

การคัดเลือกพันธุ์ข้าวทนทานต่อสภาพดินเปรี้ยวขำวนาสวน, ปี 2529

The 1985 Acid Lowland Soil Screening (IRTP/INSFFER) set

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Abstract

Acidity is a major obstacles to increasing rice yields on millions of hactares of land in coastal area in the tropies and subtropies. Iron toxicity is also the dominant soil strees experienced by rice in most acid paddy soil. To screen and evaluate rice varieties under two varying regimes of fertilizer input, International Rice Testing Program (IRTP) and the International Network on Soil Fertility and Fertilizer Evaluation for Rice (INSFFER) and Phattalung Rice Rice Research Center, Rice Research Institute, Dept of Agriculture were jointly coordinated.

Sixty two entries in the set were sent from Internation Rice Research Institute (IRRI). IR 26 serves as the susceptilble check and Look Deang a local variety serves as the tolerance check. Field lay out was Split plot design with 2 replications. Without any phosphorus ($O P_2 O_5$ /ha as the main plots. Nitrogen and Potassium fertilizer at rate of 60 kg/ha N and 40 kg/ha $K_2 O$ applied over the entire experiment. pH of the soil was 3.0-3.5.

Score for tolerance to acidic soils.

<u>Score</u>	<u>Description</u>
1	Nearly normal growth and tillering
2	Nearly normal growth and tillering, oldest leaf shows brown spots
3	Nearly normal growth and tillering, some old leaves are purple or orange yellow
5	Growth and tillering retarded, many discolored leaves
7	Growth and tillering have stopped, most leaves are discolored or dead
9	Almost all plants are dying or dead

All of the rice varieties "OP" (without any phosphorus application) were dead at seeding stage, score were given-9. Meani that phosphorus in the soil was not available at pH between 3-3.5 without any phosphorus added the rice plant could not grown. At "60 (60 kg P_2O_5 /ha added as triple superphosphate) only 5 No.-of rice given score = 3, most of them were given score 5 and 7.