

## **BRAINSTORMING SESSION**

Group A

Moderated by Jonathan Crouch

### **Feedback from Group A on Traits and Software and Data Management**

Rapporteur: Peter Balint-Kurti

#### **On traits:**

Add to list:

A crop specific physiological understanding of drought and how the drought response interacts with other responses.

A common protocol for measuring drought stress, including environmental parameters and quality control

Of the traits suggested by our group, we agreed the GCP should be looking at protease inhibitors, osmotic adjustment, heat stress and root traits and disease resistance. We felt the GCP should not be looking at flooding tolerance, cold and salt stress.

For model-assisted phenotyping, we felt this should focus on modeling drought, in particular osmotic stress, root traits and possibly leaf traits such as stay green.

#### **On Software and data management:**

Need to apply plant ontology systems as they apply to our work. Need to adapt existing systems if necessary, with particular focus on developing drought ontology. Ontology should be trans species as much as possible. GCP encouraged to have representation on appropriate groups responsible for developing ontologies.

Databases need not be fully integrated but should be *intergrateable*. This means using standard nomenclature for genes, lines etc. Users need to help define what exactly is needed.

Data storage is crucial. Institutions are responsible for long term storage of data. GCP could consider requiring that grant receiving institutions have data storage policy in place.

Databases and web resources are no use if you can't access them. Several regions, particularly east Africa, have very poor internet access. GCP could consider the following steps;

1. Regular distribution of databases etc on external hard drives distributed by courier to local centers.

2. Look into procedure for minimizing bandwidth requirements for downloading data.

3. Facilitate email based BLAST searches etc (NCBI server often times out on searches if bandwidth is too narrow).

GCP should consider producing audio visual training materials on CD-ROM for GCP-linked NARS scientists for training on use of databases etc.

Core marker sets were thought a good idea and their use should be mandated where possible. Cos marker development should be coordinated with the wider community. One person within the GCP should have responsibility for this.