MaizeGDB Working Group Report
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This report is based on an on-line meeting and e-mail discussion following a status update from the MaizeGDB on May 5, 2009.

Overall the working group is impressed with the progress reported by MaizeGDB and commend the entire team for their excellent work.

The comments below are in part a response to a specific request for feedback from MaizeGDB (page 36 of the status report) and in part the result of discussions among members of the Working Group.

Genome browser
First of all we would like to stress that the Genome Browser is already a great tool and we find it very useful.

We have several recommendations for future features:

- support for BLAST queries to protein databases (currently only nucleotide queries are supported).
- functionality to allow links to remote sites, such as links to UniformMu embedded within the genome browser tracks.
- if possible, the addition of microarray probes to the browser similar to feature available at maizesequence.org
- addition of comparative tools (see below under **MaizeGDB content**)

We also discussed the addition of new types of information to the browser/database (e.g. proteomics/microarray data). We do not feel these are a high priority as they can be handled through DAS rather than the browser itself.

MaizeGDB content
This topic is also related to the genome browser.

Future sequencing and mapping efforts will focus on strains of maize different from the B73 strain that is currently represented in MaizeGDB. Therefore, a high-priority should be placed on adapting MaizeGDB to be able to handle multiple maize strains. This effort should alsoinclude the development of tools that enable comparative analyses between strains.

This focus should be given higher priority than the incorporation of new data-types in the database and/or genome browser.

Data consistency

The assembly of the maize genome that underlies the sequence information in MaizeGDB is in constant flux. As the assembly keeps improving it is critical that the data in MaizeGDB remain consistent. This issue is already discussed in the MaizeGDB report, however we re-iterate it here to stress its importance. In addition to ongoing efforts in this direction, we recommend that the MaizeGDB clearly and prominently communicate the sequence version information (currently such information is only available through mouse-over in the browser). It is also important for the users to know how quickly the data are changing (e.g. when a new update is expected).

We also suggest that MaizeGDB coordinate with the groups generating the sequence and annotation information and send out an announcement to the community outlining the process for generating/improving/updating assemblies and annotations. This announcement could, for example, be broadcast through the MGEC list serve. We would like to stress that communication with the community is critical!

Curation

The Working Group considers data curation efforts to be one of the main contributions of MaizeGDB and would like to see a continued focus on such efforts.

Lisa's effort to curate phenotype descriptions is very important and should be streamlined by involving other researchers in the curation process. One possibility could be the request for additional funding that would support student involvement in the curation process.

There are a variety of other types of curation possible beyond just textual information, including for example: cellular, subcellular information, expression data, metabolites, growth variation, physiological characteristics, etc. Curating such information would be very useful, however, would represent a huge undertaking. Thus, we recommend that curation priorities continue to be focused on current projects. We recommend, though, that MaizeGDB be involved in discussions with other Model Organism Databases that handle phenotype information in order to get a better handle on the issues involved in the display and curation of non-textual information. The Working Group would like to be informed about possible opportunities in this direction. Also, we would like more information about current curation efforts as these activities were not discussed in sufficient detail in the report.

Working Group meetings/organization
The comments below are partly in response to one of the questions from MaizeGDB, partly based on our experience in conducting the Working Group meeting.

a) Meeting format and frequency
The Working Group generally feels that the on-line only meeting format was not conducive to in depth discussions, thus we would prefer in person meetings in the future. On-line meetings would, however, enable us to provide more timely feedback to the MaizeGDB and would probably work if targeting specific items and are only focused on one or two topics of discussion. Thus we recommend that we hold yearly meetings in person and on-line meetings on a bi-yearly basis or as needed.

b) Working group membership
Carolyn raised the question of whether we should institute term limits for Working Group members. We feel that term limits are unnecessary at the moment but that the issue should be revisited at a future date.

An additional recommendation is the addition to the Working Group of someone from the breeder community. While MaizeGDB is not targeted at this community, we feel that input from breeders could provide valuable feedback.

Final comments
In conclusion we would like to re-iterate our appreciation for all the hard work and dedication of the MaizeGDB team.

Planning for the future, we would like to touch base with MaizeGDB after the next release in order to re-evaluate future priorities.