significant effect on spinach plant growth.	
Help Received I designed the experiment myself, and my science teacher helped me to incorporate the scientific method into my project and my mentor teacher helped me edit my report.	