

# UGM Runner-Up in Altech Young Scientist World Championship

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Prestigious achievement was made by a student of Faculty of Animal Sciences UGM, Dewi Ratih Ayu Daning, who became the runner-up in the final of Altech Young Scientist competition in Kentucky, USA, from 14-20 May, while the first award was earned by the representative of Canada.

The journey of the girl born in Malang, December 19, 1988, toward the world competition was not easy. Previously, Daning had to compete with 80 finalists at the national level. After she was selected as the representative of Indonesia, she went on to the Asia Pacific level and competed with 1000 other finalists. Following her research on black tea waste, Daning finally managed to reach the top of the competition. In the final, Daning competed with finalists from South Africa, Brazil, Hungary, and Canada.

In this competition, Daning presented her research paper entitled *Black Tea Waste (Bohea) as De-faunation Agent to Gas Methane Reduction on Rumen Fermentation in Supporting Environmentally Eco-Friendly Farming*. The student of Animal Science and Industry Department used black tea to reduce production of methane gas in ruminant livestock.

Her research was started with her concern on the fact that ruminant livestock contributes about 20% of methane in the world. Methane gas is known to contribute to the ozone layer damage and causes global warming. From this reason, Daning tried to find ways to develop eco-friendly farming and make a breakthrough by adding black tea waste in ruminant feed. It proved that methane production declines significantly.

Daning further described, to obtain the intended feed, we simply mix black tea waste with fine bran and forage feed. "By in vitro experiment, the production of methane gas will reduce by 60% compared with cattle feed that is not added with the black tea waste mixture," she explained, Friday (11/6), at UGM Fortakgama Room.

Daning said that black tea waste contains tannin compound (1.5%) which is known to suppress the growth of methane-producing bacteria. That will reduce the production of methane gas. When asked about her experience in the competition, Daning explained, "Although not becoming the world champion, I am proud to be the representative of Indonesia and Asia Pacific region. I have gained

many experiences and I will not forget them all," she said. Prof. Dr. Ir. Lies Mira Yusiati, S.U., her research supervisor, was very proud of the achievement.

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