



UNIVERSITÀ  
CATTOLICA  
del Sacro Cuore



# Ethical aspects of breeding: may be limited to genetics alone?

Bertoni Giuseppe<sup>1</sup>, Soriani Nazzareno<sup>1</sup>, Chatel Augusto<sup>2</sup>,  
Turille Germano<sup>2</sup>, Calamari Luigi<sup>1</sup>

<sup>1</sup>*Istituto di Zootecnica - Facoltà di Agraria - Università Cattolica del Sacro Cuore – 29122 Piacenza (ITALY)*

<sup>2</sup>*Institut Agricole Régional, Rég. La Rochère, Aosta (ITALY).*

# INTRODUCTION

Good life conditions and health can ensure both  
**WELFARE** and suitable **PERFORMANCES**  
but  
Genetics and **breeding technology** must be  
“paralleled”

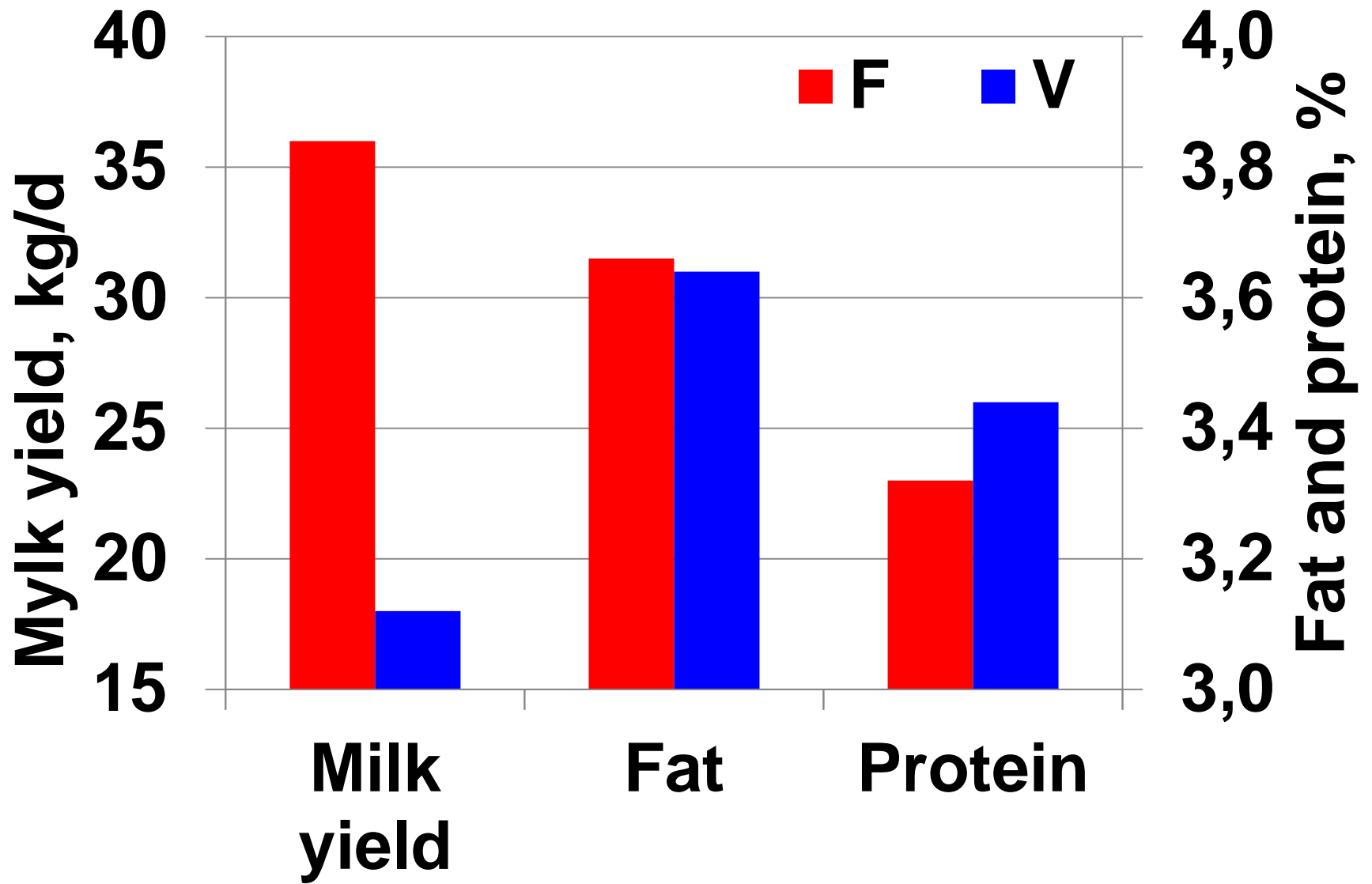
## AIM

**Aim of the paper is to show that dairy breeds with extremely different milk yield, when kept in proper conditions, can experience a good welfare.**

