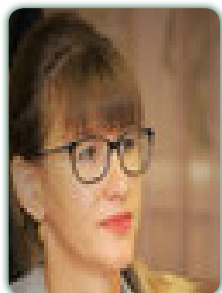


4th International Conference onAPPLIED MICROBIOLOGY, ANTIBIOTICS,
ANTIMICROBIALS AND BENEFICIAL MICROBES

May 20-21, 2019 Tokyo, Japan

**Marina Sidorenko***Federal Scientific Center of the East Asia Terrestrial Biodiversity, Russia***Microbiomes for the disposal of chicken manure**

The intensive development of the poultry industry is associated with the problem of waste management and creates a number of problems. Promising is the biological method using microorganisms. There are many different microorganisms in manure, some of which are useful, as they are actively involved in the decomposition of organic substances. At the same time, manure is a source of transmission of a large number of pathogens of animals and humans (according to WHO). Therefore, it is important to develop biotechnological processes for the disposal of organic waste, ensuring the organization of effective, waste-free and environmental technologies for the bioconversion of manure and litter. A screening of a large number of microorganisms from various systematic groups has been conducted for the ability to assimilate organic substances, to show enzymatic activity. Microorganisms are also tested for the ability to show bactericidal and bacteriostatic activity, antiparasitic activity. As a result, active strains of microorganisms were selected, from which effective consortia were formed. These consortia are recommended for processing poultry manure to further use the compost as a bio-fertilizer. Such compost contains a sufficient amount of basic mineral substances, increases the microbial mass of the soil itself and increases the respiration of the soil. Another direction of use of the substrate obtained by us is its burning, since poultry manure has a high calorific value and the ash obtained by burning is a complex fertilizer with a high nutrient content.

Biography

Marina Sidorenko is a leading Researcher at the Federal Scientific Center of the East Asia Terrestrial Biodiversity Far Eastern Branch of Russian Academy of Sciences (FSCEATB FEB RAS). She has published over 35 articles in well-known journals and four patents of the Russian Federation. She is a Member of the editorial board and Reviewer of several journals. Her areas of interest are applied microbiology, soil microbiome, sanitary microbiology.

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