

**GREENFEED AND SNIFFER STANDARD OPERATING PROCEDURE (SOP) IN DAIRY AND BEEF CATTLE**

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Enteric methane emissions from ruminants are a major contributor to atmospheric greenhouse gas accumulation. Accurate measurement of methane production in ruminants is crucial to not only develop reliable national greenhouse gas emission inventories, but also evaluate mitigation strategies for methane emissions. Measuring actual enteric emissions in livestock is complex, expensive and time consuming. Many different research and industry bodies globally are investigating the feasibility and accuracy of a range of different techniques for recording enteric methane emissions. Amongst the techniques available, GreenFeed (*C-Lock Inc. Rapid City, SD, USA*) and sniffer systems are the most common. The objective of this study is to describe standard operating procedures for GreenFeed and sniffers in measuring enteric methane emissions in dairy and beef cattle leveraging the expertise and experience of those operating the equipment in a range of different settings; the procedures were shared and discussed through meetings organized by the ICAR Feed and Gas Working Group. Standard operating procedure items of interest include, amongst others, animal training protocols and adaption period length, number of animals per machine, equipment troubleshooting and upgrades. Experiences collected will be part of the ICAR Methane Emission Recording Guidelines update.