



## Colorado Science and Engineering Fair

## 2024 Individual Project Abstract Form

**Please print 2 copies of the completed form. Sign both copies, keep 1 for your notebook and submit 1 copy to your Regional Fair Director with your other paperwork.**

Title of Project: Warehouse Worries

Finalist's Name: Bella Maze

School and City: Sargent Junior High School Monte Vista, Colorado

Sponsor's Name: Terri Paulson

Category: Biomedical Sciences (BMED)

Division: Junior (6th - 8th grades)

Abstract (250 words or less):

My mom works at a potato company where she ships thousands of pounds of potatoes daily. I have always been curious about the cleanliness of the warehouse. Do the potatoes lose or gain bacteria after going through the warehouse machinery and is the bacteria supposed to be there? I did my testing by using an adenosine triphosphate swabber to swab the potatoes. Using another swab to swab the potatoes for the agar dishes, also using a separate swab and agar dish to swab the machinery. Doing this same process for the holding tank, washer sandate, sprout nip, and before they are packaged. Then using the aerobic plate count method to count the number of bacteria get the bacteria identified by the del Norte hospital laboratory. The potatoes were cleaner then from the start but the machinery that was supposed to be cleaning the potatoes seemed to have the most bacteria in effect affecting the bacteria amounts on the potatoes, my finding is that the potatoes were cleaner before packaging than when they started. All the bacteria that were found are usually commonly found in potato warehouses These bacteria can be harmful but can be prevented if you wash and cook your potatoes thoroughly if to consume a raw potato you are exposing yourself to unwanted bacteria which could lead to sickness.

*I hereby certify that the above statements are correct and the information provided in the Abstract is the result of one year's research. I also attest that the above properly reflects my own work.*

Finalist's Signature:

Date:

In addition, all students must complete the ISEF Student Checklist (1A), Research Plan, Approval Form (1B), and Checklist for Adult Sponsor (1), and any other ISEF forms required for this type of project. See the International Rules and Guidelines for form requirements. Return COPIES o all of these forms to your Regional Fair Director with you Finalist Verification/Permission Form. A signed copy of this form must be included in your notebook.