

VARIETY IMPROVEMENT AND PEST MANAGEMENT SECTION

Preliminary Yield Test, PHIL 2018 Series

- > Date of Completion of Study: June 2023
- > Date of Completion of Terminal Report: July 2023

The Preliminary Yield Test of Phil 2018 series was conducted at SRA, La Granja Agricultural Research and Extension Center, La Carlota City, to determine the yield and agronomic performance of sugarcane clones under representative environmental conditions and to select and recommend promising clones/varieties for ecological testing. There were 30 entries selected from Phil 2018 Series Multiplication II, with Phil 8013 and VMC 86550 as control varieties. The Preliminary Yield Test is Stage VI of the ongoing Sugarcane Variety Improvement program at SRA.

The yield performance of Phil 2018 series clones showed that ten clones exhibited significantly higher tonnage compared to both control varieties. Phil 2018-09-0005 and Phil 2018-194-1663 were the only clones comparable to VMC 86-550 but significantly higher than Phil 8013, with mean tonnages of 87.59 and 86.85, respectively. In LKg/TC, Phil 2018-88-0867 exhibited significantly higher sucrose content compared to Phil 8013 but was comparable to VMC 86-550, with a mean of 2.68 LKg/TC. Phil 2018-123-1223 and Phil 2018-183-1627 were the only clones that showed significantly higher values compared to both controls, with means of 228.37 and 225.15, respectively, in LKg/Ha.

In terms of germination percentage, Phil 2018-09-0003 achieved the highest mean percentage with a rate of 92.45%.

Phil 2018-09-0003 had the highest number of millable stalks at 8.89, followed by Phil 2018-194-1663 with a mean of 8.42.

In weight per stalk, Phil 2018-40-0243 and Phil 2018-59-0391 showed significantly higher values compared to both controls, with weights of 1.74 kg and 1.65 kg, respectively.

Regarding stalk length, Phil 2018-59-0393 showed significantly greater length compared to both controls, measuring 319.73 cm.

Phil 2018-97-0913 showed significantly larger stalks compared to both controls, with a mean diameter of 345 cm, followed by Phil 2018-40-0243, which showed significance compared to Phil 8013 but comparability to VMC 86-550, with a mean diameter of 3.29 cm.

Ten promising clones were selected and recommended for further evaluation in the Ecological Test, namely: Phil 2018-72-0745, Phil 2018-09-0005, Phil 2018-90-0871,

Phil 2018-97-0913, Phil 2018-123-1223, Phil 2018-123-1201, Phil 2018-130-1329, Phil 2018-183-1627, Phil 2018-88-0867, and Phil 2018-65-0593.

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