

Bundesforschungsinstitut für Kulturpflanzen Federal Research Centre for Cultivated Plants

C&E data in the European *Avena* Database and the International Database for *Beta*

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Basic concepts

E+C data presentation in the EADB and IDBB

E+C data acquisition in the AVEQ project

Used technology for AVEQ





- Store all data as original as available.
- Measurement data in SI units are generally preferred.

 (Algorithms to generate easy to read scores from measurement data can be made available more or less easily while reconstruction of original measurement results from scores is not possible).
- Give all background information as considered necessary for scientific publication in atomised (= searchable, sort able, filterable) form: methodological, experimental, geographic.
- Offer the user an easy to read ranking (1-9) for first orientation, but give him the possibility also to go into original data.

Structure of the Observation Table



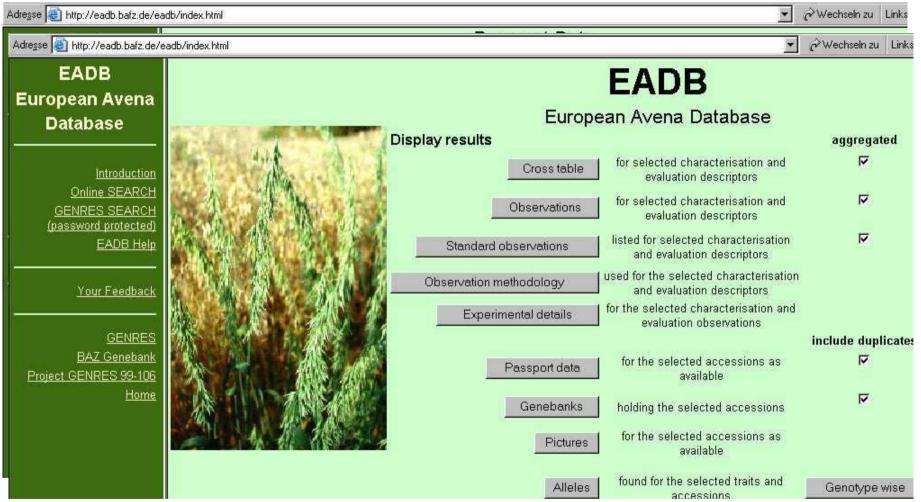
Identifiers (Foreign	n Keys)
GENOTYPE / ACCI	ESSION
HolderCode	Char 15
AccessionNumber	Char 15
GenotypeID	Integer
Accession/	Char 50
StandardName	
<i>METHODOLOGY</i>	
DescriptorID	Integer
MethodID	Integer
EXPERIMENTAL	
ExperimentID	Integer
TreatmentCode	Char 15
ORIGINAL PLOT	
OriginalPlot	Char 15

Numeric Data	ı
ScoringDate	Date
ScoringStage	Integer
Replications	Integer
PlantsTested	Integer
AbsoluteValue	Float
Percentage	Float
NumericScore	Float
Frequency	Float
STATISTICS	
StandardDeviation	Float
StandardError	Float
VariationCoefficient	Float
Minimum	Float
Maximum	Float
Skewedness	Float
Kurtosis	Float
STANDARDISED D	ATA
UniversalScore	Float

7									
Text Data									
OriginalScore	Char 8								
Homogeneity	Char 15								
Remark	Char 70								
DataAvailable	Char 2								

