

## RINGKASAN

*Kegiatan kompetisi ilmiah menjadi salah satu sarana dalam mengembangkan penelitian dan inovasi bagi para pelajar, khususnya di dunia akademis. Indonesian Young Scientist Association (IYSA) menyelenggarakan kegiatan kompetisi ilmiah International Invention Competition for Young Moslem Scientists (IICYMS) 2023 sebagai wadah yang menampung inovasi dari seluruh dunia. Penyelenggaraan IICYMS 2023 dilaksanakan pada tanggal 23 Mei hingga 26 Mei 2023 yang diselenggarakan secara daring melalui platform Zoom dan luring di UIN Sunan Gunung Djati, Bandung. Inovasi yang diajukan penulis dalam IICYMS 2023 berjudul “Aromatherapy Candle from Used Cooking Oil Recycle as an Innovation to Protect the Environment.” Inovasi ini mendapatkan perolehan berupa Medali Perak pada Kategori Ilmu Lingkungan.*

*Ide inovasi lilin aromaterapi didasarkan pada konsep ekonomi sirkular yang fokus pada meminimalkan dampak pencemaran lingkungan dengan prinsip mengurangi limbah. Kegiatan produksi mendoan sebagai makanan khas Purwokerto menyebabkan pencemaran lingkungan karena menghasilkan limbah minyak jelantah. Sebagai upaya dalam mencapai prinsip ekonomi sirkular tersebut, produk lilin aromaterapi dikembangkan dengan memanfaatkan limbah minyak jelantah hasil dari produksi mendoan di Purwokerto, Banyumas.*

*Inovasi ini berbentuk lilin aromaterapi yang terbuat dari minyak jelantah dengan kandungan asam lemak, trigliserida, dan lemak jenuh yang dimanfaatkan untuk menciptakan lilin yang ramah lingkungan. Lilin aromaterapi ini memberikan solusi inovatif untuk mengurangi limbah sekaligus memanfaatkan sumber daya yang tersedia secara maksimal.*

*Kata kunci: kompetisi ilmiah, minyak jelantah, ekonomi sirkular.*

## SUMMARY

Scientific competition activities are one of the means of developing research and innovation for students, especially in the academic world. The Indonesian Young Scientist Association (IYSA) organizes the 2023 International Invention Competition for Young Moslem Scientists (IICYMS) as a forum that accommodates innovations from around the world. The implementation of IICYMS 2023 was held on 23<sup>rd</sup> of May to 26<sup>th</sup> of May, 2023 which was held online through the Zoom platform and offline at UIN Sunan Gunung Djati, Bandung. The innovation submitted by the author in IICYMS 2023 is entitled “Aromatherapy Candle from Used Cooking Oil Recycle as an Innovation to Protect the Environment.” This innovation received a Silver Medal in the Category of Environmental Science.

The idea of aromatherapy candle innovation is based on the concept of circular economy that focuses on minimizing the impact of environmental pollution with the principle of reducing waste. The production of mendoan as a typical food of Purwokerto causes environmental pollution because it produces waste cooking oil. As an effort to achieve the circular economy principle, aromatherapy candle products were developed by utilizing used cooking oil waste from mendoan production in Purwokerto, Banyumas.

This innovation is a product in the form of aromatherapy candle made from used cooking oil with fatty acids, triglycerides, and saturated fats that are utilized to create environmentally friendly candle. Aromatherapy candle provides an innovative solution to reduce waste while making the most of available resources.

Keywords: scientific competition, used cooking oil, circular economy.