



# CALIFORNIA STATE SCIENCE FAIR

## 2017 PROJECT SUMMARY

Name(s) <b>Garrett Angres; Viraj Jain</b>	Project Number <b>J1901</b>
<b>Project Title</b> <b>How to Grow the Best Drought Resistant Lawn</b>	
<b>Objectives/Goals</b> Our goal of this experiment was to create a perfect combination of seeds and soils to keep a healthy green lawn in drought conditions. The problem that sparked my experiment was the almost 4 year California drought that lead to brown lawns all over the state. Our question was How to grow the Best Drought Resistant Lawn.	<b>Abstract</b> The method we used to conduct our experiment was by creating a 3x3 array of grass seed placed vertically on the array and soils placed horizontally on the array creating 9 unique samples. We labeled each container by the grass type in it and the soil it is growing in. We drilled 6 - water drainage holes at the circular base of each container.
<b>Methods/Materials</b> Our materials we used were our three grasses(Bermuda Grass, Blue Grass, and Fescue Grass.)Our three soils which were(Organic Soil, Peat Moss, and Potting Soil.)9 containers with a 3" radius and 1.5" height, A 75 watt grow bulb, A water spray bottle, weight scale, and a ruler.	
<b>Results</b> Our results showed that Bermuda grass didn't grow at all as we thought it would in our hypothesis, with further research we found that while Bermuda Grass is known to be robust, it grows dormant in cold temperatures similar to those while we conducted our experiments. Our results for height showed that Blue Grass grew tallest in Peat Moss, This is an important aspect as height can affect how healthy a blade of grass is. Fescue Grass was about half an inch away from meeting the same height as Blue Grass. In our results for the grass densities, Fescue Grass had the highest density with Blue Grass having 11 less blades per square foot of lawn.	
<b>Conclusions/Discussion</b> Our conclusion to our experiment showed that Fescue Grass in Peat Moss soil was the best combination in order to grow the best drought resistant lawn as it would achieve a dense and tall lawn. Although this contradicts our hypothesis that Bermuda Grass with Peat Moss would grow best in drought conditions, with further research we found that Bermuda grass goes dormant in cold temperatures.	
<b>Summary Statement</b> We investigated which seeds grow in which soil with less water.	
<b>Help Received</b> We performed this experiment by ourselves, But received information on grass from Laura Torchin at UC Davis	