

FINAL PROJECT REPORT

Project Title: Consulting for the northwest cherry improvement project

PI: Fredrick A. Bliss

Organization:

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Address: 214 Inca Pl.

City: Davis

State/Zip: CA 95616

Cooperators: Jim McFerson, Jim Olmstead, Amy Iezzoni, Matt Whiting, Yanmin Zhu, Cameron Peace, Amit Dhingra, Nnadozie Oraguzie

Other funding Sources: N/A

Agency Name:

Amount requested/awarded:

Notes:

Total Project Funding:

Budget History:

Item	Year 1:	Year 2:	Year 3:
Salaries			
Benefits			
Wages			
Benefits			
Equipment			
Supplies			
Travel	\$2,000.		
Miscellaneous	\$5,500.		
Total	\$7,500.		

ORIGINAL OBJECTIVES:

- Coordinate and lead monthly conference calls among members of the cherry team to facilitate discussion of important issues related to sweet cherry improvement.
- Provide analysis and critique of proposals for competitive funding of research and development related to cherry improvement.
- Suggest ways to improve breeding efficiency and field testing efficiency to optimize cultivar development for the Pacific N.W.
- Facilitate collaboration among team members and key resources in the public and private sectors.

SIGNIFICANT ACTIVITIES and FINDINGS:

- Coordinated conference calls with members of the cherry team
 - Seven conference calls during the year to discuss issues relevant to sweet cherry improvement. Participants included Jim McFerson, Amy Iezzoni, Cameron Peace, Amit Dhingra, Matt Whiting, Jim Olmstead, Yanmin Zhu and Nnadozie Oraguzie
- Reviewed and critiqued research proposals from cherry team members.
 - Individual submissions to the NRI competitive grants program
 - Group proposals for the RosBreed and RosTrait submissions
 - Various proposals to the WTFRC
- Participated in the Prunus GGB Team Workshop at Prosser, July 2008.
 - Made two presentations
 - Reviewed breeding program with new breeder, N. Oraguzie
 - Worked with Oraguzie to collate and organize information about parents, crosses and S-populations
- Facilitated interaction among breeders and scientists.
 - Discussed Prunus breeding activities at Davis with J. Olmstead and D. Rudell during their trip to California
 - Continued interactions with molecular scientists at Kearney Agric. Center, Parlier, CA and with UC Davis scientists relative to peach rootstocks.
 - Contacted statistician in Canada about field trial designs for tree fruit evaluation.
- Alerted cherry team to key references for breeding and genetics of sweet cherry.
- Submitted invoices for expenditures on a quarterly basis.

RESULTS & DISCUSSION:

The use of monthly (except during the summer busy season) conference calls continued to provide a good forum for members of the cherry team to discuss important issues relative to cherry improvement. Although all members are not able to participate in all calls, most have been consistent and provide constructive input. Of particular importance, it is a regularly scheduled meeting where issues such as trait importance, testing sites, marker-trait associations and similar topics were discussed.

Members of the cherry team are to be acknowledged for their constructive, interactive and inter-dependent approach to cherry improvement. They exchange ideas and provide constructive input to each others' ideas. There is a lot of helping each other to share ideas and to promote synergy without redundancy and duplicated effort. I am available and have read a good number of proposals in preparation which I believe contribute to a higher likelihood of acceptance and funding success. Several members of the team submitted research proposals that were accepted and funded during the latest round of the NRI competitive grants program. Many members of the cherry team contributed substantial time and effort to preparing the RosBreed and RosTrait proposals, which unfortunately were not funded. However, the information gathered during those activities is being used in the ongoing programs.

The Prunus GGB Team workshop held at Prosser in July was very useful to review the breeding program and begin discussing and addressing important issues with the new breeder, N. Oraguzie and other members of the team. There was good interaction among researches to help in developing new proposals and to learn what is happening in various programs that can contribute to the breeding effort, e.g., rootstock testing, genome sequencing, micropropagation, trait phenotyping and evaluation and marker development, etc. There was excellent interaction among team members and board representatives to identify issues needing attention.

There are an exceptional number of outstanding scientists in the PNW (WSU, OSU, ARS, WTFRC and perhaps others) devoting significant effort to improving the vitality and competitiveness of the tree fruit industries. By continued collaboration these efforts can result in significant new cultivars, better production and handling methods, improved consumer acceptance, and ultimately sustainability of growers. Continued interaction among these components is critical to continued support and success. These varied activities contribute to that spirit of collaboration.

I was unable to participate at last years' Cherry Research Review because of illness. However, I did participate in the workshop which was very valuable. This year, I have spent the amount budgeted.

EXECUTIVE SUMMARY

Title: Consulting for the Northwest Cherry Improvement Project

PI: Fredrick A. Bliss

WTFRC Funding: \$7,500.

I have continued as a consultant to the Northwest Cherry Improvement Project which is an integrated project focused on development of new cultivars through classical breeding and application of applied genomics such as marker-assisted selection to improve efficiency. The long-term nature of tree fruit breeding requires maximum efficiency of resources and plant materials and clear integrated activities that will minimize the time required to develop and release new cultivars that fit the needs of the N.W. cherry industry.

I continued working with other researchers, cooperators and members of the industry to provide expertise and knowledge about fruit breeding that I have accumulated in both the public and private sectors. I provide insight and ideas for identifying and applying appropriate technology to facilitate cultivar development in a minimum timeframe. My role is to support the efforts of the breeders and researchers working on this project and provide information and feedback to Jim McFerson and Board members about progress toward objectives.

Objectives this year were to: 1) Coordinate and lead monthly conference calls among members of the cherry team to facilitate discussion of important issues related to sweet cherry improvement; 2) provide analysis and critique of proposals for competitive funding of research and development related to cherry improvement; 3) suggest ways to improve breeding efficiency and field testing efficiency to optimize cultivar development for the Pacific N.W; and 4) facilitate collaboration among team members and key resources in the public and private sectors.

The objectives were met through activities conducted from my home office in Davis, CA such as telephone conference calls, electronic communication, and participation in the summer workshop in Prosser. Activities included: 1) Coordinated conference calls with members of the cherry team; 2) reviewing and critiquing research proposals from cherry team members; 3) participating in the Prunus GGB Team Workshop at Prosser, July 2008; 4) facilitating interaction among breeders and scientists; and 5) alerting cherry team to key references for breeding and genetics of sweet cherry.

There are an exceptional number of outstanding scientists in the PNW (WSU, OSU, ARS, WTFRC and perhaps others) devoting significant effort to improving the vitality and competitiveness of the tree fruit industries. By continued collaboration these efforts can result in significant new cultivars, better production and handling methods, improved consumer acceptance, and ultimately sustainability of growers. Continued interaction among these components is critical to continued support and success. These varied activities contribute to that spirit of collaboration.

The budget of \$7,500 included \$2,000 for travel to Wash. State for project review and related activities and \$5,500 for miscellaneous expenses related to consulting.