

Monthly milk records: the basis of a new valued extension service for an efficient management

Bérénice Huquet ^(1,2), Hélène Leclerc ^(1,2), Vincent Ducrocq ⁽²⁾

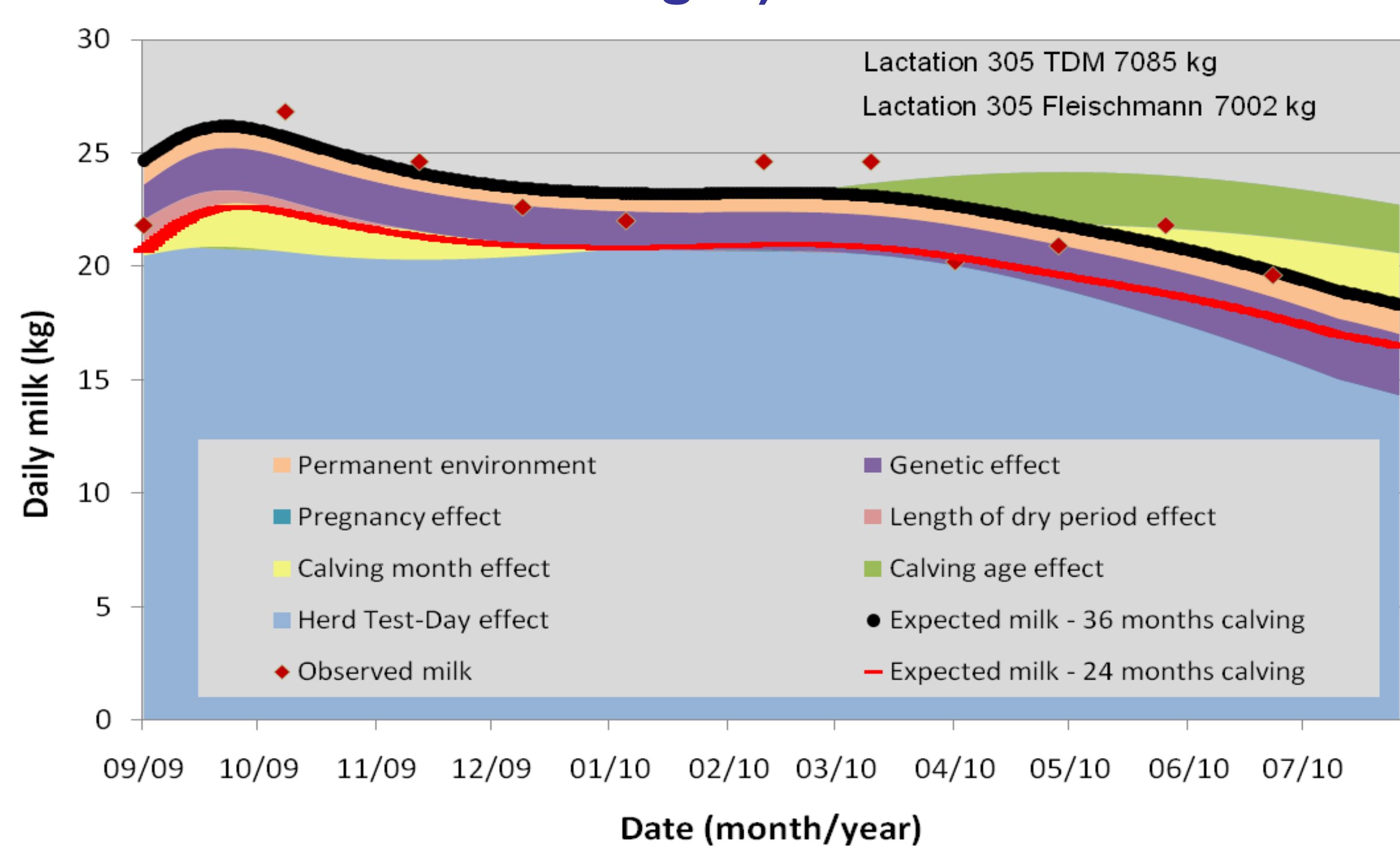
(1) Institut de l'Elevage • 149, rue de Bercy • 75012 Paris • France – (2) UMR 1313 (GABI) • INRA • 78352 Jouy-en-Josas • France

Context:

- Needs for new management tools
- Test Day Models : monthly milk records explained by factors such as age, month of calving, length of dry period, gestation, genetic level depending on lactation stage and a measure of production environmental effect : the **Herd Test-Day** effect (HTD)

Four main applications of Test-Day Model results:

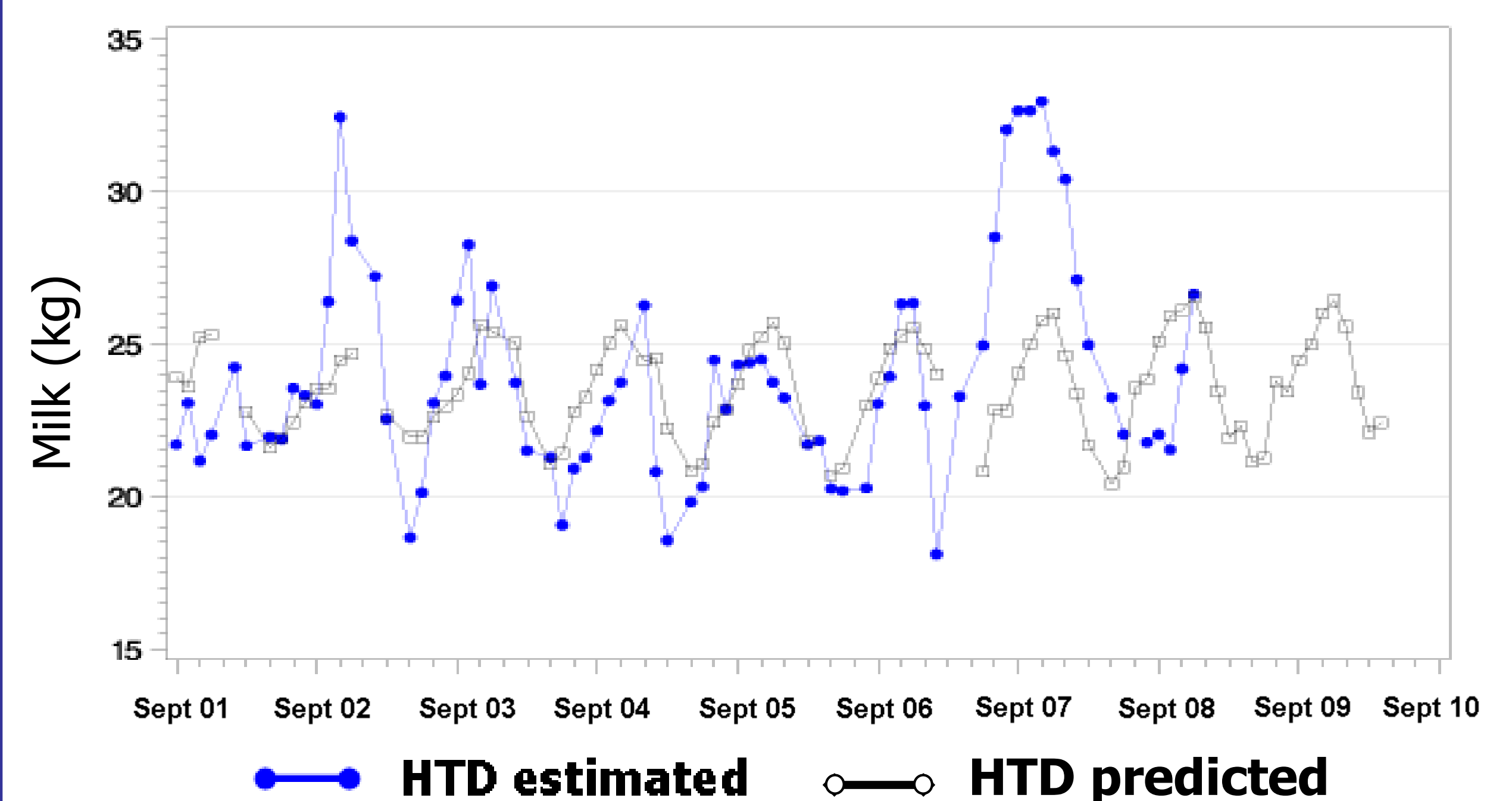
① To forecast future animal production from environmental effects (predicted HTD, age and month of calving...) and animal effects



② To simulate the impact of management changes (calving period, age at first calving...) through a precise decomposition of lactation

Ex: simulation of a cow calving at 2 instead of 3 years of age (red line in the upper figure)

