SUMMARY

Hari Rifa'i 0710473001 – 47. Appearance Of 36 Accessions of Sorgum (*Sorghum bicolor.L*). The main supervisor Dr. Ir. Damanhuri, MS Dan Prof. Ir. Sumeru Ashari, M.Agr.Sc. Ph.D

Sorghum (*Sorghum bicolor L*.) is one type of cereal crops that have great potential to be developed in Indonesia because they have a wide area of adaptation. Sorghum tolerant to drought and waterlogging, can be productive on marginal land, and are relatively resistant to pests / diseases. Grain sorghum can be used as food and feed raw materials and food industries.

Sorghum is native of the region - tropical and subtropical regions in the southeast Pacific and Australia, the region consisting of Australia, New Zealand and Papua. Sorghum is a plant of the family Poaceae and the genus Sorghum. Sorghum alone has 32 species. Among the species - the species, which is the most widely cultivated species of Sorghum bicolor (japonicum). This plant is closely related to other cereal crops such as rice, maize and wheat and other crops such as bamboo and cane. In taxonomy, plants - the plants belonging to one big family Poaceae which is also often referred to as Gramineae or grass - grass.

Sorghum is not only one of the five major plants producing seeds - grains in the world, but also offers a very broad diversification. Sorghum is also one of the plants used for land rehabilitation is very effective and efficient. Therefore, cultivation and utilization means still need to be studied in depth in order to provide the greatest benefits sebesa This study aims to determine the yield potential of 36 accessions of sorghum, this research was conducted in the village of Dadaprejo, District Junrejo, Batu, the altitude of 600 m above sea level, the temperature of 24 oC. The experiment was conducted in April 2014 to July 2014 instrument used in this study is a farming tool, hoe, sickle, rope, ruler, paper labels, nameplate, meter, scales, digital cameras and stationery. The materials used are 36 accessions of sorghum, which is used Fertilizer Urea, NPK fertilizer. And other materials that support the research.

This study compiled by randomized block design (RBD) with two replications. Each plot consisted of two rows. A spacing of 60 cm x 20 cm. Observed in this study consisted of qualitative and quantitative observations of some important characters sorghum plants, including plant height, days to flowering, panicle length, panicle width, perbiji weight, weight of 1000 seeds, number of seeds per plant, weight of crop seeds, leaves the middle of the bone color, density and shape of the flower, husk color, seed color, seed shape, exit of panicle / flower.

The results of the quantitative study showed that the inter-accession Based on the analysis of variance for eight characters were observed in the parameters of plant height, days to flowering, panicle length, panicle width, perbiji weight, weight of 1000 seeds, number of seeds planting, planting seed weight showed significantly different results in the standard 5%. Calculated F value observed eight characters in accessions showed all the character observations were significantly different in the level of 5%.

While the results of qualitative research on the average color of the leaves in the middle of the bone results show the uniformity of the color of the leaves on the middle bone of all accessions, the bone around the middle of the leaf color is white.

Density and shape of the flowers on the results of the study showed there any differences in the density and shape of a flower on all accessions, the accessions 4, 11, 24, density and shape of the flower-shaped upright branches open primary, 5 accession density and shape of the flower-shaped drooping primary branches open, accession 7 , 8, 9, 10, 13, 14, 17, 18, 19, 20, 25,

26, 27, 28, 30, 31, 33 flower-shaped density and shape of the primary branches upright rather open, accession 34 density and shape of the flower-shaped primary branches droop slightly open, 2,3,6 accession density and shape of the flower-shaped rather compact or dense, oval, accessions 1, 12, 16, 21, 22, 29, 32 density and compact shape of the flower-shaped, oval, and accession 35 , 37 the density and shape of the flower is shaped like a short broom.

Observations of color husks on the results revealed that there were any differences in the color of the husk on all accessions, the accessions 1, 5, 6, 7, 9, 14, 16, 18, 19, 20, 23, 24, 25, 28, 29, 33, 35 Yellow or brown color, accessions 2, 3, 4, 8, 10, 11, 12, 13, 15, 17, 21, 22, 26, 27, 30, 31, 32 red, and 34 accessions, 37 colors black chaff.

seed color are the differences in seed color in all accessions, the accessions 1, 2, 3, 4, 7, 8, 9, 10, 13, 15, 16, 18, 20, 22, 25, 27, 29, 31 mean The average white, yellow colored 6 accessions, 32 accessions colored red, accessions 12, 17, 19, 23, 33, 34, 35 brown, accession 5, 11, 14, 21, 24, 26, 28, 30 amber , and the accession of 37 black.

Observations average grain shape on the research results show the uniformity of grain shapes observed in all accessions, the whole shape of the seeds in each accession form a single seed.

The exit panicles or flowers on the uniformity of the results showed the release of panicle or flower at all accessions were observed, namely the release of panicles or flowers on each accession Exit with good (> 10 cm at the base panicle and flag leaf).