NRSP10: Database Resources for Crop Genomics, Genetics and Breeding Research

1. *Expand online community databases currently housing high quality genomics, genetics and breeding data for Rosaceae, citrus, cotton, cool season food legume and Vaccinium crops*

2. *Develop a tablet application to collect phenotypic data from field and laboratory studies.*

3. *Develop a Tripal Application Programming Interface for building breeding databases.*

4. *Convert GenSAS, the community genome annotation tool, to Tripal*

5. *Develop Web Services to promote database interoperability*

NRSP 10   Year 1 Objectives

1. Collect and curate genomic, genetic and breeding data for all databases

2. QTL and genetic map curation up-to-date for GDR

3. Implement all currently available Tripal pages in citrus, legume and Vaccinium databases

4. Develop Tripal API for breeding database and implement in GDR

NRSP 10   Year 1 Objectives

5. Develop webinars for Tripal, GDR and CottonGen

6. Ensure all module development is to Tripal standard and make publicly available

7.   Update all database tutorials.

NRSP 10 Year 2 Objectives

1. Curate genomic, genetic and breeding data for all databases

2. QTL and genetic map curation up-to-date for cotton and citrus databases

3. Design the breeding data app interface and functionality

4. Implement breeding data interface in Tripal in databases for cotton and citrus

5. Convert GenSAS to Tripal;.

NRSP 10 Year 2 Objectives

6. Ensure all module development is to Tripal standard and make publicly available

7. Develop web services for data retrieval in the GDR

8. Update webinars for Tripal, GDR and CottonGen and develop webinars for the Cool Season Food Legume Genome, Citrus Genome and Vaccinium Genome Databases

9. Update all database tutorials