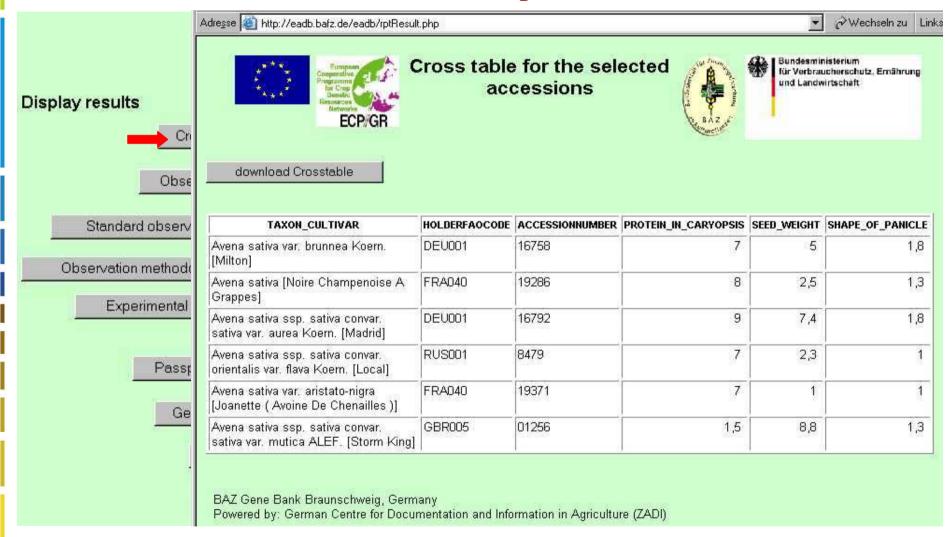
Data presentation: query generator





Data presentation: Observation – Cross Table

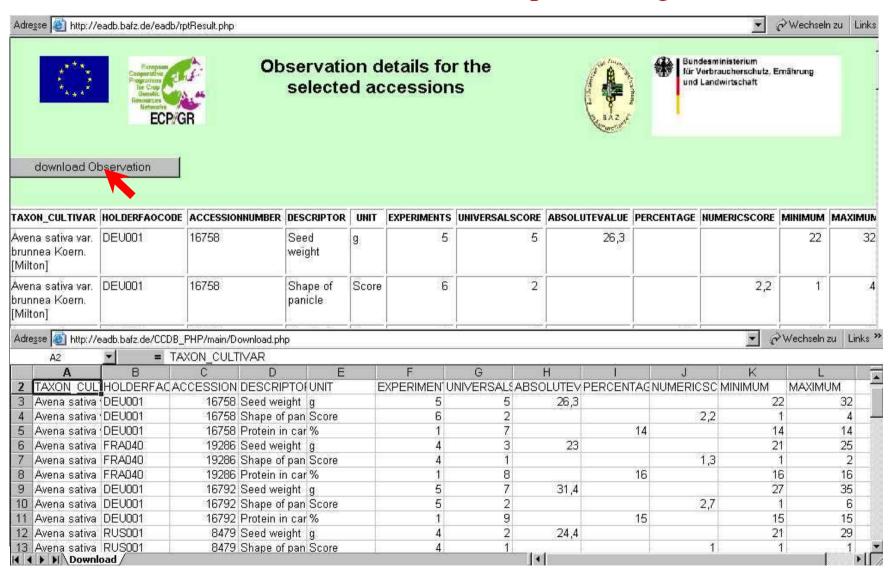
ObservationControl -> reportCrosstable(...)



Data presentation: Observation – Listing

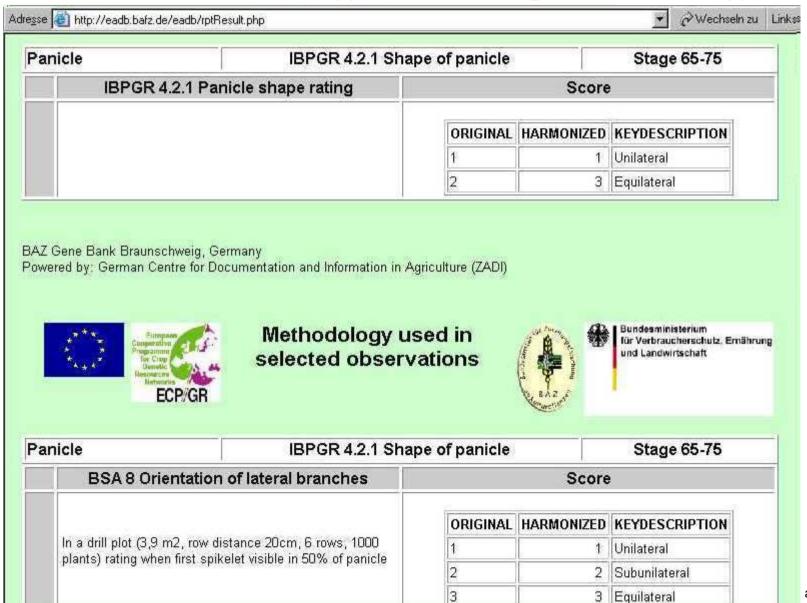


ObservationControl -> reportListing(...)



