Rice Research: Open Access

Short Communication Open Access

Challenges and Opportunities in Regional Rice Sector Development and Salinity Effects on Seedling

Julia M*

Research Institute of Green Science and Technology, Shizuoka University, Japan

Rice is that the staple of Asia and it's central to the food security of regarding half the globe population. Asia accounts for over ninety % of world rice production and consumption. Rice production is a crucial supply of keep for around one hundred forty million rice-farming households and for several rural poor WHO work on rice farms as employed labour. it's a strategic artifact because the overall economic process associate degrees political stability of the region rely upon an adequate, cheap and stable offer of this staple crop. Despite the substantial increase in rice production within the wake of the revolution, necessary challenges stay in making certain associate degree adequate and stable offer of this necessary artifact affordably to poor shoppers. Major challenges are the requirement to provide additional rice to fulfil the rising demand driven by increment despite slower growth or perhaps a decline in per capita consumption in some countries; speed within the growth of rice yield; environmental degradation related to intensive rice production; a decline in rice variety and loss of rice heritage; international climate change; increasing competition for land, labour and water from industrial and concrete sectors; changes in dietary composition with financial gain growth and urbanization; and changes within the demographic composition of labour in rural areas. Similarly, achieving stability in rice value is a crucial challenge within the context of transmission of shocks because of the inflated link of rice with different sectors and instability in trade policies of the foremost commercialism countries [1].

Effects of NaCl on the expansion, particle content, plant organ structure and Casparian band development were examined in four rice (*Oryza sativa L.*) cultivars with totally different salt resistance (salt-sensitive indica-type IR twenty four and japonica-type Nipponbare and salt-resistant indica-type Nona Bokra and Pokkali). Experiments were conducted to search out the variations in salinity resistance throughout early seed plant and developed seed plant stages among the cultivars. For salinity treatment, common salt (NaCl) was another to nutrient answer at concentrations of zero, twenty five and fifty millimeter for seven days from germination to the seventh day (early seed plant stage) or from the seventh day to ordinal day (developed seed plant stage). Growth inhibition by salinity was additional distinguished within the early seed plant stage than within the developed seed plant stage. Supported the expansion, the order of the sensitivity was IR24 > Nipponbare >Nona Bokra> Pokkali [2].

Flood irrigation practices that are usually utilized in Calif. throughout the first stages of rice (*Oryza sativa L.*) institution could contribute to salinity injury and eventually decrease yield. Information of salinity effects on rice seed plant growth and yield parts would improve management practices in fields and increase our understanding of salt tolerance mechanisms in rice. Salinity sensitivity of rice was studied to see salinity effects on seedlings and yield parts. Plants of rice variety M-202 were mature in a very greenhouse in sand and irrigated with nutrient solutions of management and coverings amended with NaCl and $CaCl_2$ (2:1 molar concentration) at one 9,3.4,4.5,6.1,7.9, and 11.5 dS m^{-1} electrical physical phenomenon. Shoot dry weights of seedlings were measured at 5 harvests within the 1st month when seeding. Seed plant growth was considerably reduced by salinity at rock bottom salinity treatment, 1.9 dS m^{-1}. At 1.9 and 3.4 dS m^{-1}, important reduction of seed plant growth occurred at longer accumulative thermal time than at higher salt levels [3].

References

1. Dawe D, Pandey S, Nelson A (2010) Emerging trends and spatial patterns of rice production. Rice in the global economy: strategic research and policy issues for food security.
2. Ferdose J, Kawasaki M, Taniguchi M, Miyake H (2009) Differential sensitivity of rice cultivars to salinity and its relation to ion accumulation and root tip structure. Plant Prod Sci 12: 453-461.
3. Zeng L, Shannon MC (1998) Salinity effects on seedling growth and yield components of rice. Crop Sci 40:996-1003.

***Corresponding author:** Julia M, Research Institute of Green Science and Technology, Shizuoka University, Japan; Email: asima56@gmail.com

Received March 09, 2021; **Accepted** March 23, 2021; **Published** March 30, 2021

Citation: Julia M (2021) Challenges and Opportunities in Regional Rice Sector Development and Salinity Effects on Seedling. J Rice Res 9: 245.