

## **Adopting automated activity measuring technologies on farm, what to do and what not to do, with special focus on economics**

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The list of Precision Dairy Farming technologies used for animal status monitoring and management continues to grow. Despite widespread availability, adoption of these technologies in the dairy industry has been relatively sparse thus far (Gelb et al., 2001, Huirne et al., 1997). Perceived economic returns from investing in a new technology are always a factor influencing technology adoption. Additional factors impacting technology adoption include degree of impact on resources used in the production process, level of management needed to implement the technology, risk associated with the technology, institutional constraints, producer goals and motivations, and having an interest in a specific technology (Dijkhuizen et al., 1997, van Asseldonk, 1999). In a survey of Kentucky, USA dairy producers, the most frequently listed reasons for not adopting technologies were (1) not being familiar with technologies that are available (55%), (2) undesirable cost to benefit ratios (42%) and (3) too much information provided without knowing what to do with it (36%). Producer responses indicated daily milk yield and cow activity technologies were the most widely adopted. In another survey of producers around the world, benefit to cost ratio, total investment cost, and simplicity and ease of use were the most important considerations when purchasing a technology. Producers perceived mastitis, standing heat, and daily milk yield as the most important parameters to monitor. Because of the gap between the impact of Precision Dairy Farming technologies in research versus commercial settings, additional effort needs to be directed toward implementation of management practices needed to fully utilize information provided by these technologies. To gain a better understanding of technology adoption shortcomings, additional research needs to be undertaken to examine the adoption process for not only successful adoption of technology but also technology adoption failures. Before investing in a new technology, a formal investment analysis should be conducted to make sure that the technology is right for your farm's needs. In addition to the survey work above, practical experiences adopting automated monitoring technologies in both research and commercial settings will be discussed in this presentation.

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