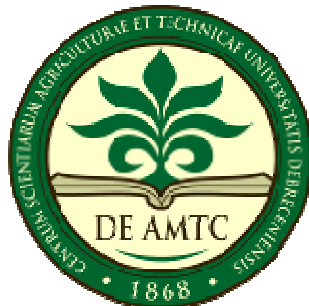


Milk production of Jersey×Holstein and Brown Swiss×Holstein crossbreds compared with their Holstein contemporaries

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Session 21

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Introduction

- decreasing dairy cow population
- increasing milk production
- traits of selection

? re-definition of selection indecies

? crossing

Crossbreeding?

- favorable alleles
- heterosis

Efficiency, reproduction and longevity

(Madgwick and Goddard, 1989; McAllister, 2002)

Breeds: Ayrshire, Brown Swiss, Jersey.

- (1) strong selection
- (2) yield
- (3) heterosis
- (4) maternal performance - decreased additive effects

(McAllister, 2002)

- Jersey:
concentrated milk: 4.5-6.5% milk fat,
3.4-4.2% milk protein
Horn, Artúr 1954 – milk price
- Brown Swiss:
big frame,
milk composition: 4.2-4.5 % milk fat
3.4-3.6 % milk protein

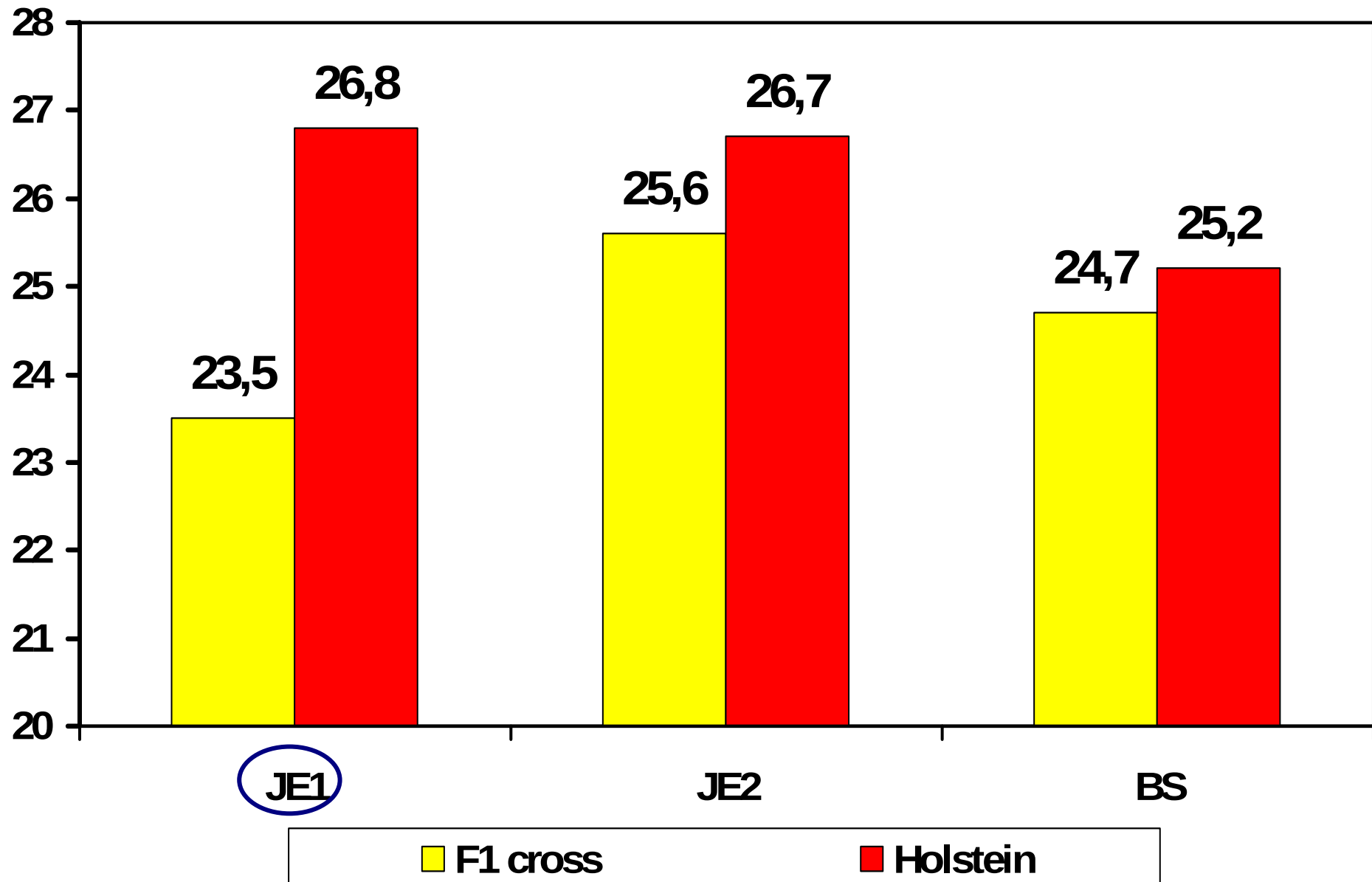
Methods and Materials

- 194 lactations, 01.01.2006. – 31.12.2007.
- Crosses – contemporary Holstein-Friesians
- Jersey
 - JE1: 11 F1 35 HF
 - JE2: 8 F1 64 HF
- Brown Swiss
 - BS: 37 F1 39 HF
- Age at first calving,
- 305 d milk production
(milk kg, fat%, protein%, fat kg, protein kg, total milk solids)
- Days in milk
- Persistency
- Independent samples t-test

