## **ABSTRACT**

The Yield Test of Broom-corn (*Sorgum bicolor (L.) Moench*) Potential Lines M8 Generation, Mu'ammar Khadafi, NIM A41161669, 2020, Pages, Agriculture Production, State Polytechnic of Jember, Dwi Rahmawati, SP., MP. (Supervisor) and Wijaya Murti Indritama, SP., M.Si. (Co-Supervisor)

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Broom-corn also known as Sorghum is a plantation with many benefits starts from its seeds into the stem can be used for many things. Unfortunately, the problem of spreading Sorghum in Indonesia is the lack of adaptable variety in certain area causing less interest among the farmers. This research aimed to understand the yield test of potential lines with certain advantages and ready to publicly release as new superior variety. This research used Randomized Block Designed non factorial with 3 replication for each potential lines. Advanced test was conducted by using Duncan Multiple Range Test (DMRT) with 5% of significance levels. There are 12 potential lines for Yield test: GH1, GH2, GH3, GH4, GH5, GH6, GH7, GH8, GH9, CTY-43, Samurai 1 and Kawali. The parameter of observation are the height, number of segment, panicle's length, panicle's weight, stem diameter, sugar content level, chlorophyll and mass weight.

Keywords: Yield Test, Generation, Sorghum