PRECISION DAIRY FARMING TECHNOLOGY USE, PREPURCHASE CONSIDERATIONS, AND USEFULNESS BY BRAZILIANS TOP 100 PRODUCERS

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Automation technologies and sustainable intensification allow to increase the efficiency of milk production systems. The objective of this study was to identify, qualify and quantify the motivations for the adoption, importance and utility of the precision dairy farming (PDF) technologies in use in Brazil's top 100 dairy farms. In March 2016 a survey questionnaire was created using Google Forms tool. The survey consisted of 11 close-ended questions focused on criteria for adoption, purchase decision and utility of PDF technologies. The PDF parameters most commonly measured by producers were daily milk production (58.7%), body weight (28.3%), cow activity (28.3%) and mastitis (26.1%). The milk composition obtained only the tenth position. The lack of milk solids payment to the producers may explain this result. According to the purchasing decision criteria, where 1 is less important and 5 is higher, the cost/benefit ratio was the most important criterion in the purchase decision (4.64) followed by the availability of technical assistance (4.61). Possible explanations are that most of the PDF technologies available in Brazil are imported and the lack of availability of technical assistance are relevant concerns. The producers considered daily milk production (4.67), estrus detection (4.43) and mastitis (4.26) as the most useful indicators among the current and potential parameters measured by PDF technologies. The most commonly used software was Ideagri (30.0%) followed by DairyPlan (17.5%) and Agenda 5.0 (12.5%). The last question from the survey was related to the priority issues faced on the farm. The problems considered priorities with potential to be solved with the adoption of PDF technologies were mastitis, caloric stress/animal comfort and labor high cost.

Keywords: dairy cattle, data management, milk production, precision agriculture, software