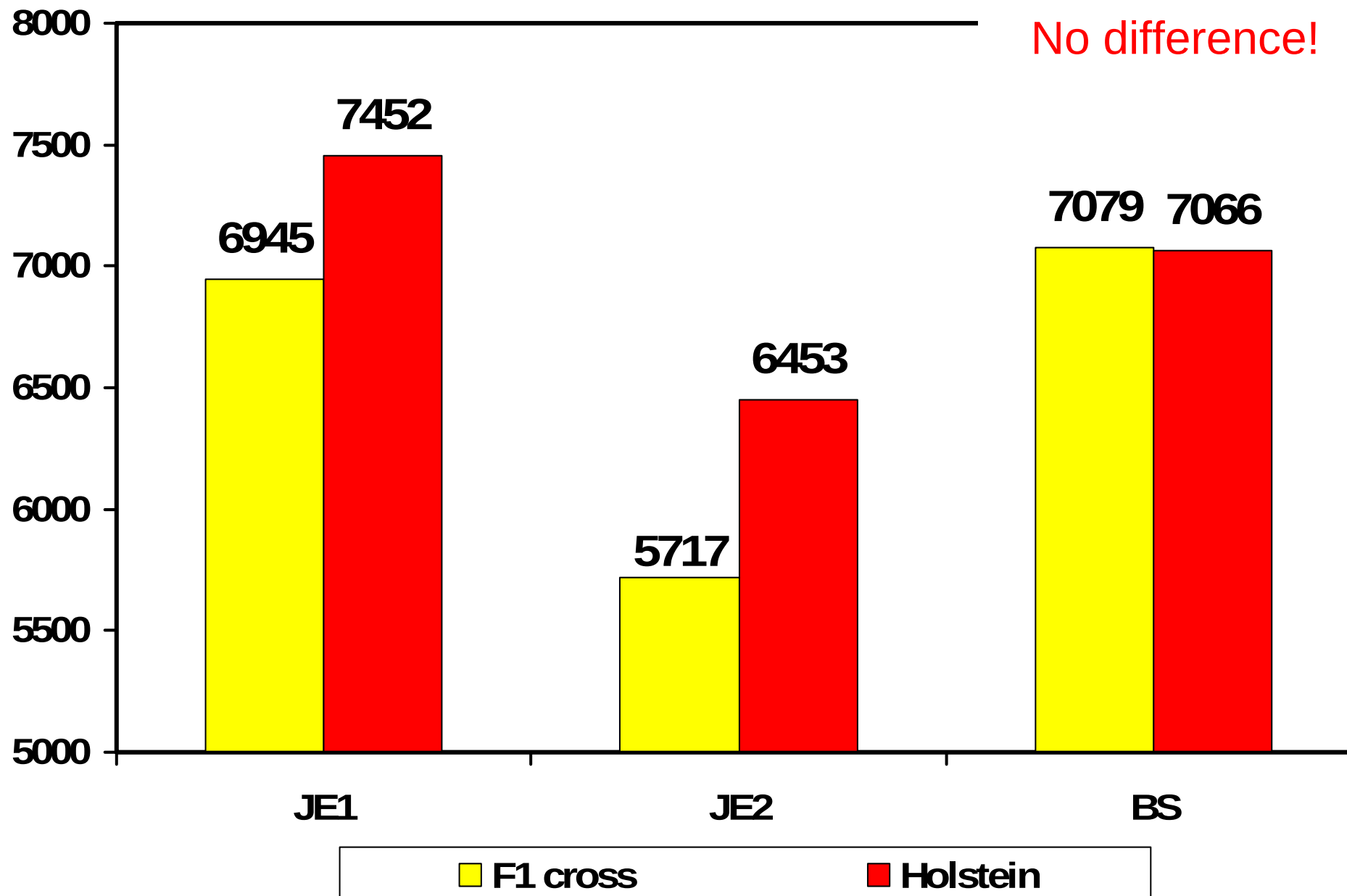
Results



