

INFLUENCE OF VARIOUS SACHET RESIN SUBMERGING TIME ON THE DECREASE OF DUG WELL WATER HARDNESS

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ABSTRACT

Background of study: Hard water is a water that contain lime. Usually hard water is found in a limestone hilly or mountaineous. The use of hard water continuously can raise several problems, among others: economical problem because of the wasful of soaps, technical problems such as crust on pan and an other household appliances, and health disorder such as kidney stones disease.

Aim of study: The study was aimed to know the influence of various submerging *resin saset* time affect the decrease of water hardness of the well water.

Research method: The type of the research was an experiment with one group pretest posttest. Hard water who used in the research from well water in Dusun Wonotawang, Bangunjiwo, Kasihan, Bantul, DIY. Submerged of *resin saset* were repeated five times and obtained values for variation time 5 minute is 12,62% with probabilitas value 0,000, 10 minute is 16,89% with probabilitas value 0,000, 15 minute is 22,34% with probabilitas value 0,000, 20 minute is 23,01% with probabilitas value 0,000, and 25 minute is 24,58% with probabilitas value 0,000. Statistical test result from one way anova test gained a sig. value less than 0,05 meaning that those decrease of water hardness are significant.

Result: To conclude, the various submerging *resin saset* time which yields highest decrease of water hardness is 25 minute.

Keywords: resin, resin saset, water hardness