California Science Center

CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.)
Bryan M. Strege

Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9)
Emperors of the World: Man or Microbes?

Science Fair Use Only

J1228

Division
X **Junior (6-8)** _ **Senior (9-12)**

Preferred Category (See page 5 for descriptions.)
12 - Microbiology

Abstract (Include Objective, Methods, Results, Conclusion. See samples on page 14.)
Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.

Objective: To grow microbial colonies and see what surfaces will effectively allow microbial slime to grow and form polysaccharides?
Materials & Methods: To form an artificial pond I used 2-(5)Gallon Buckets and filled them with water. I let them sit for 24 hrs. I labeled them bucket A and bucket B. Next I put 2 cups of soil into each bucket and stirred it. Next I took two clear (2ltr.)bottles and cut 10 equal strips from each. I punched a hole into each end of each plastic strip. Next I took string & leaving 7 cm. from the bottom I began to tie each strip to the string 3 cm. apart so that they would not touch one another. I put weights onto the ends of the strings to hold them down into the water. The top of the string I tied onto two dowels so that the strips would dangle independently in the water. Next I took 10 glass slides and clipped them onto a precut string with clips atached 3 cm. apart and weighted the ends so that they would float independently in the water. Next I took Skippy Peanut Butter, Crisco, Cayenne Pepper Sauce, Sunscreen, Vaseline, Red Nail Polish, Green Paint, Deoderant, Toothpaste, and coated the plastic strips & glass slides with these substances. Each group of strips & slides had a constant that I did not coat with anything. These strips & slides hung undisturbed for two weeks. I them pulle them from the water & examined them both with a magnifying glass and microscope and rated them on a scale of one to eleven judgint the amount of microbial colonies and polysaccharide slime that were formed. I next took a specimen from each slide, placed it on a sterilized slide, let it air dry, placed a drop of metheylene blue to each specimen-air dried them, and examined them under a microscope.
Results: Highest microbial colonies for plastic strips were Sunscreen and Peanut Butter, each rated (11). Highest microbial colony count for glass slides were rated (10) for Cayenne Sauce & Peanut Butter.
Conclusion: Surfaces coated with food products had higher microbial growth, and polysaccharides oozed.

Summary Statement (In one sentence, state what your project is about.)
My project shows that there are microbes present around us at all times, but that they thrive innutrient rich environments.

Help Received in Doing Project (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4.
Thanks to my Mom and Dad for all their support and thanks to Mr. Olmstead, Mr. Sarver and Mr. Urdrian at La Quinta Middle School for helping me get the supplies I needed for my project, the slides, Metheylene Blue, and Microscope.