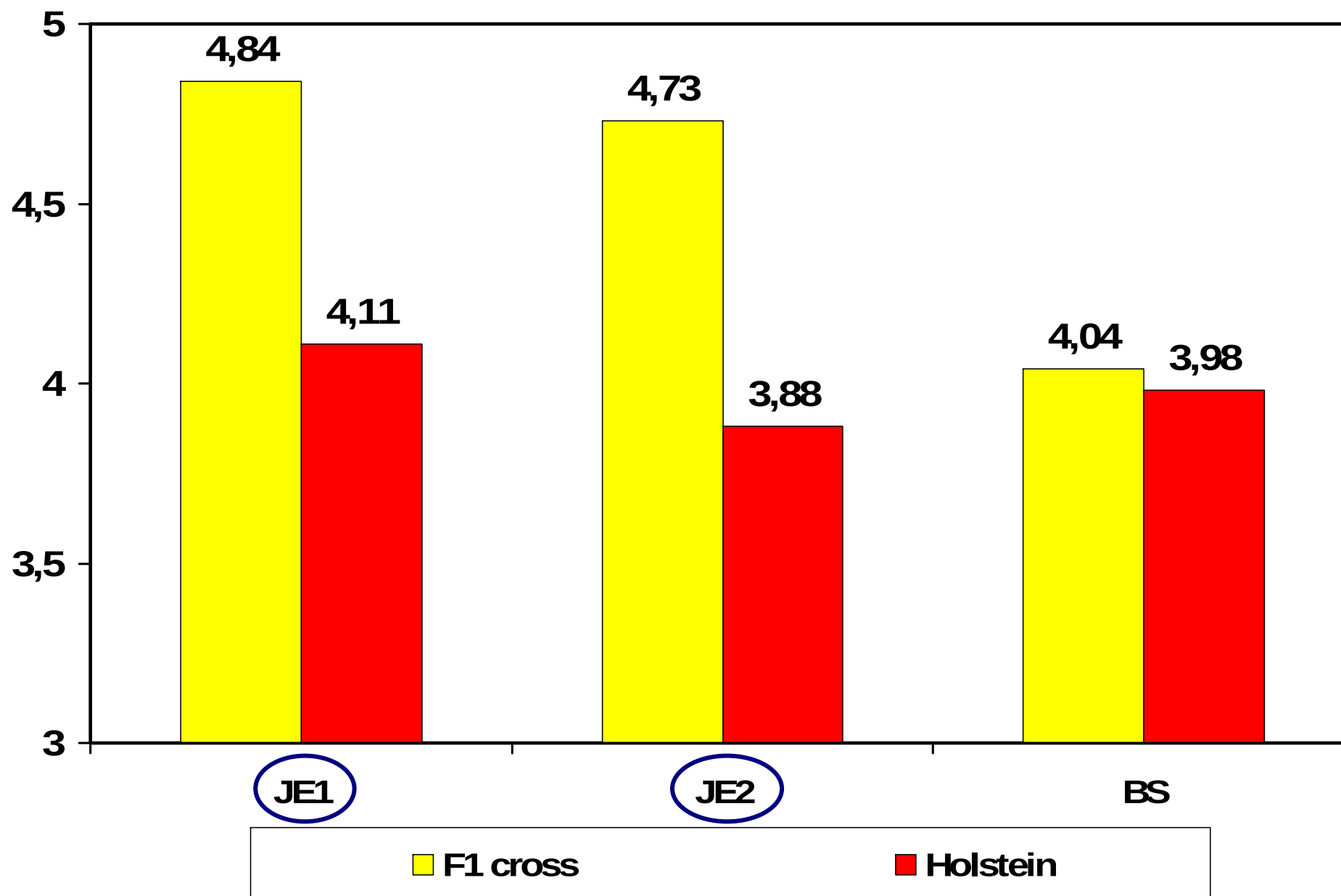
Age at first calving (month)



