NRSP/IR BUDGET REQUESTS -- ATTACHMENT I
ACCOMPLISHMENTS CY2000
NRSP-6: Introduction, Classification, Preservation, Evaluation and Distribution of
tuber-bearing Solanum species germplasm.

Introduction:
Important progress was made in building the collection. We negotiated for import of
unique germplasm from the VIR (Russian) genebank and the Polish potato breeding
station.

Classification: Dr. Spooner continues to resolve problems in taxonomic classification that
impede efficient documentation and use of the germplasm. Insights gained from these
studies will allow accessions to be assigned stable species names based on empirical
differences.

Preservation: The usual work for maintenance of top quality Solanum germplasm at
NRSP-6 was continued. Germination tests were done on new seed and on others on a 5-
year rotation. Virus tests were done on new seeds and the in vitro clonal stocks. Seed
increases were done in the spring, fall and summer. RAPD markers were used to assess
several aspects of the status and dynamics of genetic diversity in the genebank. Found a
new way to encourage seed formation on recalcitrant populations.

Evaluation was continued in house or with collaborators specializing in the particular
trait: Combining frost tolerance with good tuber type, tuber calcium, tuber and foliar
glycoalkaloids, late blight, antioxidants and hormone mutants.

Distribution: A total of 8,433 units of germplasm were distributed in 116 orders, 1/3 of
which were foreign.

Intergenebank Collaboration: Research to determine the equivalence of presumed
duplicate populations held in different genebanks was completed.

For specific areas of accomplishment, see Appendix IV listing recent publications and
presentations.
NRSP/IR BUDGET REQUESTS -- ATTACHMENT II
GOALS CY2001

Introduction: We will continue efforts to identify elite late blight breeding stocks and test genetics of resistance. We will strengthen our collaborative ties with other genebanks. We expect to receive and assimilate materials from Peru, Russia, and Poland.

Classification: Experiments to better understand species boundaries will continue.

Preservation: Efforts to identify less expensive, easier, and more reliable ways to grow and increase potato germplasm will continue. Samples of new germplasm will be transferred to NSSL and/or the University of Wisconsin for backup. Rigorous disease prevention and monitoring practices (mainly for viruses) will be continued. We will continue bacterial ring rot screening as a health monitoring protocol for the in vitro collection. We will continue research to measure the status and dynamics of genetic diversity in the genebank pursuant to preventing its loss during preservation.

Evaluation: We will continue evaluating potato germplasm for frost tolerance, glycoalkaloids, tuber calcium accumulation, hormone mutants, antioxidants, late blight, aphid resistance and other characteristics that impact the continued success of the potato crop. Evaluation is a high priority for the genebank, since it is the key to mining the value of the germplasm in which we have invested so much effort for preservation.

Distribution: Potato is the world's most important vegetable crop, and the genebank at Sturgeon Bay is the world's most comprehensive and accessible collection. Germplasm and technical assistance for researchers and breeders will continue to be rapidly and impartially available here.

Intergenebank Collaboration: The cooperative intergenebank project will continue to use RAPDs to assess the dynamics of genetic diversity in model US species. We will compare reputed duplicates from the CIP and US collections. See Appendix for specific projects in progress.
NRSP-6 Appendix

JUSTIFICATION
For 3% SALARY increase in FY 2002

The need is increasing: The size of the collection and associated labor, supplies and upkeep are rising rapidly. We have received flat budgets for the past three years and that money now buys less, since in 2000, Classified employees got a 3% raise, and Academic Staff about an 8% raise.

We propose a 3% increase for salary and labor in FY 2002.
NRSP/IR BUDGET REQUESTS
SUMMARY
NRSP-6: Interregional Potato Introduction Project

<table>
<thead>
<tr>
<th>Description</th>
<th>Multistate Research Funding</th>
<th>Other Sources of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dollars</td>
<td>FTE</td>
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<tr>
<td>Salaries</td>
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<td>3.3</td>
</tr>
<tr>
<td>Fringe Benefits (Salary Only)</td>
<td>28,040</td>
<td></td>
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<tr>
<td>Wages (+ wage fringe)</td>
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<td>Travel</td>
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<td>Supplies</td>
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<td>Maintenance</td>
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<td>Equipment/Capital Imp.</td>
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<tr>
<td>UW Contribution (est.)</td>
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<tr>
<td>TOTAL</td>
<td>161,931</td>
<td>161,931</td>
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</table>

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a No increase authorized but we will have to pay this much due to nondiscretionary staff raises.

b 3.0% base salary and labor increase -- see Appendix: JUSTIFICATION

c estimated up to 5% increase
# NRSP-6 Budget Request

**NRSP-6: Interregional Potato Introduction Project**

## Detailed Information on Positions, Salaries, and Fringe Benefits

<table>
<thead>
<tr>
<th>SALARIES</th>
<th><strong>MultiState Research Funding</strong></th>
<th><strong>Other Sources of Funding</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Authorized(^a) FY 2000</td>
<td>Authorized(^a) FY 2001</td>
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<tr>
<td></td>
<td>Dollars</td>
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<tr>
<td>Admin. Project Assistant</td>
<td>23,076</td>
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<td>Technician (Specialist)</td>
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<td>Technician</td>
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<td>Gardener</td>
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<td>1/2 Research Assistant</td>
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<td>Secretary / Clerical</td>
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<tr>
<td>ARS Research Leader</td>
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</tr>
<tr>
<td>ARS Geneticist / Proj. Leader</td>
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<td></td>
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<tr>
<td>ARS Research Botanist</td>
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<tr>
<td><strong>Total Salaries</strong></td>
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<td>Fringe Benefits (Salaries only)</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>118,857</td>
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</table>

FY 1999-2000 % Salary increase: 3-8%
FY 2002 Anticipated (requested) RRF Salary increase: 3%

\(^a\) actual and projected spending
APPENDIX IV
Recent Publications and Presentations of Project Personnel
(examples of subject areas in which we are active)


Thill, C., E. Radcliffe, D. Ragsdale, R. Hanneman, Jr., J. Bamberg.  The identification of aphid resistant 4x potato germplasm for use in breeding.  (PAA 1999 published abst.)
February 7, 2001

Ms. Madelyn Alt  
UW - 240 G Ag Hall  
1450 Linden Drive  
Madison, WI 53706

Madelyn,

As usual, I put the updated budget tables into the WORD template I already have in my computer. It looks like the sheets you faxed are the same as always. If you see any problems, however, let me know.

As mentioned before, the most important part of this is the request for 3% increase in salary and labor (that was already submitted in response to Dr. Lower’s request last September).

Thanks.

Sincerely,

John Bamberg  
Project Leader