VARIETAL EVALUATION OF YELLOW CORN HYBRIDS, OPEN-POLLINATED, AND GLUTINOUS CORN VARIETIES IN ILOCOS REGION, PHILIPPINES

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This study was conducted at the Mariano Marcos State University Experimental Farm from 2015 wet season to 2016 dry season under the San Manuel and San Fernando Soil Series. It aimed to (1) evaluate the performances of corn hybrids, open pollinated varieties (OPVs), and glutinous corn for yield and other agronomic characteristics and (2) recommend to the National Seed Industry Council (NSIC) the corn varieties for national and regional commercial releases. Results of the study revealed that most of the varieties performed well under the Ilocos condition. Significant variations were also observed on the agronomic and yield characteristics of the different entries evaluated. During the wet season trial, two yellow corn hybrids (i.e., KK 1616 and BIO 9780) outyielded the check varieties. On the other hand, during the dry season trial, six varieties (i.e., TCT 1709, PP 8107, P 3774R, PP 8301, PP 8101, and PP 8302) performed better than the check varieties. In terms of the white and yellow OPVs, MMSU Glut2 produced higher yield than the check variety did during the wet and dry season trials. Other varieties that performed better than the check varieties were IES Cn 7, USM NCH 35, USMARC TC 109, IES 10-04, USMARC 1413, USMARC 308, TCT 159, and CVRC 15-10. All of the entries evaluated were resistant to corn borer and foliar diseases. Due to the good performance of these varieties, the Corn and Sorghum Technical Working Group recommended to the NSIC the varieties PP 8001 and PP 8102 for seed increase in Luzon, and PP 8107 for Luzon and Visayas. Other entries like TCT 1709, PP 8101, P 4097 R and P 3774 R were also recommended for commercial release in Luzon, whereas PP 8301 was recommended for Luzon and Visayas. MMSU Glut2 was also recommended for commercial release in Visayas and USMARC 1413 (a yellow OPV) was recommended for Visayas and Mindanao.

Keywords: glutinous corn, hybrid corn, open-pollinated corn varieties