

Welcome to CGIAR sessions

- 3 sessions

Development of genomic resources

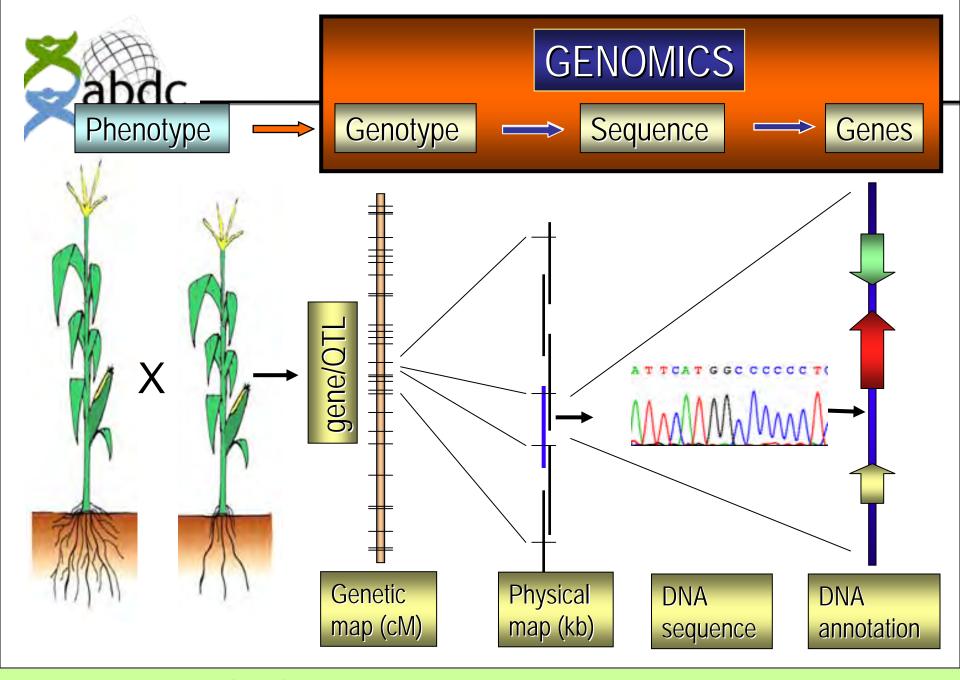
14.30-16.15 hrs by Rajeev Varshney, ICRISAT/GCP

Genomic Application: Molecular breeding in developing countries

16.45 - 18.30 hrs (today) by Jean-Marcel Ribaut, GCP

Conservation and sustainable use of genetic resources for food & agriculture

16.45 - 18.30 hrs tomorrow by Dave Hoisington, ICRISAT

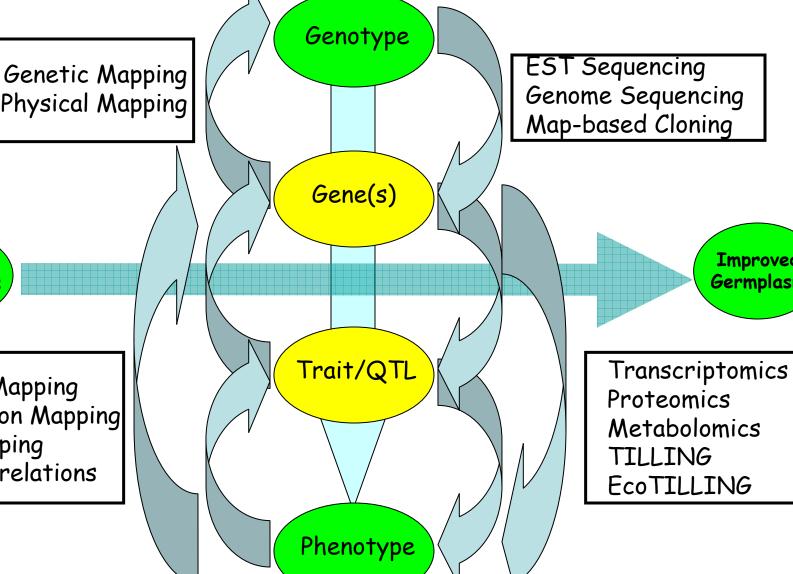


Varshney & Tuberosa (2007). Genomics-Assisted Crop Improvement- 2 volumes. Springer

