



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Dallas S. Peters	Project Number J1632
Project Title The Effects of Ocean Water as an Irrigation Supplement on the Growth of Rice Seedlings	
Abstract Objectives/Goals My project objective was to determine the tolerance of different salinity levels from diluted ocean water on rice seedlings growth. Methods/Materials Purified drinking water, ocean water samples, M-201 <i>Oryza sativa</i> (rice seeds). Dilute the ocean water samples by 1/4, 1/2, and 3/4 with the purified drinking water. Then use these samples to irrigate the rice seedlings twice a day for nine days, once the seeds have started to sprout. Count, measure, and record growth of rice seedlings every other day. Results The seedlings irrigated with water diluted with 1/4 ocean water (containing salinity levels of 6.7 parts per million) had very little affect on the seedlings growth when compared to the control. The test sample irrigated with the water diluted with 3/4 ocean water (containing salinity levels of 8.8 parts per million) had a very damaging affect on the young seedlings. Conclusions/Discussion My conclusion is that smaller amounts of salinity from ocean water would not make a strong impact on the growth and stand density of rice seedlings.	
Summary Statement The tolerance of different salinity levels from diluted ocean water on rice seedlings growth.	
Help Received Recieved seeds from James E. Hill, UC Davis, Extension Agronomist; Mother helped type report; Verbal interview with Mike Hillhouse, ranch foreman, Koda Farms; Seeds and information from Dr. Catherine Grieve, USDA-ARS, U.S. Salinity Lab	