

Lecturers from Microbiology Division Teaches about Infectious Disease, Biofertilizer and Probiotics



Lecturers from the Division of Microbiology, Department of Biology, Faculty of Mathematics and Natural Sciences, IPB University, visited SMA Plus Al Wahid, Tasikmalaya, West Java, on 13-15 Juni 2022. This activity is a form of community service, one of the manifestations of the Tri Dharma of Higher Education.

On this opportunity, six lecturers (Prof. Dr. Aris Tri Wahyudi, M.Si, Prof. Dr. dr. Sri Budiarti, Prof. Dr. Yulin Lestari, Dr. Iman Rusmana, Dr. Nisa Rachmania, and Jepri Agung Priyanto, M .Si) delivered the theory and practice of infectious disease, biofertilizers and aquaculture probiotics to all students and teachers.

Prof. Dr. dr Sri Budiarti delivered the first material about infectious disease and how to prevent it. She explained that infectious diseases can attack anyone, such as children, adults, and the elderly. Infectious diseases can be caused by transmission through direct contact with sufferers, and food or equipment contaminated with pathogens. A healthy, clean, and hygienic lifestyle is the key to avoiding this disease.

The second material on plant growth promoting rhizobacteria (PGPR) was delivered by Prof. Aris Tri Wahyudi, who is the head of the Division of Microbiology, Department of Biology. The participants were introduced that not all bacteria are harmful, but some are beneficial. One of them is plant growth-promoting bacteria that can increase agricultural productivity.

Prof. Dr. Yulin Lestari further complemented the presentation of the previous material. She talked that bacteria, which are invisible creatures, can be used as biological fertilizers, which is important to promote plant growth, as well as protect plants from

phytopathogens.

In the fourth material, Dr. Iman Rusmana opened the participants' insight that biological science is not only limited to theory, but also opens up opportunities for entrepreneurship. Knowledge of biology can be used as a basic knowledge to increase the added value of a product. The business of probiotics for aquaculture is one of the example of application of biology, especially microbiology that has potential in the entrepreneurial field.

As the final material, Dr. Nisa Rachmania and Jepri A. Priyanto, M.Si, explained how to make bioactivators for composting. Bioactivator is the use of microorganisms to decompose organic materials. Bioactivators can be made from fruit, vegetable waste, and added with sugar as a carbon source. On this opportunity, the students actively carried out the practice of making the bioactivator. After one month of incubation, it is hoped that a liquid bioactivator can be obtained which is ready to be used as fertilizer or as a starter for composting.