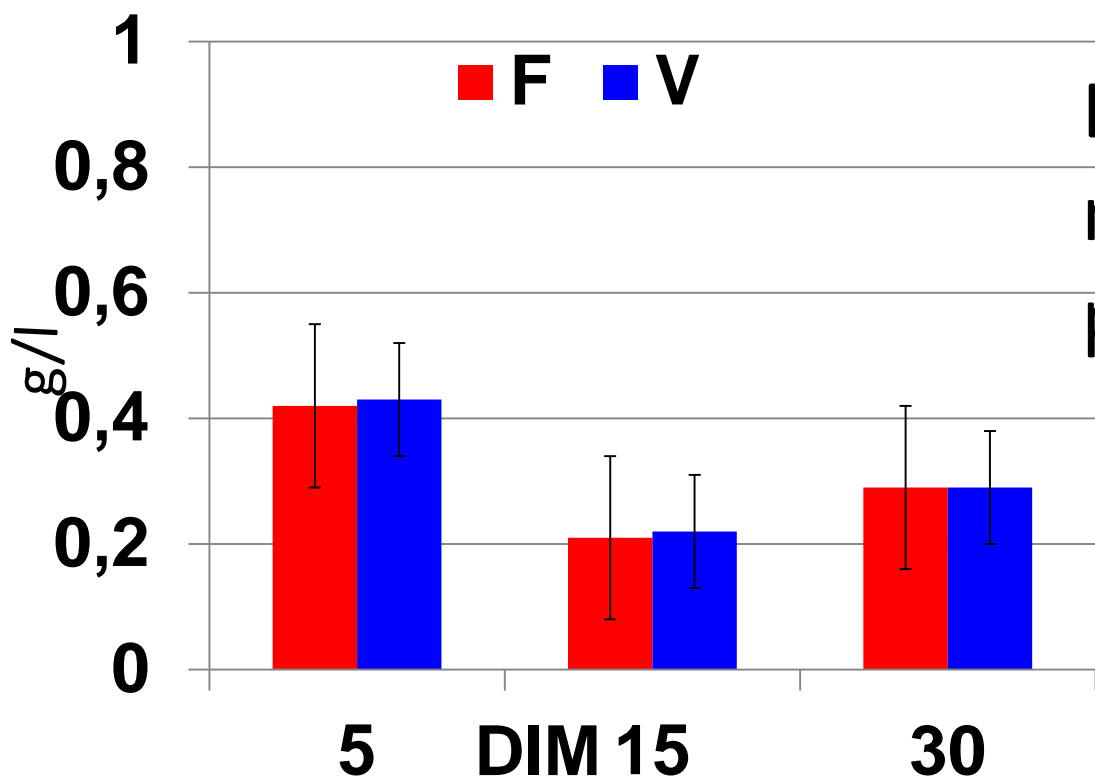
# Materials and Methods

- Two **farms**: natural or high technology
- Two **breeds**: Valdostana or Friesian (italian)
- Two **yield levels**: 18 or 36 kg/d  
both **properly managed**.

**Checks**: milk yield and composition, health (and blood analysis), fertility and WELFARE evaluation with **our model IDSW** (only Friesian)