Genomics-assisted breeding: Predicting the phenotype Genotype EST Sequencing Genetic Mapping

Genetic Resources

Genetic Mapping Association Mapping QTL Mapping Trait Correlations



Improved Germplasm

Molecular markers and platforms

Genome

Hybridization

RFLP RAPD SSR AFLP DArT Markers associated with trait

> Genomic selection, Marker-assisted Recurrent selection

Genotyping by sequencing

Infinium assay

Next-generation

sequencing

GoldenGate assay

SNPs

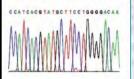
Gel electrophoresis

Marker-assisted

selection (MAS) Gene sequences

Gene (trait)









CO-ORGANIZERS







24-27 April, 2010 Bologna, Italy

BOLOGNAFIERE, Piazza della Costituzione 4

SCIENTIFIC SESSIONS

- . Harnessing plant diversity: from sequence to function
- . Harnessing plant diversity: genomics-based applications
- · Genomics of Triticeae genetic resources
- · Genomics for increased sustainability of Triticeae crops production
- · Genomics-assisted crop improvement for food security in developing countries
- · Genetic resources for nutritional quality
- · The next challenges

KEYNOTE SPEAKERS

Congress Keynote Speaker

Gebisa Ejeta - 2009 World Food Prize Laureate, Purdue University, Lafayette, USA

Opening Keynote Speaker

Emile Frison - Director, Bioversity, Rome, Italy

Closing Keynote Speaker

Andreas Graner - Director, IPK, Gatersleben, Germany

INVITED SPEAKERS

E. Akhunov

L. Broers

Z. Bedo D. Bergvinson M. Koornneef

P. Langridge

S.H. Lee

S. Davidson

O. DePonti

S. Eathington T. Fahima

R. Flavell

J.C. Glaszmann

E. Guimaraes S. Jackson

J. Jia B. Keller T. Komatsuda

A. Melchinger M. Morgante

A. Murigneux

E. Porceddu A. Rafalski

F. Salamini J. Salse

> K. Schmid A. Schulman

U. Schurr

P. Schweizer

P. Shewry

S. Tartarini J. Tohme

G. Valle

S. Varotto

R. Varshney R. Velasco

F. Virgili

R. Visser

R. Waugh L. Willmitzer

M. Yano





BolognaFiere 24-27 April, 2010

www.pastatrend.com

Development of genomic resources: Current status & future prospects

AGENDA

14.30 Welcome & introduction

14.35 Roberto

14.45 Rajeev

14.55 Jerry

15.10 Jasper

15.25 Discussion with audience

16.10 Closing

16.15 Coffee

ROLES

Rajeev Varshney: Facilitator

CGIAR: Host

Roberto Tuberosa: Panelist 1

Jerry Taylor: Panelist 2

Jasper Rees: Panelist 3

Michael Baum: Rapporteur

All others: Participants

EXPECTED OUTCOMES

- To better understand the issue, identify gaps and needs...
- To identify options for the future...
- To have content for summary for next days plenary

RULES

- Participate and share experiences
- Keep focus on key issues
- No one dominates
- Respect the time

Introduction of parallel session



Some issues!

<u>Investments</u>

 Current status of genomic resources- are we done?

 If not- should developing countries invest in developing genomic resources?

abdc

Some issues!

Methodologies

- In-houses vs outsourcing?
 (exchange of germplasm across countries)
- Basic infrastructure?
- Linkage mapping vs association mapping
- MAS vs MARS/GWS

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Some issues!

Capacity building of NARS partners

- Role of CGIAR?
- Leading role of NARS?
- Data generation is no more an issuehowever- what about NARS capacity for data analysis, interpretation, management?
- Data access & sharing?
- Adoption of genomic technologies



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