

UGM Students Win 10th Chemical Product Design Competition

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UGM chemical engineering students have made another outstanding achievement. This time it was the *10th Chemical Product Design Competition, Process Engineering and Energy Days Universitas Indonesia (CPDC PGD UI) 2018*.

UGM team, BUMDest UGM, consisting of Muhammad Hafish Mahdi, Jonathan Kent Sorensen, Natali Gupita Abhirama, Yohanes Susanto, and Albertus Alpherio Tangkilisan have won the championship in the competition, beating 9 finalists. The international chemical product design competition was run at Universitas Indonesia in Depok from 15-17 March 2018.

"The product idea stemmed from the observation on farmer's habit that uses pesticides," said Jonathan Kent Sorensen at UGM on Monday (19/3).

Jonathan explained it was interesting that the farmers had to spray pesticides much more often during the rainy season, because the pesticides were normally washed away by the rainwater. The farmers in general had low awareness on safety by not wearing gloves nor masks while mixing the pesticides.

"These habits have made many of the farmers suffer from nervous diseases after a long period," he said.

Natali Gupita Abhirama added the pesticides developed by the BUMDest was named as *CountrySide* (Controlled-Release Eugenol Citral Rainfast Pesticide). It is natural, having elemental ingredients from clove leaves and lemongrass oils.

According to Natali, these materials are not poisonous and safer than other active pesticide materials. *CountrySide* is also twice thicker so it is not easily washed away by the rainwater.

Another member of the group, Muhammad Hafish Mahdi, said the concept of production and marketing was still local. But the involvement of the Rural Enterprise (BUMDes) in the project had caught the attention of the juries.

"This is the first and only concept in the competition," said Hafish.

Yohanes Susanto hoped the product that is supervised by lecturer Wiratni, S.T., M.T., Ph.D., would help the farmers. As an organic pesticide, *CountrySide* had gone through a preliminary lab test and it can be used and tested in bigger scales.

In the competition, four other UGM teams also went to compete with the Gama Struvite team winning the third place.

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