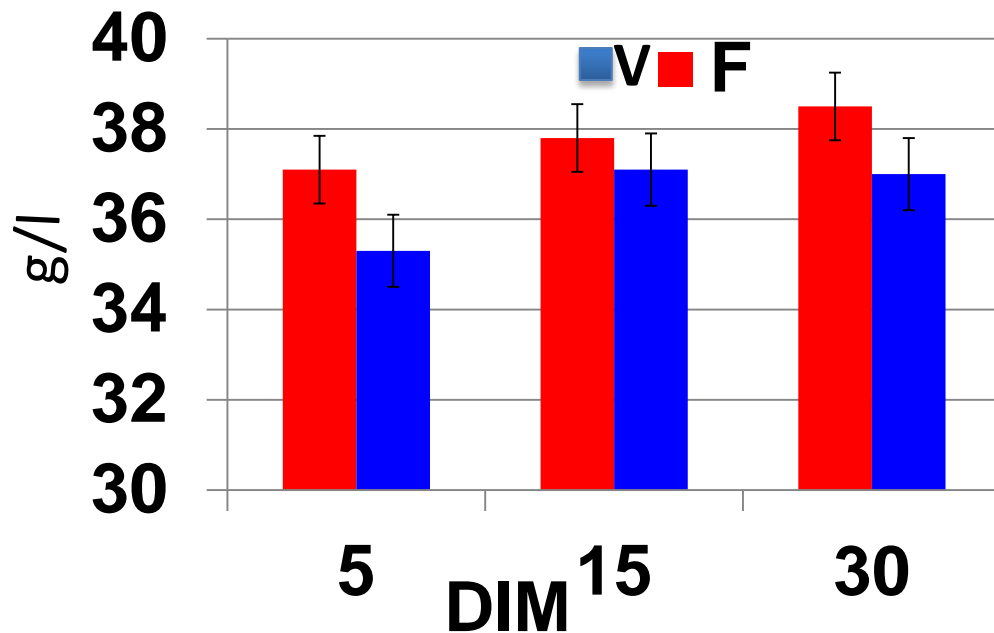


Except milk yield....its quality...also health (SCC)