Data presentation: Methodology

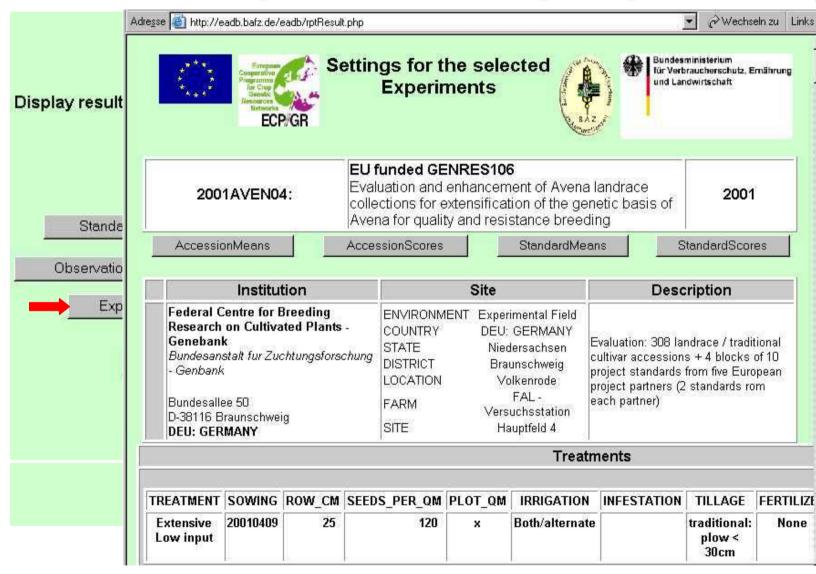
MethodologyControl -> reportMethodology(...



and Evaluation Data

Data presentation: Experiment

ExperimentControl -> reportExperiments(...)



Data presentation: Pictures



PictureControl -> reportPictures(...)



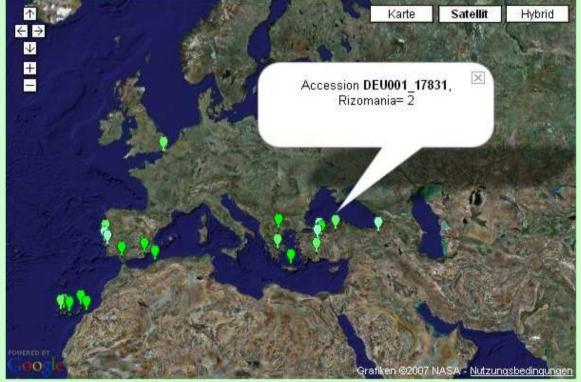
Geographic visualisation of C+E Data (IDBB)



Map selected accessions and traits



On aliak diaplay for calcuted



accession:	siected
O Passport	
O Evaluation	
O Pictures	
Trait Virus aberrations	~
Descriptor	10000
Rizomania	V
Operator	
Max	V
Compare	
2-	4.0

BAZ Gene Bank Braunschweig, Germany Powered by: German Centre for Documentation and Information in Agriculture (ZADI) 3: low sign of susceptibility

RESET

Score

Data acquisition in AVEQ: Vision of the web application



Facilitate inclusion of project data into a central database by:

- -> promoting standardized ways of data generation.
- -> take over routine calculations.
- -> promote standardization of concepts and identifiers (ontologies).
- -> create a repository of web solutions (tool set) for managing cooperative multisite genetic resources work.

Issues: Project methodology

Field plans

Scoring lists and Excel templates for data input

Input harvest results

Import Excel spreadsheets

Data acquisition in AVEQ: Used Technology



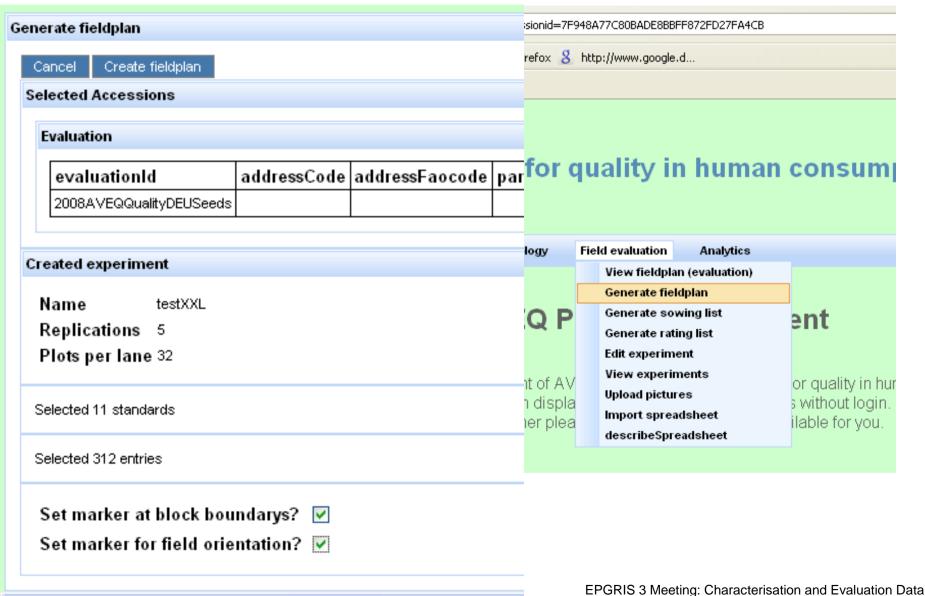
Java Enterprise Edition (JEE 5) Frameworks and Components:

