



**CALIFORNIA STATE SCIENCE FAIR  
2009 PROJECT SUMMARY**

<b>Name(s)</b> Vanessa A. Apodaca	<b>Project Number</b> <b>J2001</b>
<b>Project Title</b> <b>Water-logging: Do Polymers Inhibit Plant Recovery?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The purpose of my science project was to investigate whether the presence of polymer affects the recovery of vegetation when the soil has been water-logged. <b>Methods/Materials</b> Separate 45 radish plants into three groups of 15 plants each. Apply topical polymer (Cloud Cover) to one group, soil polymer (Soil Moist) to another, and leave the final group (control) the same. Water log plants until water line is one centimeter above the top of the soil. Wait 3 days for recovery, observe, and record results. Wait additional four days, observe, and record. <b>Results</b> When applying soil polymer: After three days, 66% of the plants were still upright after water-logging. After seven days, 46% of these plants remained upright. When applying topical polymer: After three days, 73% of the plants were still upright after water-logging. After seven days, 66% of the plants remained upright. For the control group which had no polymer present: After three days, 86% of the plants were still upright after water-logging. After seven days, 86% of these plants remained upright. <b>Conclusions/Discussion</b> Soil Moist, the soil polymer, was the most harmful to plants that had been water-logged. The presence of soil polymer prevented plant recovery from water-logging. Cloud Cover, the topical polymer, was the second most harmful to plants that had been water-logged. The control group which lacked any polymer recovered the most from water-logging. Farmers need to be aware when using polymers for their crops, that an unexpected rainfall, may cause the polymers to actually harm the vegetation.	
<b>Summary Statement</b> To investigate if the presence of polymer affects the recovery of vegetation when the soil has become water-logged	
<b>Help Received</b> teacher helped with topic and materials; mother helped with gathering research	