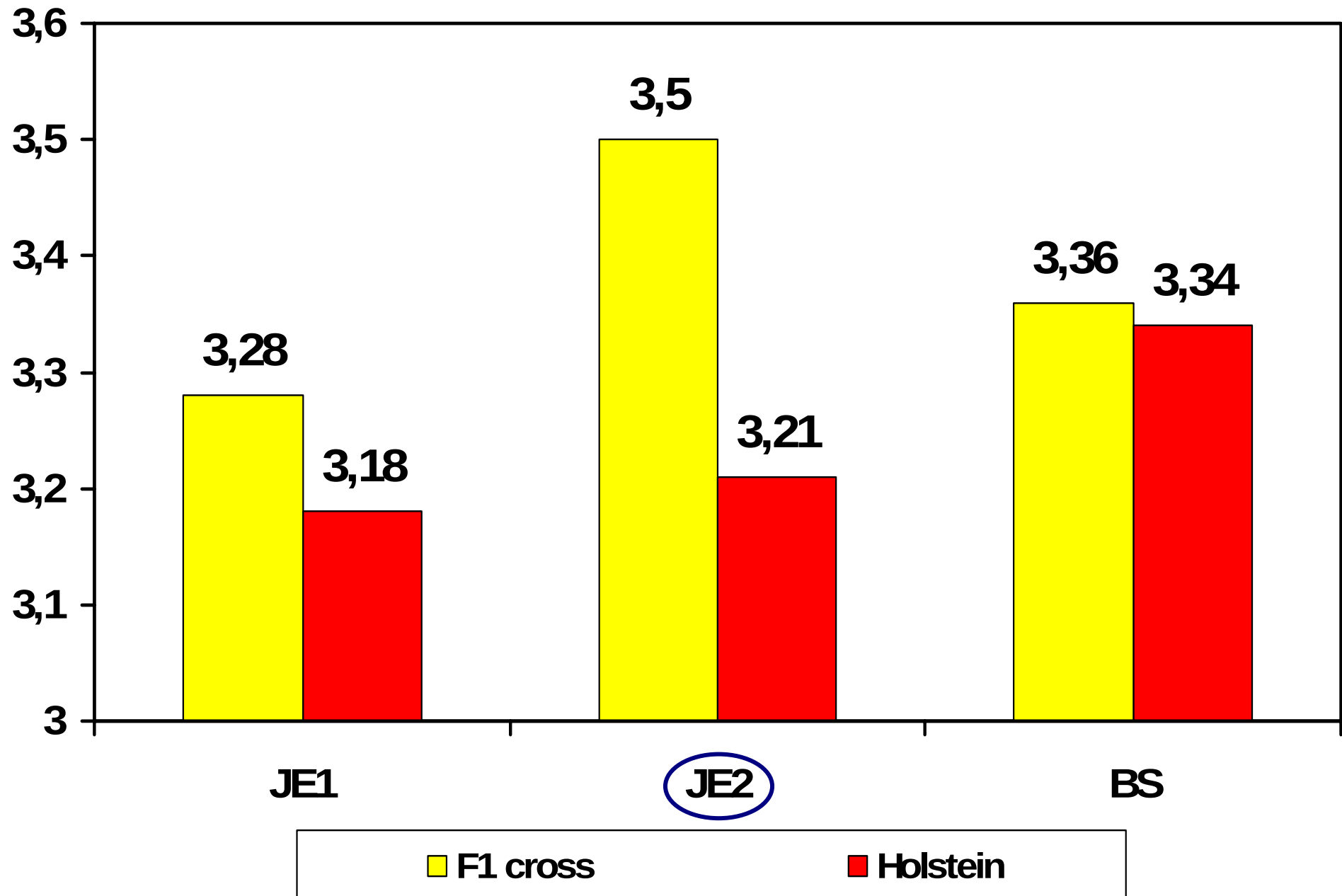
305 d milk production (kg)