- JBoss Application Server
- Hibernate: Database-Abstraction / Object Relational Mapping
- Seam / SeamGen
- Rich Faces (Implementation of Java Server Faces Standards)

All used frameworks and components including the application server are open source and available without costs. The source code will be made available in CropForge.

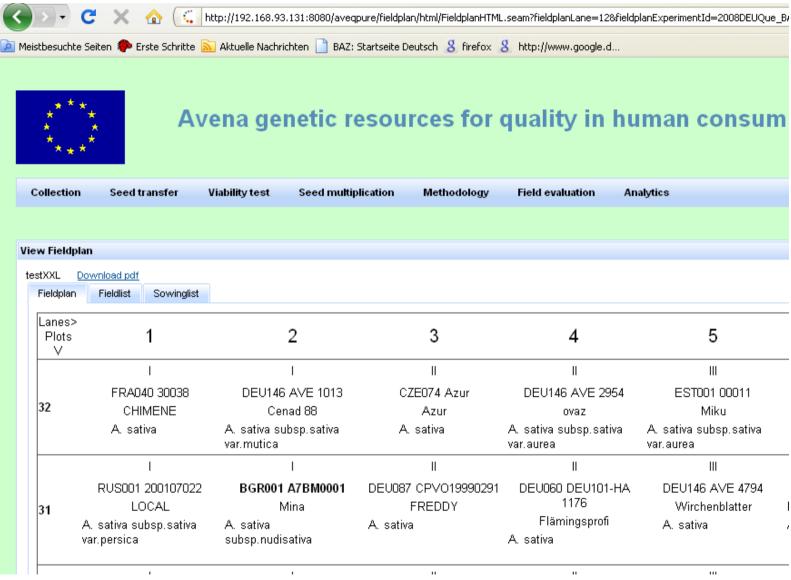
Generate fieldplan





Generate fieldplan





Generate rating list



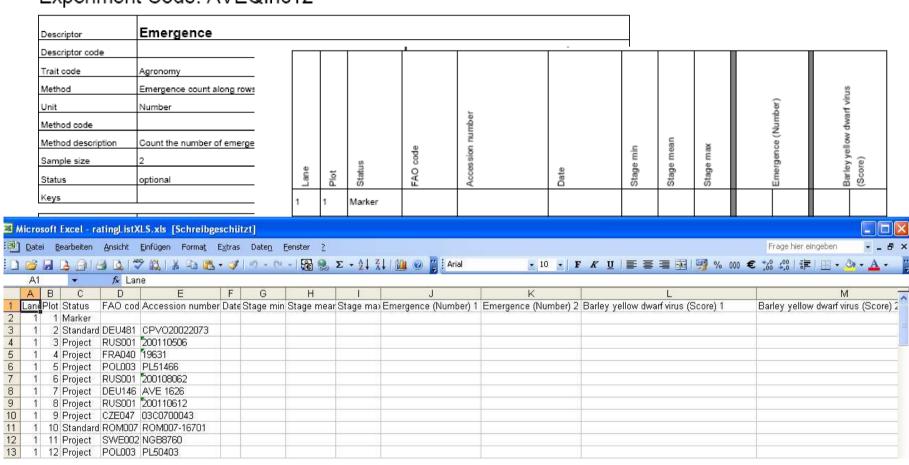
Collection		Seed transfer		Viability test Seed multiplication		tiplication	Methodology		Jy F	ield e			Analytic				
		Gen	erate	rating list								un.	ann fla	aldolas	i manda antiim		
Sowing year	Cod		Generate PDF Generate XLS Select methodology														
2007	AVEQInc ²													cription			
2007	AVEQInc'		V	09	11	Emergence	Agronomy	optional	Emergence count along rows	Number		р	Count the number of emerge plants along one meter in two neighbouring rows per plot				
				25	29	Growth habit	Habit		Growth habit rating UPOV	Score	UPOV 1 / I	BSA til p 2	At juvenile stage, angle of tillers from the vertical in plot (3,9 m2, row distance 20cm, 6 rows, 1000 plan Show keys		tical in a drill distance		
												іг іг	Estimate percenta infected in the plo infected plant acc scale.	t. Score mos			
									D) (D) (Key	Desc	ription		
						Barley			BYDV Rating:				1 n	o symptor	ns		
			V	31	31	31	73	yellow dwarf	Disease	on occurrence	Combined Method Plot	Score			3 s	light dwar	rfing
						virus					Percentage	ercentage		(5 c	onsiderab	ole dwarfing
									and Score					onsiderak Ind small p	ole dwarfing panicles		
												8		o tillering			
													9 р	lant dead			

