

## عنوان مقاله:

An Investigation of Phenotypic and Genotypic Variations in ۱۰۰ Upland Rice Genotypes at Pawe, Northwestern Ethiopia

## محل انتشار:

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## خلاصه مقاله:

Lack of improved rice varieties has been identified as one of the challenges of rice research and development in Ethiopia, hindering the national production and productivity of the crop. Hence, the national rice research program of the country has tried to introduce and evaluate the diverse upland rice genotypes under the rainfed cropping season. In this experiment, ۱۰۰ upland rice genotypes were introduced and evaluated with three locally well-adapted upland rice varieties as the standard checks using the augmented randomized complete block design/RCBD experimental design with a plot size of ۱.۵m<sup>۲</sup> and ۳ rows per plot. The seeds were drilled in rows with a seed rate of ۶۰ kilograms per hectare (kg/ha). The Nanoparticles/NPS (۱۲۴ kg/ha) and urea (۱۰۰ kg/ha) fertilizers were applied. The days to ۵۰% heading, days to ۸۵% maturity, plant height, panicle length, number of filled grains per panicle, number of unfilled grains per panicle, grain yield, and ۱۰۰۰ seed weight in gram were collected and subjected to a statistical analysis using SAS statistical software with ۹.۴ version from which a significant variation for all the traits was observed showing the presence of genetic variability among the rice genotypes. The genotypes were highly and significantly varied on their grain yield (coefficient of variation/CV= ۷.۸۶\*\*\*), ۱۰۰۰ seed weight (CV= ۹.۹۷\*\*), and days to ۸۵% maturity (CV= ۲.۳۸\*\*). A lower genotypic coefficient of variance and a higher phenotypic coefficient of variance among the .genotypes were obtained, indicating that the variation was more due to environmental effects

## کلمات کلیدی:

Genotypic diversity, Phenotypic diversity, Heritability, Variance components

## لینک ثابت مقاله در پایگاه سیویلیکا:

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