

**SUMMARY RESEARCH PROGRESS REPORT FOR 1990
AND RESEARCH PROPOSAL FOR 1991**

Submitted to:
SLV Research Center Committee
and the
Colorado Potato Administrative Committee (Area II)

TITLE: Evaluation of Advanced Clones for Potato Leafroll Expression

PROJECT LEADER: Robert D. Davidson

PROJECT JUSTIFICATION: Disease management strategies in the San Luis Valley are of critical importance to all potato producers. Over the past few years there has been considerable effort put forth in controlling potato leafroll in the potato crop. The success of this effort has been outstanding, both in seed fields and in commercial lots. However, we know that varieties differ in their attractiveness to the aphid vector, their ability to become infected with leafroll, the time during the season this infection is most likely to occur and the effectiveness of the vector to spread this infection from one plant to the next. We have found some potato clones which act as symptomless hosts for the virus. These clones might provide a reservoir of inoculum which could act as an infection source for those varieties which are susceptible to leafroll symptoms.

PROJECT STATUS: This is an ongoing project which has been funded the last several years.

SIGNIFICANT ACCOMPLISHMENTS FOR 1990: Eleven advanced clones were screened for their symptom expression to leafroll. Inoculation and leafroll infected occurred early in the growing season. Results will be tabulated and placed in the long report after the final winter test reading on March 5th.

OBJECTIVES FOR 1991: Ten to fifteen advanced clones from the Colorado Cultivar Development program will be inoculated and evaluated for leafroll symptom timing and expression and for in-field leafroll spread.

FUNDING REQUEST:

1990 Allocation: \$ 750.00

1991 Request: \$ 750.00