EPGRIS 3 Meeting: Characterisation and Evaluation Data

Generate rating list

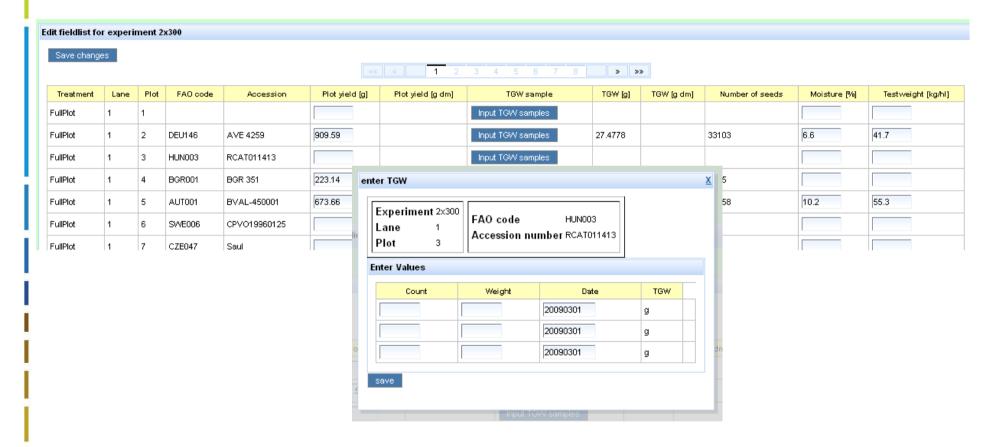


Experiment Code: AVEQInc12



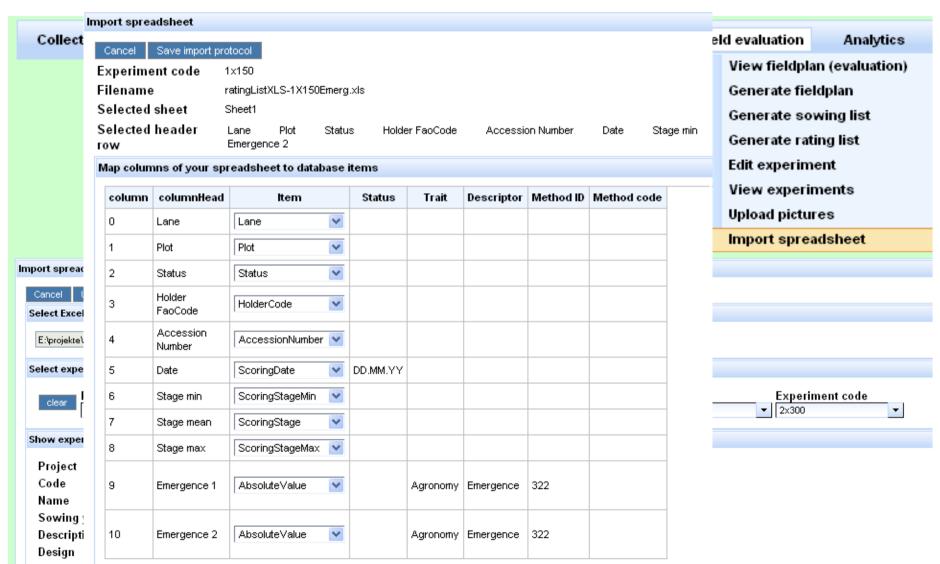
Input harvest results





Import Spreadsheet







Thanks for your attention