Solanaceae Coordinated Agricultural Project

SolCAP Solanaceae Coordinated Agricultural Project Annual Meeting		
January 11, 2009	8AM – 12Noon	The Town and Country Resort, San Diego, CA

Meeting	1st Annual SolCAP Meeting
Director	David Douches
Executive Committee	David Francis, Robin Buell, Walter De Jong, Allen Van Deynze, Alexandra Stone, Lukas Mueller
Attendees	Kelly Zarka, MSU
	Ed Kaleikau, CSREES-USDA
	Michael Coe, Cedar Lake Research
	Glenn Bryan, SCRI
	Thomas Osborn, Monsanto
	Dan Ronis, Frito Lay
	Bob Dietrich, Syngenta
	Barbara Liedl, West Virginia State Univ.
	Debby Lewis, Ohio State Univ.
	Jay Scott, Univ. Florida
	Nick Wheeler, Oregon State Univ.
	Jim Giovannoni, USDA-ARS
	Kent McCue, USDA-ARS
	Joyce VanEck, BTI Cornell Univ.
	Hamid Ashrafi, UC-Davis
	Jan de Haas, HZPC
	Kaishu Ling, USDA-ARS

Welcome and SolCAP Overview

8AM	Presenter: David Douches
Discussion	

Roles of the Advisory Board: The advisory board should provide feedback regarding the project during the meeting advisory board meeting. A report of discussions and conclusions should be produced and sent to the SolCAP executive committee. The findings in the report should be addressed and responded to and a final report sent to the USDA-CSREES office.

Location of future annual SolCAP meetings: It was agreed on by the majority that the annual meeting should coincide with the Plant and Animal Genomics meetings held in San Diego every year.

Create a highly visible and innovative education program

8:30AM	Presenter: Walter De Jong
Discussion	

The data analysis pipeline component will be an important component in both the student education and the breeder workshops. Management of the data pipeline is critical and a discussion with the breeders is needed to establish what know exactly what they need and want in the toolbox. The toolbox needs to be useful and efficient.

Michael Coe is working on developing surveys that will target specific audiences (students, breeders, etc) so that we are assured that the community can and will make use of the information.

Amplify outreach efforts by developing an eXtension Community	
8:40AM	Presenter: Alexandra Stone
Discussion	

A CAP's eXtension workshop was held on Jan 10, 2009 and "Plant Breeding and Genomics Community" was selected for the name of our CoP (Community of Practice) within eXtension.org.
The meeting also involved brainstorming the content of our community.

Collect standardized phenotypic data for tomato and potato.	
8:50AM	Presenter: David Francis
Discussion	

Originally the objective stated that there would be 1536 SNPs identified for tomato and potato. The number for potato has changed to 7600 SNPs and we will use the Infinium platform.

Development of a standardized format for phenotypic data will be created and completion will be required by participants to submit their populations for genotyping.

Develop extensive sequence data.	
9:00AM	Presenter: Robin Buell
Discussion	

There are 5,500 Tomato eSNPs and 7,700 potato eSNPs based on public Sanger ESTs.

The ESTs established for tomato are heavily biased toward TA496. The current ESTs and sequence data for potato is from 3 main varieties, Kennebec, Bintje, and Shepody, none of which are relevant for commercial uses in the U.S.

cDNA libraries will be constructed and 500Mb sequence will be generated for each of the 3 potato and 6 tomato genotypes from the U.S. germplasm.

Establish centralized facilities for genotyping a core set of SNPs	
9:10AM	Presenter: Allen Van Deynze
Discussion	

A two-tiered approach will be used for genotyping and mapping to maximize cost efficiency and flexibility.

Address regional, individual program and emerging needs through a small grants	
9:20AM	Presenter: David Douches
Discussion	

Potato and tomato communities have the opportunity to submit mapping populations for genotyping. Educational workshops and extension needs can be addressed with this flexible funding.

The new Illumnina Infiinium will enable us to get greater genome coverage for potato. Some of the flexible funding will be directed for this expansion of the genotyping.

Create integrated, breeder-focused resources for genotypic and phenotypic analysis	
9:30AM	Presenter: Lukas Mueller
Discussion	

A more breeder-friendly interactive interface to display data from trait to gene including germplasm, phenotypic, genotypic and genomic data will be produced through SGN and a breeder toolbox.

SolCAP Advisory Board Discussion	
11:00AM	Presenter: Glenn Bryann
Discussion	

See SolCAP Advisory Board Report.