

THE REDUCING OF BIOLOGICAL OXYGEN DEMAND (BOD) & TOTAL SUSPENDED SOLID (TSS) OF WASTEWATER OF COW HUSBANDRY BY USING CERAMICS MEMBRANE TECHNOLOGY

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ABSTRACT

Development activities should take into account the environment capacity and quality. Cow husbandry business with scale more than 20 cattle's and located in same place tends to pollute environment. But, better waste management applied will give and additional benefit to the environment.

Wastewater treatment system by using ceramic membrane was an alternative in minimizing cow husbandry waste. This research aimed to evaluated how big efficiency of ceramic membrane to treat Biological Oxygen Demand (BOD) and Total Solid Suspension (TSS) of cow husbandry from CV. Lembah Hijau Multifarm (LHM), Solo, Central Java.

The BOD and TSS analysis result of cow husbandry by using ceramic membrane were analyzed, showed that ceramic membrane with 7,5% of saw dust BOD concentrated has got reduce until reached 99,99981% from 210,30912 mg/L to 0,0004 mg/L and TSS concentrated has got reduce until reached 87.32394% from 142 mg/L to 18 mg/L. While ceramic membrane with 10% of saw dust BOD have got reduce until reached 84,375% from 210,30192 mg/L to 32,8608 mg/L and TSS have got reduce until reached 82.58065% from 155 mg/L to 27 mg/L. These concentrations were still below the quality standard allowed.

Key words : *Cow husbandry, Wastewater, Ceramic Membrane, Solo*

KATA PENGANTAR

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