

*ANALYSIS OF PHENOTOPIC CHARACTERISTICS OF SOME GROUPS OF
BENGGUANG (*Pachyrhizus erosus* L.)*

By: Nur Lailli Istitajannah

ABSTRACT

This study aims to analyze the superiority of the phenotypic characters of several yam bean lines. The research was conducted in Kutasari Village, Baturraden District, Banyumas Regency, Central Java Province in February-June 2023. The study used a randomized block design with 4 replications. The research treatments consisted of yam Banyumas, Binjai, Kediri, Madura, Padang, and X strains. The results of quantitative data were processed using variance if there was a significant difference followed by the BNJ 5% test, qualitative data were processed descriptively and the kinship test using a dendrogram. The results showed the superiority of the phenotypic characters of several yam bean lines, namely the Banyumas lines: length of terminal 1 petiole, the ratio of petiole lengths of terminal 1 and 2, stalk color, flower crown color, stigma color, stamen color, seed color. Binjai lines: number of leaves, flowering age, length of a flower pistil, length of tuber per plant, length of the seed, width of seed, type of plant, shape, and color of the corolla, the color of petals, shape, and color of seeds. Kediri lines: number of terminal leaf angles, stalk color, petal color, flower stylus color, tuber skin color. Madura lines: petal color and flower stylus. Padang lines: terminal leaf angle, terminal leaf width, ratio of leaf length to terminal leaf width, sugar content and seed length, stem color, stigma color, stamen color, and seed color. X lines: length of terminal leaf, length of petiole of terminal 2, length of flower crown, width of flower crown, stem diameter, tuber weight per plant, weight per tuber, tuber width per plant, productivity per hectare of 1,214.23 kg/ha, and the color of the flower crown, and suitable for planting in the lowlands.

Keywords: Yam bean, phenotypic character, and productivity