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A REVIEW ON PRODUCTION OF RICE IN WATER DEFICIENT REGIONS

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ABSTRACT

Rice output in Asia must grow in order to feed an ever-increasing population. Despite the fact that the water deficit for rice in Asia is still being evaluated, data indicates that a decrease in water quality and availability is placing the irrigated rice system in jeopardy. Drought is one of the major reasons for the high yields of rain-fed rice. In order to ensure food security and satisfy the world's hunger need, different methods of growing rice with little water are required. The article examines a systematic strategy to increasing rice yields and decreasing water requirements for rice cultivation that includes genetics, breeding, and integrally managed capital. Various water-saving irrigation techniques, such as saturated-soil cultivation and alternate wetting-drying, may reduce wasteful water discharges while constantly increasing water productivity. Additional contemporary techniques for increasing water efficiency without sacrificing returns are being investigated. Incorporate the C4 photosynthetic pathway in rice to improve yield per unit of water, utilize molecular biotechnologies to promote drought tolerance, and cultivate "aerobic rice" in non-flooded soil to produce a healthy and safe yield.

KEYWORDS:*Drought, Irrigation, Irrigated Rice, Rain-Fed, Water Management.*

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