

Hinal Rathi

*Love- Hate Bond Amongst Tubers and Elements*

Love- Hate Bond between potatoes and the elements is an interesting project to attempt. This project will not only help many farmers but will also help us know what are nutritional value of tubers consists of. The purpose of this experiment was to test if the different types of tubers and soil samples accumulate various elements differently or not. My hypotheses was that different types of cultivars and soil accumulate various elements differently. To test my hypotheses the procedure was divided into two parts- Extractions and ICP-MS procedure. After I performed my procedure the results were that Purple Majesty tubers in potting soil accumulated more amount of Selenium than Rio Grande Russet tubers in potting soil where as Rio Grande tuber grown in SLVRC soil accumulated more than Purple Majesty tuber grown in SLVRC soil. Potting soil has more amount of Beryllium compared to SLVRC soil. Rio Grande Russet grown in potting soil accumulated less Chromium than tubers grown in potting soil where as potting soil has led amount of Chromium than SLVRC soil. Potting Soil shows more amount of Cobalt than SLVRC soil. SLVRC soil shows more amount of Cadmium in it then potting soil. Purple Majesty tubers grown in SLVRC soil than Rio Grande Russet. Purple Majesty accumulated more amount of Manganese than Rio Grande Russet. In general tubers grown in potting soil accumulated more Manganese. Both the cultivars accumulated less amount of Lead. SLVRC soil has more amount of Lead than potting soil.