

Develop Edible Film from Tobacco

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Tobacco, in the hands of Abdul Rahman Siregar, S.Si., M.Biotech., lecturer from Faculty of Biology Universitas Gadjah Mada (UGM), has been processed into nata de tobacco for edible film.

It all started from his intention to present alternative products to tobacco. Abdul Rahman said research on edible film from nata was often done, such as nata de coco or nata de cassava, but not nata de tobacco.

“Nata de tobacco as *Gluconacetobacter xylinus* bacterial fermentation is rich in cellulose so it can be used as edible film raw material,” he said at Faculty of Biology UGM on Monday (21/11).

Abdul Rahman used tobacco leave samples from the village of Krangkeng in Semarang, Central Java. The leaves were extracted into nata de tobacco, added with dimethylacetamide (DMAc) and lithium chloride(LiCl) solutions.

The best nata de tobacco can be produced after an addition of sucrose 4% that generates a 1.9 cm thick nata.

“Edible film from nata de tobacco with 4 percent sucrose addition is recommended as the best treatment as it can produce a good plastic nature,” he said.

Abdul Rahman said the edible film was safe to consume despite the high nicotine level in the tobacco. His research proved that there is no nicotine content after the harvesting on the 14 day.

“Of the nicotine analysis in tobacco, nicotine level is not detected there,” he concluded.

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