

Life-long learning: food for thought

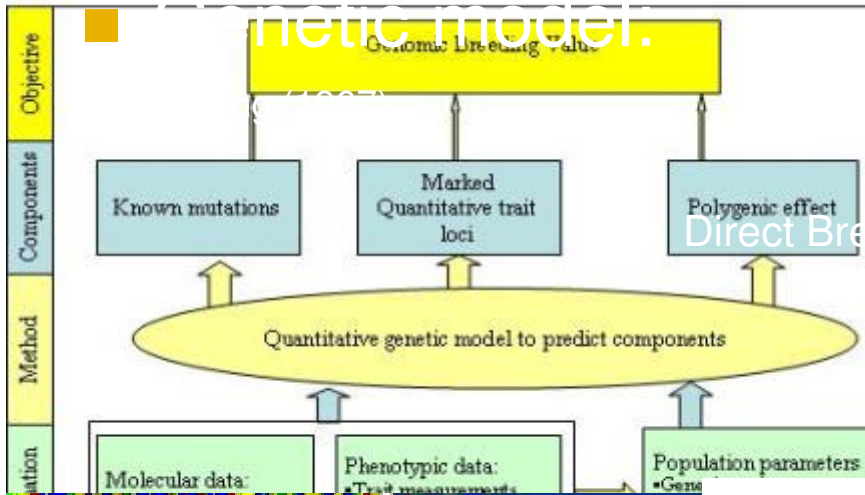
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Animal Breeding: fascinating new opportunities

Figure 1: Genomic breeding values of animals optimally combine phenotypic and molecular



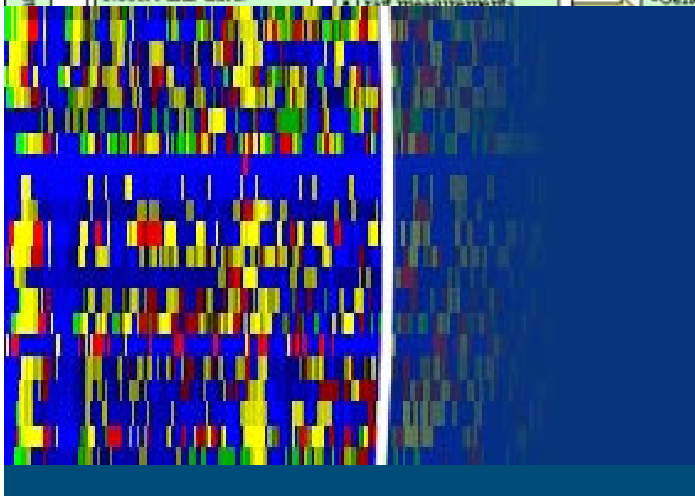
$$P_i = A_{D,i} + E_{D,i} + \sum_{i \neq j} A_{S,j} + \sum_{i \neq j} E_{S,j}$$

Direct Breeding Value

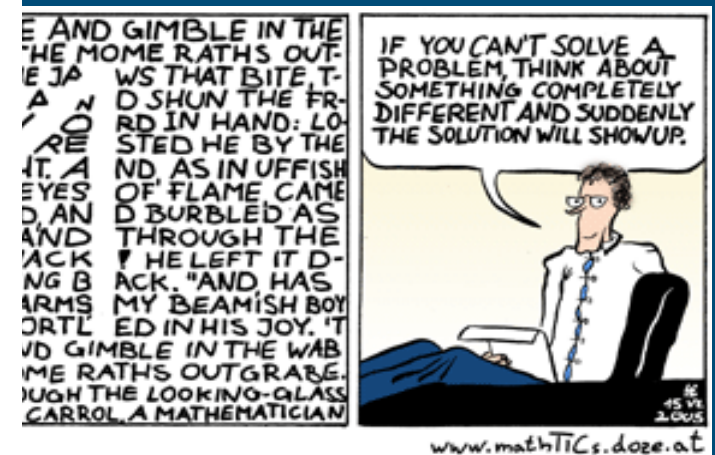
Social Breeding Value

classical

"new"



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Animal breeding: helps to meet today's challenges

- ❑ Animal Breeding: contributes to improvement of efficiency and quality of animal production
- ❑ Animal Breeding industry: consolidation
- ❑ Animal Breeding: a knowledge intensive sector
- ❑ Need for tailor-made solutions
- ❑ Research & Implementation: need for qualified people



This presentation: how to get qualified people

- I will distinguish
 - Training of new MSc and PhD students (overview)
 - Training of people working in the industry (focus)
- Based on recent discussions with Fabre-TP
- Food for thought → is action needed?



MSc training in Animal Breeding and Genetics

- Number of universities offering MSc-training in Animal Breeding is decreasing
- In response to this:
 - People with different backgrounds (e.g. biology or general genetics) enter into PhD training in field of ABG
 - Universities in six EU-countries joined forces to offer European Master (EMABG)



Six universities jointly forces → EMABG

- Wageningen University (WU, Netherlands)
- University of Natural Resources and Applied Life Sciences (Vienna, Austria)
- Christian-Albrechts-Universität (Kiel, Germany)
- AgroParisTech (Paris, France)
- Swedish University of Agricultural Sciences (Uppsala, Sweden)
- Norwegian University of Life Sciences (Ås, Norway)



European Master in Animal Breeding and Genetics

- EMABG recognized in 2007 as Erasmus Mundus course for period of 5 years
- Builds on existing MSc programs
- Funding of 20-25 scholarships for non-EU students
- Number of participating students
 - 2007: 24 out of 200 applications
 - 2008: 22 out of 280 applications
 - 2009: 25 out of 280 application
- Good example of International collaboration



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Education and Culture DG

ERASMUS MUNDUS

PhD training

- Involves:
 - Research component (writing PhD thesis)
 - Education component (training activities)
- Training activities: recognized need international collaboration on disciplinary courses (good example NOVA courses in Nordic countries)
- Participation of people from industry in postgraduate training:
 - Opportunity for industry people to learn about new developments
 - Fosterings links between research and industry
- Need for (low-cost) system of coordination to ensure a wide range of courses



Continued education



- Grundtvig: Keep on learning
- “Important in knowledge-based economy”

Europe is undergoing a major transformation. Knowledge and the innovation it sparks are its most valuable assets in today's world economy. Lifelong learning and the accessibility and quality of Europe's education and training systems play a decisive role in the ambitious goal of transforming the EU into a dynamic, knowledge-based economy.

How to realise this in Animal Breeding?



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Animal Breeding specialist: need for a framework?

- **EACEA/06/09:** The European Qualification Framework (EQF) is a common European reference framework acting as a translation device to make qualifications acquired within the different education and training systems in Europe more readable and understandable
- It has two principal aims:
 - to promote citizens' mobility between countries and sectors
 - to facilitate their lifelong learning.
- Would an international qualification framework for continued education be helpful?



Continued education and Animal Breeding

- Recognized that there is a need for continued education
- Last year FABRE-TP formulated an EU-proposal in this area to:
 1. Look at best practices in other fields
 2. Inventory of needs among AB industries
 3. Creating a www-site to improve information on courses/training material
 4. Small number of training sessions to meet needs identified under 2
- Not funded: should we try again?



In conclusion

- Animal Breeding is a knowledge intensive sector which is operation in a field which is rapidly developing
- Animal Breeders carry an important responsibility
- How to best ensure that people in Animal Breeding industry are qualified for their job?
- Continued education: can only be reached through international collaboration



THANK YOU

Looking forward to your feed back:
during this meeting or send your reaction to Fabre-TP
(Anne Marie Neeteson)



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