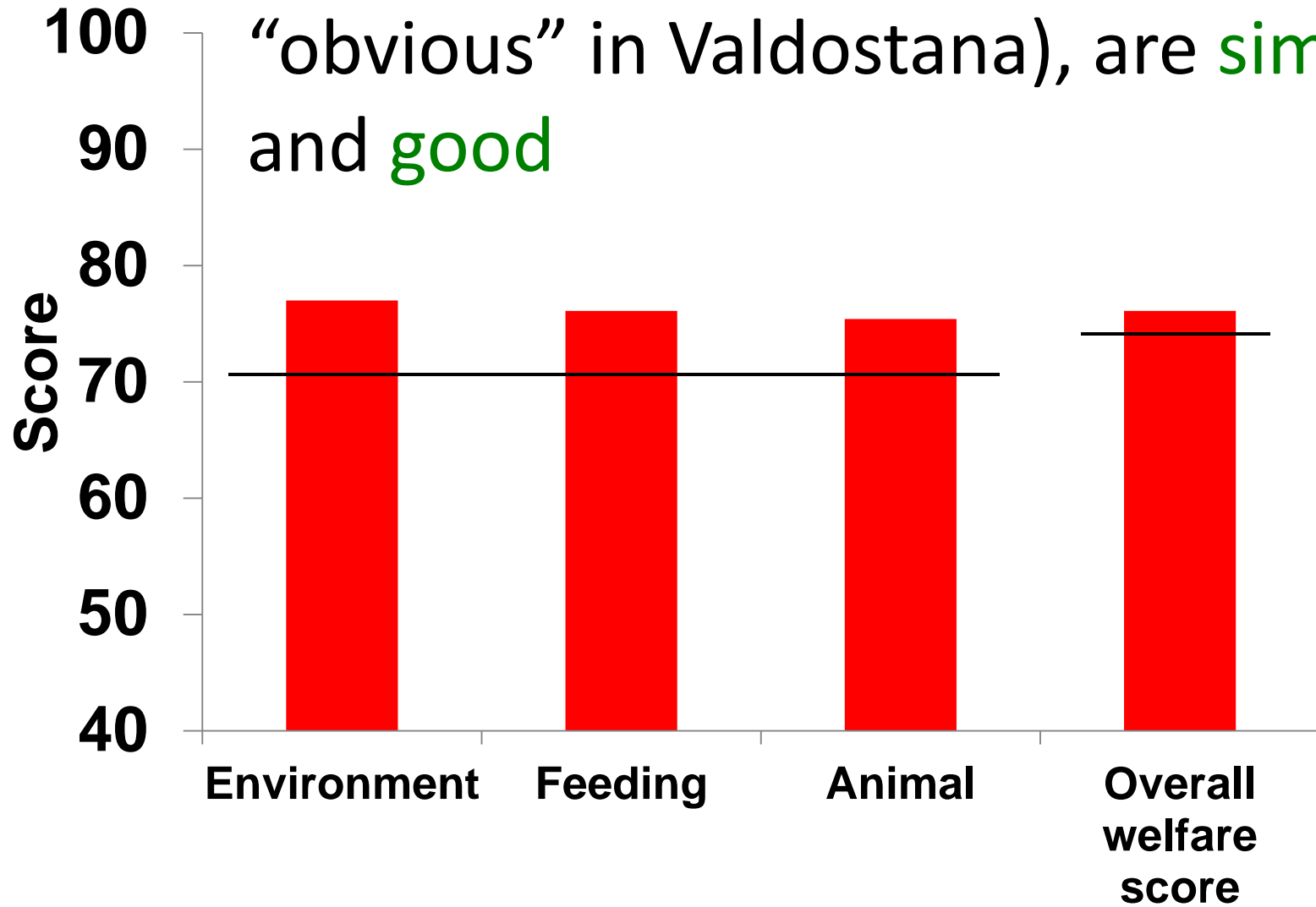


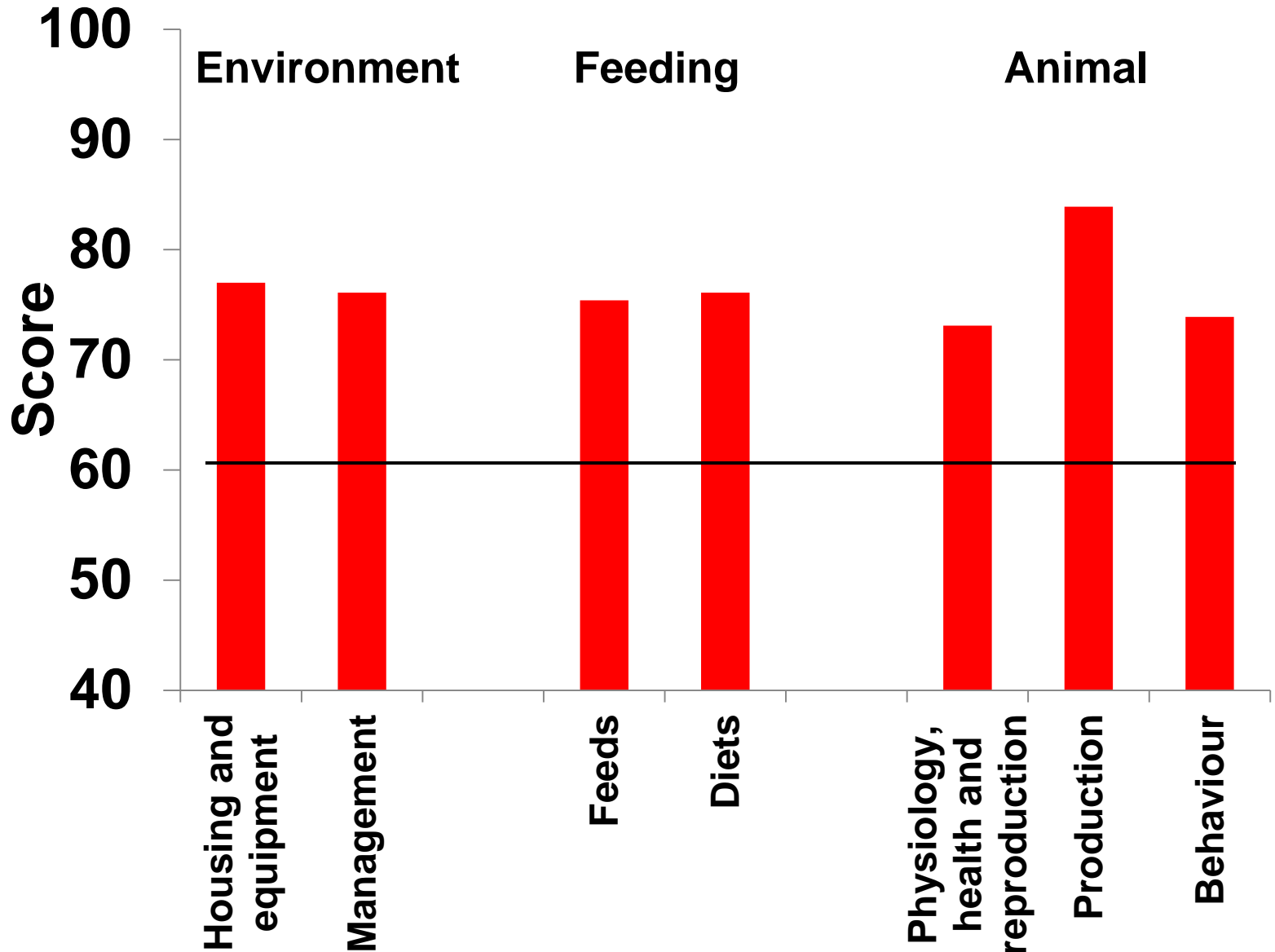
Blood indexes and  
namely inflammatory  
parameters (APP + or -)

**ALBUMINS**



As well as **WELFARE** (IDSW in Friesian, “obvious” in Valdostana), are **similar** and **good**





All aspects, **fertility** included, were above model **threshold**

# CONCLUSIONS

Our results suggest that the judgement of breeding effects can only be expressed if the “high genetic merit” animals are kept in suitable conditions (feasible). High milk yield is not per se cause of lower welfare, but it can not be the only index of performance.



- Thanks to you and to my coworkers
- Questions?