



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Caroline G. Salyer	Project Number J1326
Project Title Don't Spoil Your Appetite!	
Abstract Objectives/Goals I compared three different ways of detecting tomato spoilage. I did this by following the steps of the Malthus Method, the Direct Microscopic Count, and the Petri dishes method. I counted the bacteria on the glass slides in the direct microscopic count, I looked at the graphs that the Malthus Machine produced, and counted the bacteria colonies in the Petri dishes. I then compared them and the time that it took to do each one. Methods/Materials MRS broth, test jar, my saliva, Malthus Machine, PC computer, tomato paste, 2 glass slides, "ultra violet", emersion oil, microscope, 4 petri dishes, MRS agar, incubator, pipet. Results The results show which process I used was the fastest, and which one produced the most accurate results. The Direct Microscopic Count took only 18 minutes, the Petri dish method took over 5 days, and the Malthus Method took 19.6 hours. The results showed the Malthus Method was the most accurate. Conclusions/Discussion One petri dish contained too much bacteria, and two of them had too little. This does not mean that the food is not spoiled, it just means that there was too much bacteria to count and that it was useless because I had other samples that would be more helpful. The Malthus Method was the most accurate process.	
Summary Statement Which tomato spoilage detecting system works the most accurately and the fastest?	
Help Received Dad for teaching me, and Glenn Long for supervising me.	