

RESEARCH PROPOSAL FOR 1984

Michael K. Thornton

1. Potato Clone x Spacing x Fertility  
Three clones, WNC672-2, WNC285-18 and TC2-1, will be compared to Centennial and Russet Burbank for yield and grade under 3 spacings and 3 nitrogen fertility levels. This information will help determine cultural practices necessary to produce maximum yield of new clones.
2. Effect of Preplant Levels of Nitrogen on Tuberization of Sangre, Centennial and Russet Burbank  
Date of tuberization, subsequent tuber growth, and final yield will be measured under 5 preplant levels of nitrogen to determine if levels of nitrogen used in the San Luis Valley delay tuberization and affect yield. If tuberization is delayed, then application of some nitrogen through the sprinkler may increase yields.
3. Conservation Tillage in Wheat-Potato Rotation  
This experiment will be conducted in conjunction with the Soil Conservation Service. The goal is to determine effects of chisel plowing wheat stubble before potatoes and seeding a winter rye cover crop after potatoes on erodibility, residue buildup, nitrogen utilization, and yield of potato and grain crops. Several herbicide-cultivation regimes will be compared to determine the best practices for conservation tillage.
4. Cultural Practices for Micropropagated Potatoes  
Factors such as planting date, vine kill date, spacing, and transplant size will be investigated to determine cultural practices for maximizing yield of micropropagated plants.

Other Research Projects Not Involving Administrative Committee Funds:

Effect of Malaeic Hydrazide on yield, grade, and storability of Centennial Russet (Dependent on Uniroyal Chemical Co. Funding).

BUDGET REQUEST FOR 1984

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Labor	\$1,500.00
Travel	300.00
Supplies	300.00
Equipment	<u>900.00</u>
TOTAL	\$3,000.00