

PA-54

An Analysis of the Rice Situation in Nicaragua for Improving National Production.

Chang-Min Lee¹, Oporta Juan^{1,3}, Ho-Ki Park², Hyun-Su Park¹, Jeonghwan Seo¹, Man-Kee Baek¹, Jae-Ryoung Park¹, O-Young Jeong^{1*}

¹Department of Crop Breeding, National Institute of Crop Science (NICS), Rural Development Administration (RDA), Wanju 55365, Republic of Korea

²KOPIA Nicaragua center, Nicaragua

³Nicaraguan Institute of Agricultural Technology, INTA Nicaragua

[Abstract]

Nicaragua is located in Central America, climatic conditions are considered tropical dry forest. Statistics reflex that in Nicaragua exits 24,000 rice farmers. National rice production only covers 73% of the national consumption. It exists two sowing system: irrigation and rainfed. Varieties used in both systems are mid-late maturity (120-135 days), there are 14 released varieties for irrigation, eight for rainfed, and eight landraces used in rainfed. The current breeding system (introduction of lines from Colombia) has increased the national production, however, has some limitation due to the lack of enough variability, reducing the proability of finding good genotypes and therefore the possibility of satisfying 100% of the demand. The purpose of this study was to analyze the problems that must be resolved in the short and long term to improve rice productivity in Nicaragua. In this paper we explain some proposal for an improvement plan. The selection of varieties with high adaptability to various cultivation environmental conditions it is necessary, also to thoroughly manage seed purity to supply certified seeds. In rice cultivation technology, it needs to improve seedling standing and weeding effect by improving soil leveling and water-saving cultivation technology. Also, proper fertilization and planting density must be established in irrigated and rain-fed areas. Furthermore, capacity must be strengthened by collecting and training with the most recent agricultural technology information, as well as by revitalizing the union rather than the individual farmer. It is necessary to develop varieties highly adaptable to the Nicaraguan cultivation environment, as well as to expand irrigation facilities and cultivation technology suitable for weather conditions in rain-fed areas. Last, it is necessary to maintain the consistency of agricultural policy for continuous and stable rice production in response to climate change events such as drought or intermittent heavy rain.

[Acknowledgement]

The research was funded by the Rural Development Administration(RDA) of South Korea, grant number PJ014961012022

*Corresponding author: E-mail, joyoung@korea.kr Tel. +82-63-238-5212