

Summary of Research Progress for 1990

Submitted To: SLVRC (Colorado Potato Administrative Committee)

Title: Post-harvest Potato Quality Evaluations

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Project Justification: The potato breeder is primarily interested in yield and disease resistance features whereas potato processor, nutritionists and consumers are more concerned with chemical/functional properties. Information of this type is extremely valuable to the breeder when used in combination with his objectives.

Project Status: Funding through SLVRC (1990--\$3,000)

Significant Accomplishments in 1990: A total of 36 lines , including six named lines, were evaluated for total solids, subjective and objective enzymatic browning, subjective baked flavor, objective color, total glycoalkaloids, vitamin C, protein, total sugars, glucose and fructose. By comparing data obtained from the current commercial lines to that obtained from the experimental lines, the breeder can decide which lines should be investigated further and which lines should be dropped.

Objectives for 1991: Expand the number of experimental lines evaluated and expand the types of analyses performed. As an example, measure individual glycoalkaloids in addition to total since certain glycoalkaloids contribute more to bitter taste than others.

Funding Request: 1990 Allocation: \$3,000

1991 Request: \$4,500

Supplies/Materials \$4,200

Data Interpretation 300

Total \$4,500