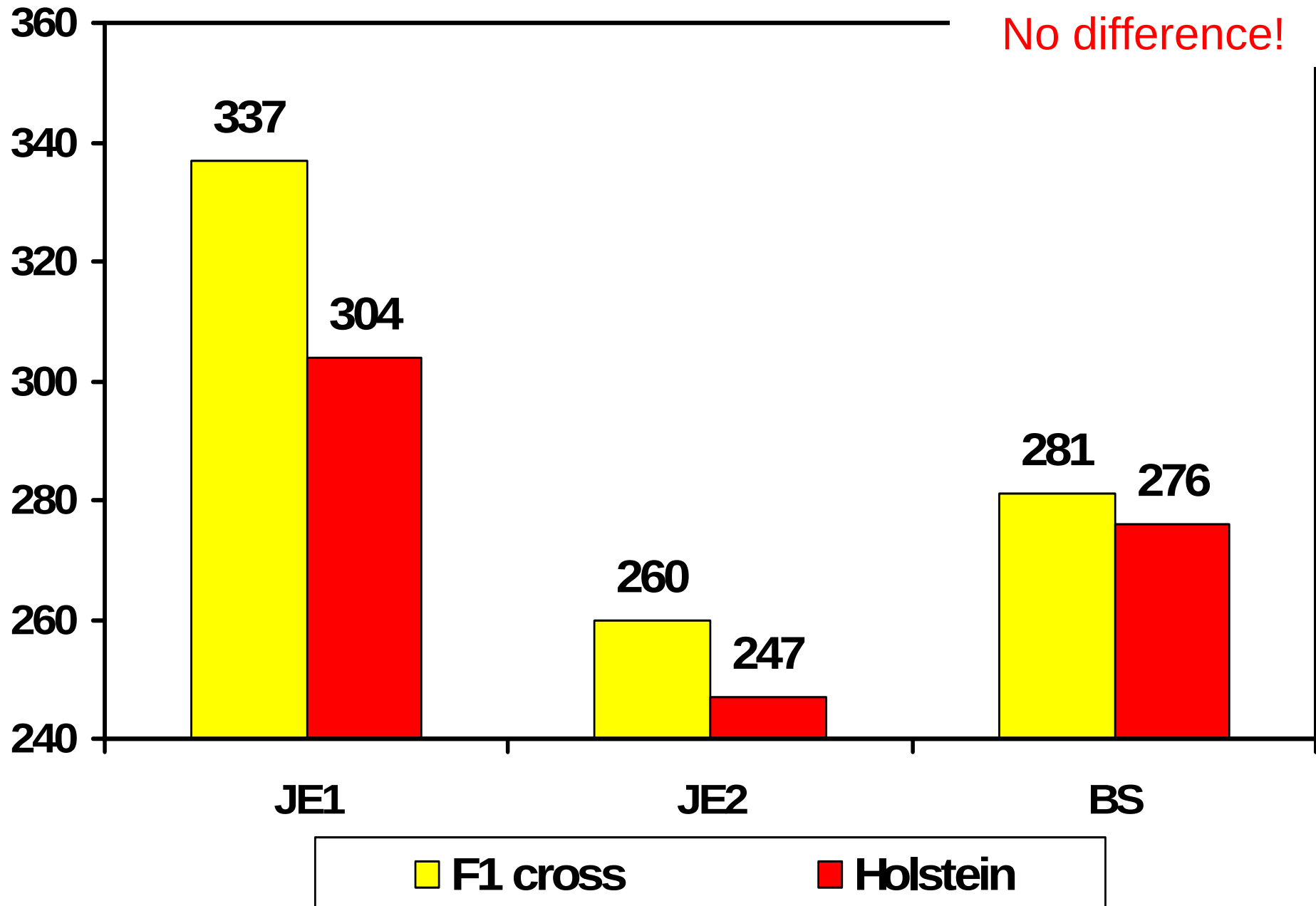
305 d production – fat %



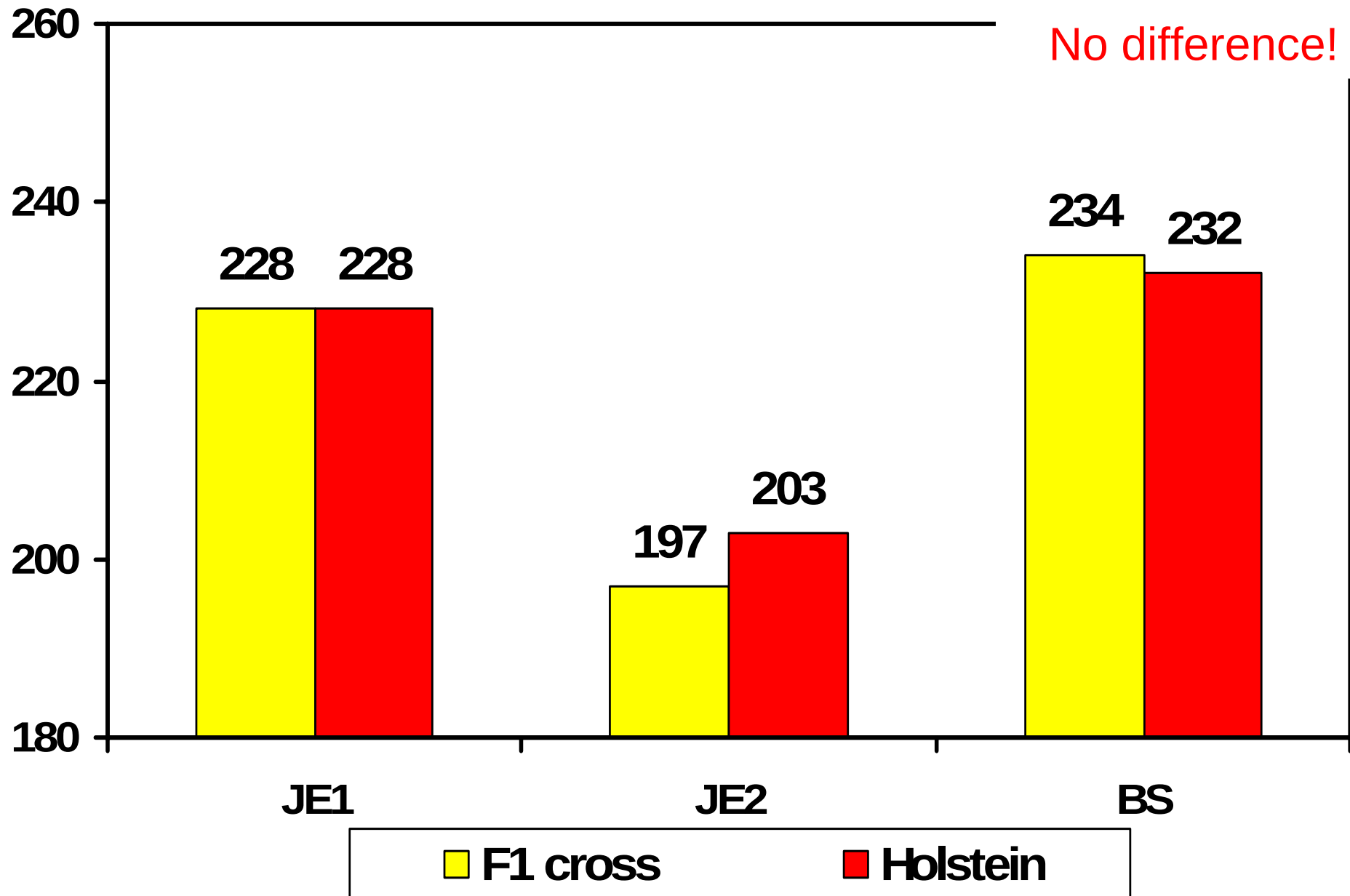
305 d production – protein %



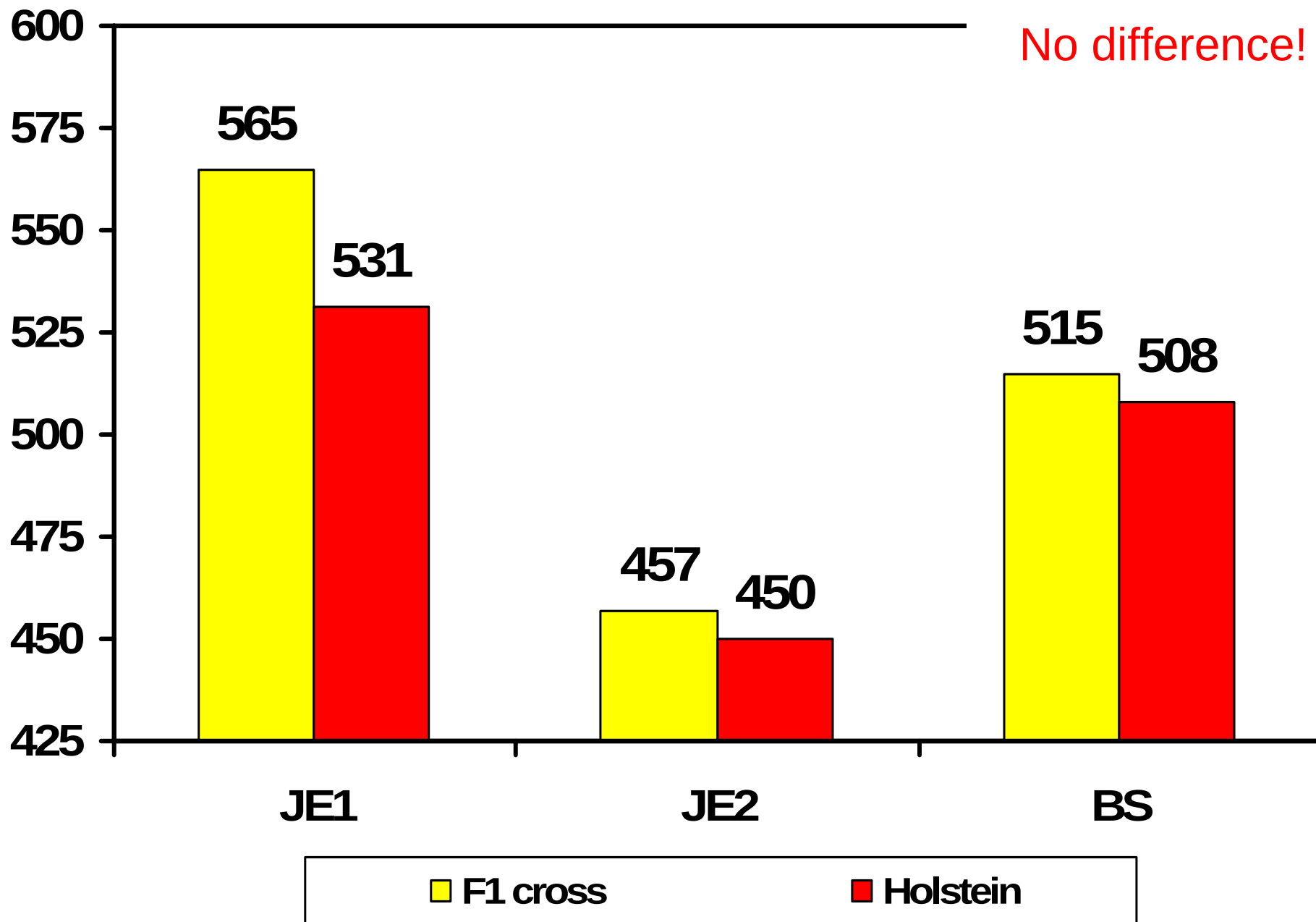
