



Agriculture and
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ICIS 2007 Developer's Workshop



Session 4: Current Status in the Management of Genetic Marker and Genotyping Data

Molecular Data at SPARC

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Overview

- Background
- DMS and Data Comp
- LIMS/GEMS system



Background

- Major push at SPARC to enter molecular data into ICIS
- 3 new projects approved (Spring Wheat, Winter Wheat, Molecular Breeding)
- Data from other projects



DMS and DataComp Tool

- DataComp handles basic queries – needs to be expanded to handle more advanced questions

The screenshot shows a Microsoft Excel spreadsheet titled "DataComp.xls [Read Only]". The spreadsheet is used for "ICIS Parent Comparison". It contains a table with the following columns: STUDY, CHROMOSOME, MARKER NAME, EXPERIMENT NO., EXPERIMENT CODE, and Ep. N(alt). The table lists various marker scores for different studies and chromosomes.

STUDY	CHROMOSOME	MARKER NAME	EXPERIMENT NO.	EXPERIMENT CODE	Ep. N(alt)
F1B HAPLOTYPE	6B5	gwm219	..	..	199
F1B HAPLOTYPE	6B5	wmc192	..	..	267
F1B HAPLOTYPE	6B5	wmc397	..	..	182
F1B HAPLOTYPE	6B5	wmc105	..	..	374
F1B HAPLOTYPE	6B5	wmc388	..	..	198
F1B HAPLOTYPE	6B5	gwm508	..	..	N
F1B HAPLOTYPE	6B5	wmc434	..	..	237
F1B HAPLOTYPE	6B5	gwm618	..	..	188
F1B HAPLOTYPE	5A5	gwm293	..	..	208
F1B HAPLOTYPE	5A5	gwm416	..	..	191
F1B HAPLOTYPE	5A5	wmc705	..	..	154
F1B HAPLOTYPE	5A5	gwm129	..	..	241
F1B HAPLOTYPE	5A5	barc107	..	..	235
F1B HAPLOTYPE	5A5	gwm204	..	..	217
F1B HAPLOTYPE	4B	gwm513	..	..	163
F1B HAPLOTYPE	4B	barc020	..	..	205
F1B HAPLOTYPE	4B	wmc049	..	..	209
F1B HAPLOTYPE	4B	gwm113	..	..	168
F1B HAPLOTYPE	4B	wmc236	..	..	252
F1B HAPLOTYPE	4B	gwm605	..	..	276
F1B HAPLOTYPE	4B	wmc710	..	..	129
F1B HAPLOTYPE	3B5c	wmc418	..	..	290
F1B HAPLOTYPE	3B5c	wmc307	..	..	163
F1B HAPLOTYPE	3B5c	gwm285	..	..	244
F1B HAPLOTYPE	3B5c	wmc625	..	..	122
F1B HAPLOTYPE	3B5c	wmc777	..	..	111
F1B HAPLOTYPE	3B5c	wmc612	..	..	288
F1B HAPLOTYPE	3B5c	wmc231	..	..	267
F1B HAPLOTYPE	3B5c	wmc078	..	..	248
F1B HAPLOTYPE	3B5	wmc754	..	..	163
F1B HAPLOTYPE	3B5	wmc459	..	..	157
F1B HAPLOTYPE	3B5	barc117	..	..	153
F1B HAPLOTYPE	3B5	gwm533	..	..	..
F1B HAPLOTYPE	3B5	gwm389	..	..	151



DMS and DataComp Tool

- Next steps
 - to allow for user to choose any number of lines to compare
 - to bring together the phenotypic data with the marker data
 - to include marker information from a LIMS/GEMS database, if user requires

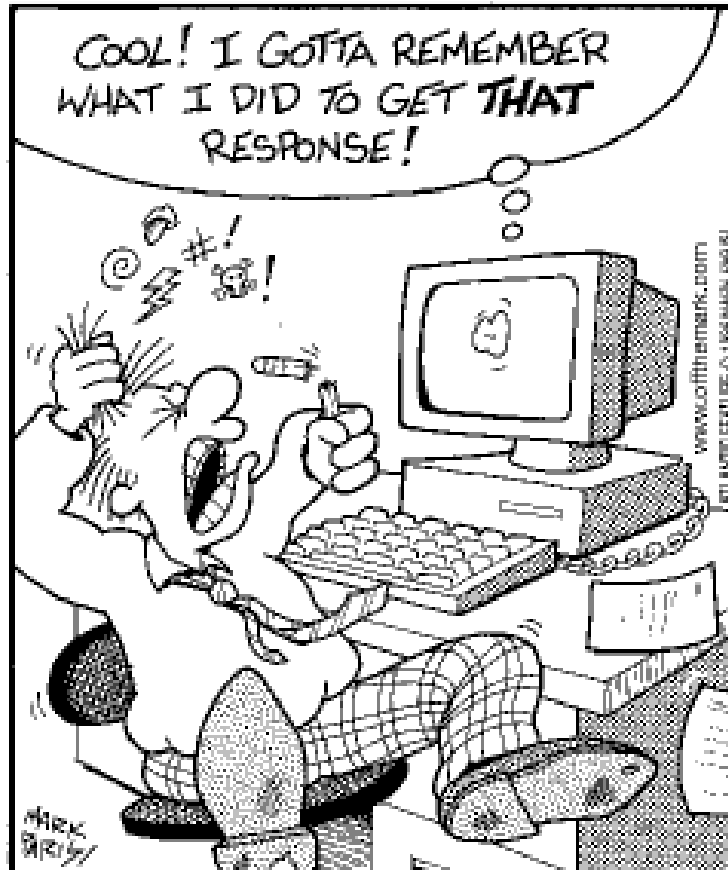


LIMS/GEMS system

- Very important to decide on a LIMS/GEMS for SPARC: Goal is to have something in place by end of 2007
- Needs to be intuitive:
 - Lab technicians should not need to have in-depth knowledge of ICIS data schema to use
 - Queries need to be easy to understand



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LIMS/GEMS System

- System needs to be flexible
 - Can accommodate changes
 - Can be modified to fit lab practices
- Support
 - Would like to use a system developed within the ICIS community