

MULTIDISCIPLINARY APPROACH FOR THE SETTING UP OF A CONTINUOUS MONITORING SYSTEM IN DAIRY GOAT FARMS BY VOCALIZATION ANALYSIS

Riferimenti

Tipo di progetto

Gruppo Operativo

Acronimo

VOCAPRA

Tematica

Agricoltura di precisione

Information

Time frame

2019 - 2023

Durata

48 months

Partners (no.)

4

Regione

Lombardia

Comparto

Zootecnia - ovi-caprini

Localizzazione

ITC43 - Lecco

ITC48 - Pavia

ITC4C - Milano

Costo totale

€514.154,02

Fonte di finanziamento principale

Programma di sviluppo rurale

Programma di sviluppo rurale

2014IT06RDRP007: Italy - Rural Development

Programme (Regional) - Lombardia

Parole chiave

Animal husbandry and welfare

Sito web

<http://vocapra.lim.di.unimi.it/>

Project status

completed



Objectives

The project is included in the Precision Livestock Farming sector and aims at identifying the distinctive characteristics of the vocalizations of goats emitted in different contexts, in order to translate this information into the creation of an innovative IT tool for continuous and non-invasive monitoring of the animals. This will allow breeders to intervene promptly in case of need. Furthermore, the knowledge acquired through the project will allow to improve the inter-specific communication ability and, consequently, to improve the quality of the human-animal relationship.

Activities

The Innovation sub-project will be divided into AZ1 (continuous recording of the vocalizations and the behavior of the goats; analysis of the acoustic characteristics of the vocalizations in relation to the context of emission); AZ2 (assessment of the breeder's ability to interpret vocalizations and identify the context of emission, according to different levels of empathy); AZ3 (development of a specific innovative software based on the classification of beeps). Coordination and transfer of results are also foreseen.

Context

VOCAPRA arises from the need to make available to farmers knowledge and tools that make them able to respond more promptly to any problem that may occur on farm, both through an improvement in the direct understanding of the signals emitted by animals, and through the development of an automatic monitoring system. This system will facilitate the work of goat farmers, who are often represented by young farmers with great enthusiasm, but sometimes limited experience and little time to

Approccio multidisciplinare per la messa a punto di un sistema di monitoraggio continuo in allevamento caprini da latte mediante analisi delle vocalizzazioni

2/3

<https://www.innovarurale.it/pei-agri/gruppi-operativi/bancadati-go-pei/approccio-multidisciplinare-la-messa-punto-di-un-sistema>

monitor the animals, as they perform many tasks (from milking to the direct sale of the processed product).

Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	Università degli Studi di Milano - Dipartimento di Scienze Agrarie e Ambientali - Produzione, Territorio, Agroenergia	Via Celoria 2 20133 Milano MI Italy	02 50316589	direzione.disaa@unimi.it
Partner	Società Agricola Bagaggera S.r.l.	Via Bagaggera, 25 23888 La Valletta Brianza LC Italy		
Partner	Società Agricola Il Boscasso SS	Località Boscasso, 1 27040 Ruino PV Italy		
Partner	Società Agricola Il Colmetto dei Fratelli Agosti SS	Via Finilnuovo, 5 25050 Rodengo-Saiano BS Italy		

Pratiche abstract

Description

The VOCAPRA project will develop a specific software based on the classification of the acoustic signals, which can be of support to farmers, technicians and veterinarians for the automatic identification of the emotional state of the goats, thus allowing a rapid and timely intervention in case of necessity (e.g. pathologies, faults in the water or food distribution system, deliveries, etc.). The tool will be represented by a free downloadable app.

Description

Study of the mechanisms that regulate the acoustic communication between goats and humans, in order to improve the human-animal relationship

Description

Creation of a database containing samples of goat vocalizations representative of different emotional contexts / states; the database will be made freely available on the project website

Approccio multidisciplinare per la messa a punto di un sistema di monitoraggio continuo in allevamento caprini da latte mediante analisi delle vocalizzazioni

3/3

<https://www.innovarurale.it/pei-agri/gruppi-operativi/bancadati-go-pei/approccio-multidisciplinare-la-messa-punto-di-un-sistema>

Link utili

Titolo/Descrizione	Url	Tipologia
Sito web progetto VOCAPRA	http://vocapra.lim.di.unimi.it/	Sito web
Pagina Facebook	https://www.facebook.com/Vocapra-103198421194118/	Link ad altri siti che ospitano informazioni del progetto
Video degli interventi del convegno finale del progetto	https://www.youtube.com/playlist?list=PL_q2ijKMomK-1ovdz9JXNiwBUQjtteAVK	Link ad altri siti che ospitano informazioni del progetto