305 d production – fat kg



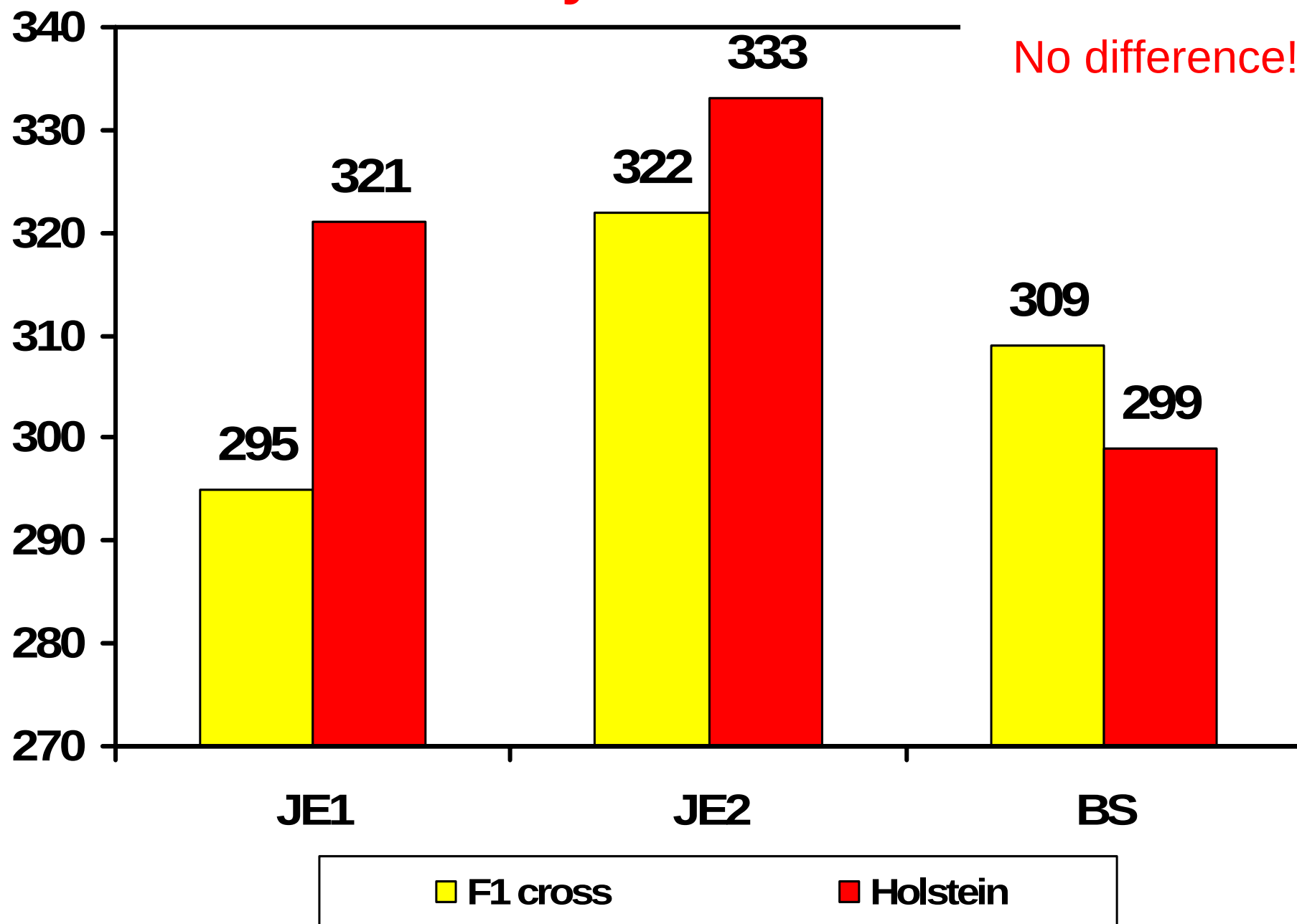
305 d production – protein kg



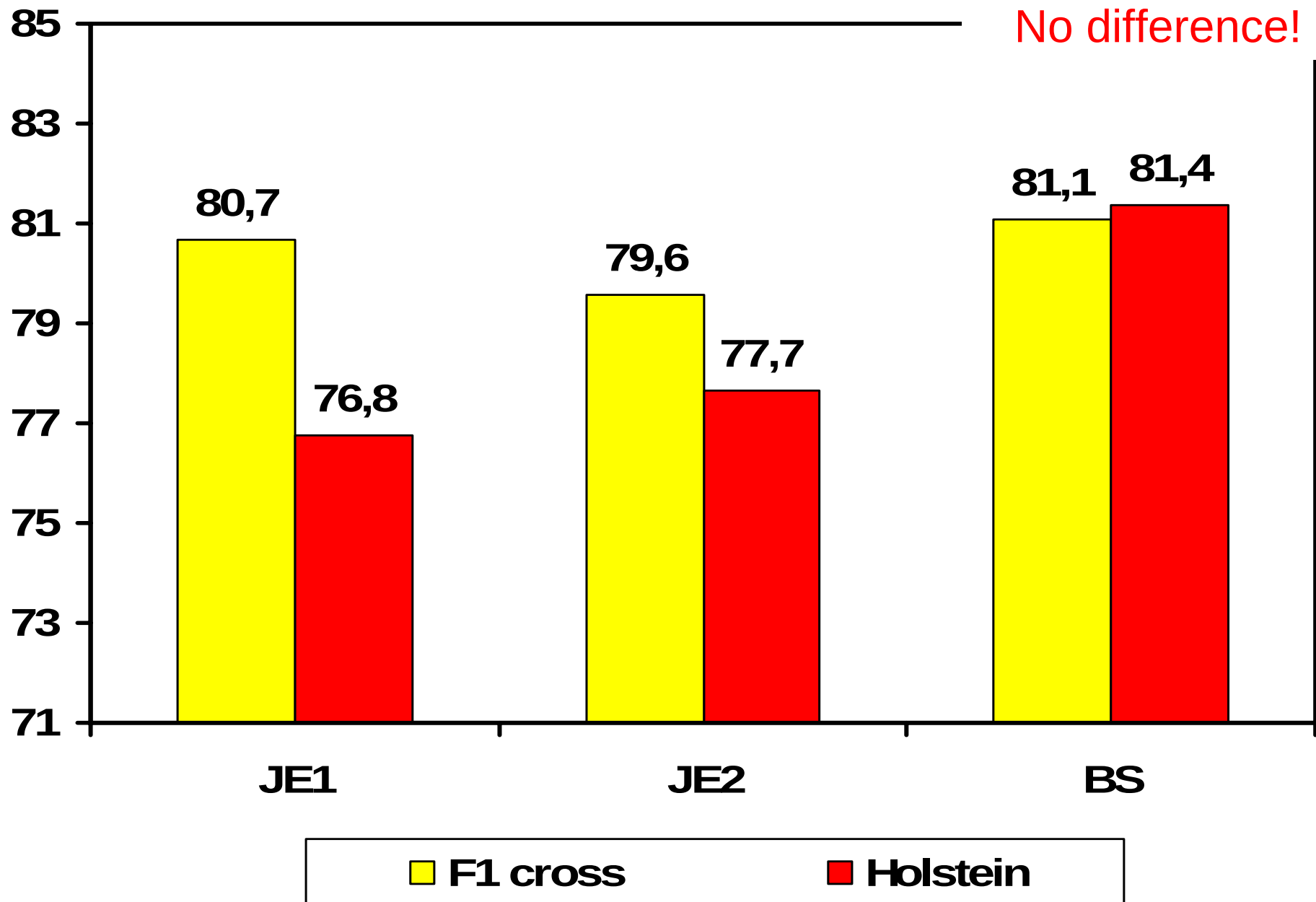
305 d production – total milk solids kg



Days in milk



Persistence (%)



Conclusions



1. Crossed heifers can be bred younger
2. Milk production – no difference
3. Milk fat and milk protein production – no difference
4. Most milk solids: jersey F1 (565 kg)
5. Milk production data + economical assessment = which genotype is more profitable?

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