#### Institution of Agricultural Engineers South East Midlands Branch



#### Student Presentations + branch AGM Monday 8 February 2021 19.00 By Zoom

# **Lotachi Vivian Agbonghae** Use of Biostimulants and Surfactants in turf grass management.

Microbial biostimulants and surfactants may enable a more sustainable approach to turf-grass management; however, their effects on turf quality and soil microbial response are largely unknown. This research investigated the effects of seven selected biostimulants and two surfactants on turf quality and root-zone microorganisms using randomised replicated field-trial data.



## **Sophia Bahddou** Reduce soil and water losses by improving soil physical properties

Soil erosion is a serious agro-environmental threat, considered as major constraint to crop productivity. This project is directed at understanding the processes of water and wind erosion and its impact on soil and water resources, as well as finding effective measures to control these losses by improving soil physical properties.



## **Okelani Aworabhi** Biostimulants for Plant Growth and Microbial Development in Agricultural Soils

The need to proffer solutions for sustainable food security has led farmers to seek novel approaches in agriculture. Biostimulants are formulated with naturally occurring substances and/or micro-organisms to stimulate the soils natural processes. This research investigates the mechanism and effects of using a combination of biostimulants on plants biomass.



## **Joseph Martlew** Quantifying and alleviating subsoil compaction in arable soils

Utilising a combination of laboratory research and NIAB's long-term field experiments, we have examined the impact of soil management on subsoil compaction and the potential of cover crops to alleviate subsoil compaction. Alternative approaches to characterise subsoil compaction have been investigated to improve assessment in the field.



**Lucie Maskova** Best Management Practices to Alleviate Deep-Seated Compaction in Asparagus Inter-rows

Field operations associated with UK asparagus production (re-ridging and intensive foot trafficking) can result in severe compaction of the interrows, affecting crop productivity and stand longevity. The aim of this project was to investigate the long-term efficacy of a range of Best Management Practices targeted at preventing or remediating inter-row compaction.

