



# CALIFORNIA SCIENCE & ENGINEERING FAIR 2018 PROJECT SUMMARY

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<b>Project Title</b> <b>Does Aspirin Help Plants Grow?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> Many gardeners dissolve Aspirin in the water they use to water their plants and are convinced it helps them grow. The reasoning is that plant produce small amounts of salicylic acid when stressed by insect attacks, plant disease or lack of water. The active ingredient in Aspirin is acetylsalicylic acid, originally made from salicylic acid, which reduces pain, fever and swelling. In plants, just like in mammals, salicylic acid helps them cope with stress and disease. By adding Aspirin to the water, gardeners are hoping to help their plants cope with problems and grow faster and stronger.</p> <p>In this project, I tested the notion that putting aspirin in plant's water helps them to grow, and cope with disease and stress.</p> <p><b>Methods/Materials</b> Materials: Flower pots (6 total), soil, seeds (radishes), Aspirin, water Radishes were planted with the same materials under the same conditions (same pots, same kind of soil, same amount of soil, same seeds, same amount of seeds, same location). they were watered with the same amount of water each time; for three of the pots, the water contained Aspirin. I started with 2 pots that were watered with plain water and two pots that were watered with Aspirin (2 Tablets/250 ml water). Later, I added, 2 more pots (one watered with plain water, one watered with Aspirin (1 tablet/250 ml). I recorded germination dates and growth.</p> <p><b>Results</b> I made a batch of plants in which the radishes that had aspirin in them grew poorly, and far worse than the plants that were watered with plain water. I made a second batch, this time with half the aspirin in the aspirin water. This plant still grew worse than the plants watered with plain water, but there was a marked improvement with only half of the aspirin.</p> <p><b>Conclusions/Discussion</b> I found out that aspirin harmed my plants. I did more research, and found out that the reason that the radishes did poorly with aspirin added to their water was because they produce more acetyl salicylic acid than most plants do, so giving them extra aspirin was like overdosing them.</p>	
<b>Summary Statement</b> Aspirin does not help radishes, a plant that already has a high natural content of acetyl salicylic acid, which is Aspirin's active ingredient.	
<b>Help Received</b> I performed the experiment myself, but had help from my parents with setting it up. My advisor and my school science fair judges helped me review my presentation.	