



<p style="text-align: center;">Dottorato di Ricerca in Scienze delle Produzioni Vegetali e Animali PhD Programme in Plant and Animal Science Codice del Corso di dottorato/PhD code: DOT1335834 Coordinatore/Coordinator: Prof. Roberta BERNINI</p>
<p style="text-align: center;">Piano di attività/Activity plan</p>
Data/Date January 15th 2024
Ciclo/Cycle XXXIX
Dottorando/PhD student Drishti Sarkar
Posizione/Position <input checked="" type="checkbox"/> Con borsa di studio/With scholarship <input type="checkbox"/> Senza borsa di studio/Without scholarship <input type="checkbox"/> Riservata a dipendenti di enti di ricerca/Reserved for research center employees <input type="checkbox"/> Dottorato industriale/Industrial PhD <input type="checkbox"/> Altra tipologia/Other typology
Tutor/Supervisor: Prof. Nicola Lacetera
Affiliazione/Affiliation: DAFNE
Co-Tutor: Prof. Andrea Vitali
Affiliazione/Affiliation: DAFNE
Sede prevalente dell'attività di ricerca/ Main place of research : Università della Tuscia
Titolo dell'attività di ricerca/Research title Study on GHG emission released by manure and grassland through by using different models
Breve descrizione dell'attività di ricerca/Short description of the research activity (Max 10.000 caratteri, spazi inclusi/Max 10000 characters, included spaces) 1st year: The first year will be dedicated to the bibliographic study on GHG emissions from livestock systems. Furthermore, the first year will be also dedicated to the development of an experimental plan for the evaluation of emissions from manure and grazed soil. Specifically, the bibliographic research will be first aimed at studying methods for the detection of enteric methane in ruminants, of methane and nitrous oxide from livestock management, of nitrous oxide and CO ₂ from agricultural soils cultivated for the production of fodder and from pastures. This activity will be also aimed to delve deeper into the state-of-the-art relative to GHG monitoring techniques from livestock systems and to produce a review to be submitted to an indexed journal. At the end of the first year, an experimental protocol will be defined to verify the impact of some characteristics of the manure and/or grazed soil on GHG emissions. 2nd year: Development of analytical protocols to verify the GHG emission potential of manure and grazed soils. Implementation of field and laboratory tests to verify the emission potential of manure and grazed soils depending on the animal species, type of diet and environmental conditions. Visit qualified foreign research institutions for a period of 3 months in order to deepen specific analytical techniques useful for achieving the objectives of the research. 3rd year: Completion of experimental activities, data analysis and thesis writing
Attività formative/Training activities



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TUSCIA

DIPARTIMENTO
DI SCIENZE AGRARIE
E FORESTALI

Activities scheduled by the teaching staff

Firma (Tutor)/Signature (Supervisor)

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Firma del Dottorando/Signature (PhD student)

Drishti Sankar