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Salafiyah, Nazilatus. 2014. The Effect Of Seed Duration and Broad Covering Of *Azolla microphylla* to Chemical and Physics Quality Of Laundry's Liquid Waste. Thesis. Department of Biology, Faculty of Science and Technology, Maulana Malik Ibrahim State Islamic University of Malang. Supervisor I : Dr. Evika Sandi Savitri, M.P. Supervisor II : Ach. Nashichuddin, M.A.

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Liquid wastes of laundry have the potential to create pollution. First test shows that liquid waste of laundry does not fit with the quality standard of rule of Government East Java number 72 year 2013. The aim of this research is to know the seed duration and broad covering of *Azolla microphylla* that increase the chemical and physics quality of liquid waste. The research is done in Chemistry Laboratory of Muhammadiyah Malang University. The chemical parameters of liquid waste are BOD, COD, detergent, phosphate, and pH, while the physics parameter is TSS. Furthermore, this research use Complete Random Program, consist of two factors. Factor I composed by three level: seed duration 2 days (H1), seed duration 4 days (H2), and seed duration 6 days (H3). Factor II consist of 4 level, broad covering 0% (L1) = control, broad covering 50% (L2), broad covering 75% (L3), broad covering 100% (L4). The data analysis use SPSS statistic analysis 17.00 ANOVA Two ways.

The result of research shows that the seed duration of *Azolla microphylla* only effective for increasing the detergent standard in order to fulfill the quality standard of liquid waste is started from 2nd days and pH quality is 6 days for seed duration. Broad covering of *Azolla microphylla* only effective for increasing the detergent standard in order to fulfill the quality standard of liquid waste, it is started from 50% and quality of pH is started 75% of broad covering. While, the combination of seed duration and broad covering of *Azolla microphylla* is only effective to increase the quality of liquid waste in fulfilling detergent with 2 days of seed-duration and 50% of broad covering, pH with 6 days of seed duration and 50% of of broad covering, and TSS with 6 days of seed duration and 75% of broad covering.