Report on Parallel Session I

# BIOTECHNOLOGY, GENOMICS, AND BREEDING OVERVIEW

9<sup>th</sup> International Oat Conference Beijing, China



Presentations: I. Biotechnology/Genomics: Cytogenetics Molecular biology Databases Trait mapping Gene discovery Mutation breeding Population genetics II. Breeding

Disease resistance Development of new oat species Applied breeding in China and Australia



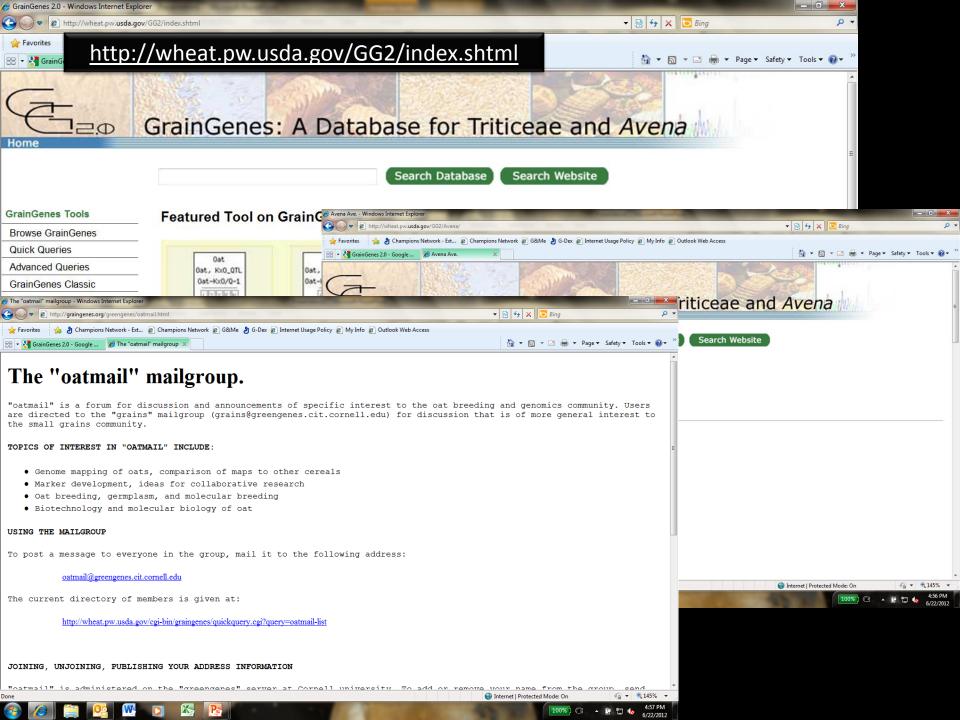


Encouraging: The global oat research community has made considerable strides since the international oat meeting in Minneapolis, MN 2008

Sustainability: We now have the opportunity (responsibility) to make the outcomes of both completed and ongoing research <u>Available,</u> <u>Accessible, and Applicable</u>.

The papers (*presentations and posters*), with approval from the authors, should be posted online using the GrainGenes 2.0 Portal







# Molecular Tools/Resources: "We can now merge the science with the art (breeding)"

"Tools need to be easy to use without to many resources."

# Focus on a global database: "This is the lynch pin required to connect the tractor to the plow"

Mapping population catalog

Marker/trait associations

Cytogenetic characterization

Support of GranGenes Curation





### Application of mutation breeding in oat

Technology should be pursued as a way to develop novel oat traits

The technology will need to have direct application to breeding programs



#### Genomic selection in oat





### North American Oat Workers Conference 2014 Ottawa, Canada

