

An international list of genotyped animals

Donagh Berry et al.

Teagasc, Moorepark, Ireland

donagh.berry@teagasc.ie

INTERBULL Business Meeting, Riga 2010

Cooperation in genomic selection

- INTERBULL, Riga - Cromie et al.
 1. No cooperation
 2. Sharing of information on genotyped animals
 3. Bilateral swapping of genotypes
 4. Multilateral sharing of genotypes

Objective of the list

To facilitate collaboration between countries on genomic selection:

- Increase the accuracy of national genomic evaluations by increasing the training population
- Avoid/reduce duplication of genotyping and save money
- Important for countries that have genotypes and those planning to genotype

The Plan

- March 2009
- Develop a list of genotyped bulls or with DNA or semen available that could be swapped (in Excel)
 - IRL, ESP, GBR, ITA, BEL, CHE, POL, JPN, AUS, ISR, RSA, NZL (LIC)
- Later expanded to also include populations that may consider swapping in the near future (US & Canada)
- INTERBULL forum set up

Clarity

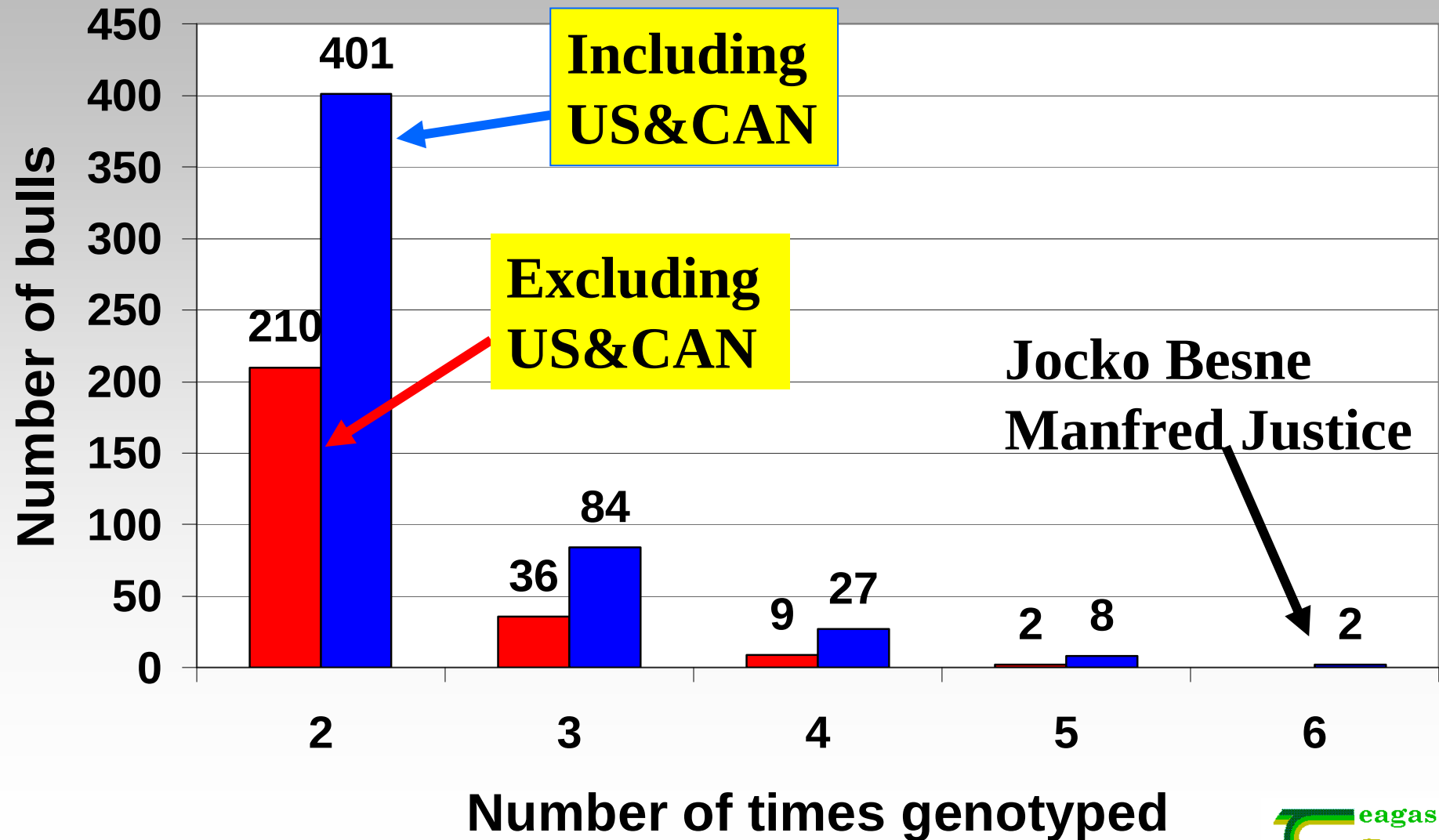
- Participation in the list does NOT mean sharing of genotypes
- Swapping of genotypes is done through bilateral agreements between individual countries
- Participation is open to all

Current Status

- IRL, ISR, JPN, AUS, CHE, POL, ITA, US & CAN, NZL (LIC) have genotypes

	Including USA-CAN	Excluding USA-CAN
Genotyped	30,643	13,285
With MACE for prod.	20,739	11,801
Animals genotyped >1	522	257
Sum of redundant genotypes	692	317
Squandered (€160/genotype)	€110,720	€50,720
Squandered (US\$200/genotype)	\$138,400	\$63,400

Number of times genotyped



What next?

- List needs to be maintained
 - INTERBULL
- Final format of List
 - INTERBULL
 - Interbull ID, SNPchip used, whether included in reference population (c-matrix of GMACE)....
- Advice on format for swapping of genotypes between countries
 - INTERBULL
 - Interbull ID, SNP name, Top allele 1, Top allele 2, clustering score

Proposition

- List of genotyped animals can be a useful tool to facilitate collaboration between countries
- Adopt it just as another file routinely updated and distributed by INTERBULL

ICAR 2012 CONFERENCE

**CORK
IRELAND**

Mon 28th May
- Fri 1st June 2012



www.icar2012.ie