③ To compare predicted HTD with real ones



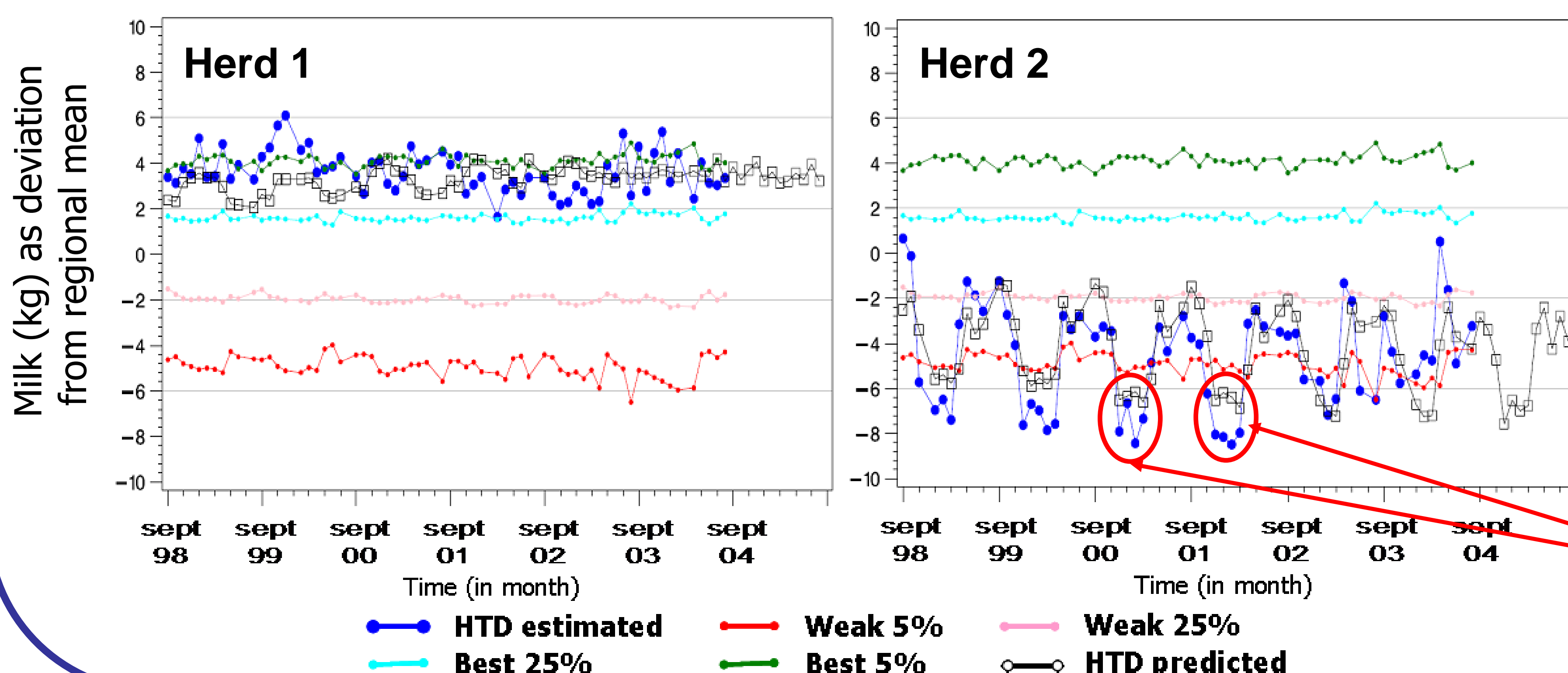
Real vs expected production due to short term environment effect (real vs expected HTD).

Observation : increase of HTD (till +8kg of Milk) at the end of 2007

Interpretation : adaptation of herd management to produce more milk due to a large increase of milk price

④ To highlight herd management strengths and weaknesses through Herd Test-Day pattern comparison

2 herds with very different milk HTD patterns (expressed as a deviation from the regional mean)



HTD pattern comparison:

Herd 1 : stable milk production, high level : 4kg/d more than regional means

Herd 2 : Poor management (between -2kg/d and -8kg/d), especially during the winter

⇒ displays areas for improvements

Conclusions & perspectives:

- Test-Day Models give keys for the development of new herd management tools.
- The diversity of HTD patterns reflects the diversity of herd management.
- HTD patterns are the basis of a new typology of herd management

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