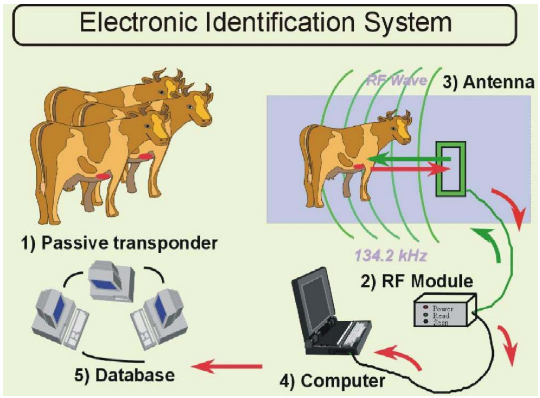
Ruminal bolus for electronic identification of a ruminant

Description

The present invention relates to the field of identification systems for livestock. In particular, it concerns a ruminal bolus for the electronic detection of ruminants.
A conventional ruminal bolus is mainly made up of a body including an electronic device for the storage and exchange of data with the exterior. It is usually to be housed in one of the stomachs or pre-stomachs of the ruminant. For such aim, a bolus needs to have a certain density; the provision of a metal mass is one of the solutions utilized to increase the bolus density, even if it entails problems of interference with the radio-frequency transmissions. Moreover, boluses tend very often to finally locate in the ruminant rumen, thus negatively affecting the reading efficiency, due to the rumen size.
This innovative bolus has a body made up of alumina and silicia based material, thus providing a high density and high resistance to the juices and digestive processes of the pre-stomachs. Contrary to metal-based bolus, the material used is non-magnetic and does not interfere with the radio-frequency transmissions. Moreover, such type of materials can be easily utilised in mass production processes and its features can be further optimized by adding other compounds (e.g. MgO, BaO, Na2O etc.).
The present invention is mainly intended for ruminants living in a farm environment (bovines, buffaloes, sheeps and caprines) or in a wild state (e.g. reindeers and deers) and, according to its variants, can be used both with animals having a heavy weight (more than 25 kg) and with those with a lower weight (less than 25 kg).

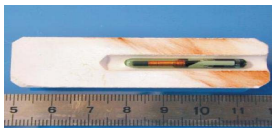


Innovative aspects and main advantages

➢ High-density bolus which allows reduced dimensions and a reliable fixing in the plexus of the ruminant, with an accurate location against the left rib wall behind the heart

➢ Non-magnetic character of the material used

➢ Technology adapted for low-cost mass production



Areas of application

➢ Identification systems for ruminants living in a farm environment or in a wild state.

Stages of development

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Non-exclusive licenses are available

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