





"The use of biomarkers in milk for dairy farming"

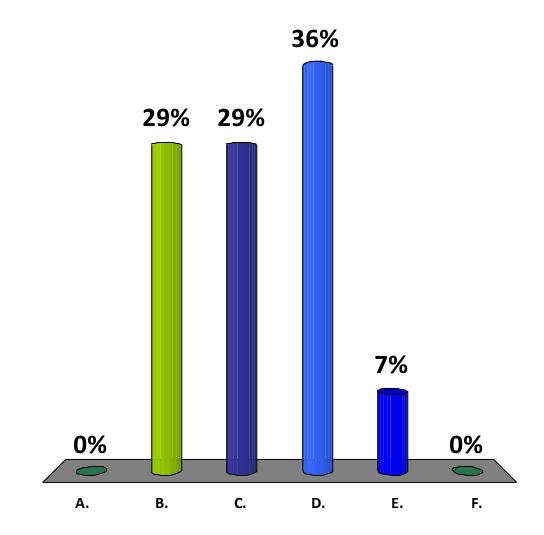
Ghent, 26 september 2016

I. The current uptake and use of 'biomarkers in milk' today.



I. How much is the information gained from currently available 'biomarkers in milk'(*) being used today by dairy farmers? (interpretations and warnings based on protein/fat, acetone or BHBA, urea, conductivity ~ mastitis)

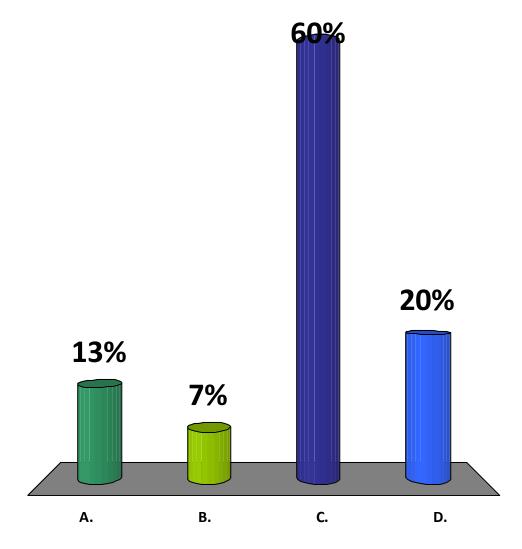
- A. Not at all.
- B. Limited uptake by innovators (< 5 %).
- C. In early adoption phase (5 < x < 15 %).
- D. Early majority (15 < x < 50 %).
- E. Late majority (50 < x < 75 %).
- F. Only some left behind (> 75 %).



II. How much innovation in your business is driven by 'biomarkers in milk' or information derived thereof?

(e.g. adjustment of diet or compound feed formulation; development of analytical techniques; development of additional advice services; ...)

- A. Not at all.
- B. Not so often.
- C. Often.
- D. All the time.







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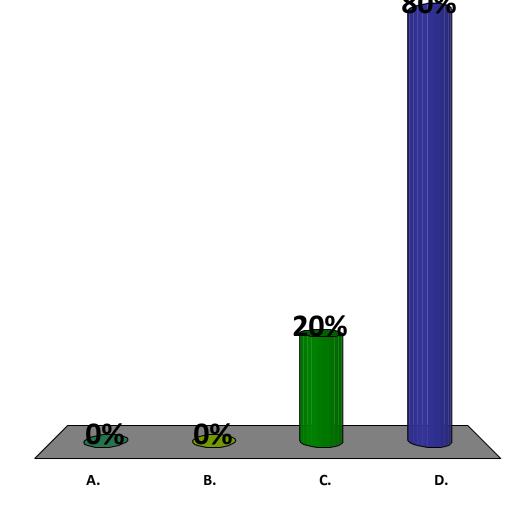
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II. The biggest opportunities in the future regarding this technology.



III. What do you consider as a priority for future investments?

- A. Integration of additional biomarkers in the current MPR system to increase accuracy of diagnosis.
- B. Extension of biomarkers & sensors in robot systems.
- C. Digitalisation of other data (e.g. info on feed intake & characteristics).
- D. Better integration and interpretation of data that is currently available (big data management).







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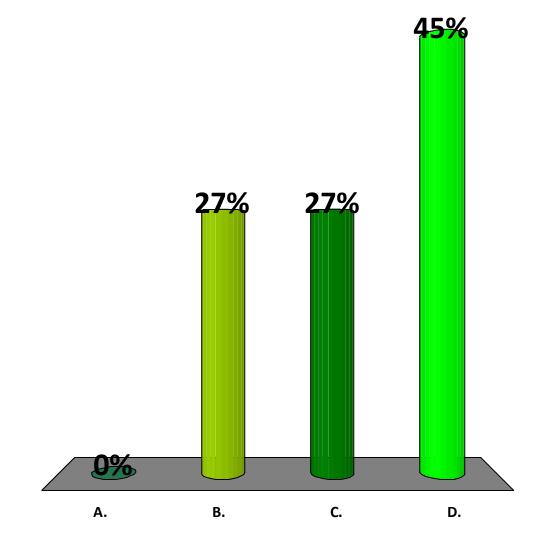
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III. The possible use of biomarkers in the foreseeable future.



IV. For which purpose do you consider (additional) biomarkers most interesting (in the future)?

- A. Improved heat detection.
- B. Improved/earlier on line detection of mastitis.
- C. Detection of or (if possible) early warning for risk of acidosis.
- D. Detection of or (if possible) early warning for risk of ketosis.









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IV. The challenges related to the use and further implementation of (additional) biomarkers.



V. What do you consider the biggest problems/challenges related to the introduction of new/additional biomarkers?

- A. Cost.
- B. Accuracy (e.g. too many 'false positives').
- C. Information overload.
- D. Others.

