

Growth and yield response of rice variety MR220 to different water regimes under direct seeded conditions.

ABSTRACT

The effect of different water regime treatments on MR220 rice growth and yield response was evaluated. Three water regime treatments were used namely, continuous flooded condition, saturated and field capacity. Number of tillers increased under flooded condition compared with saturated condition for both seasons. Shoot biomass was higher under flooded condition than under field capacity and saturated condition in both the seasons. Water use efficiency was higher under field capacity condition as compared to flooded and saturated conditions for both the seasons. However, about 50% water can be saved under saturated condition and it was higher than flooded condition for main and off seasons efficiently. Number of panicle under flooded was higher than saturated and field capacity treatments in both the seasons. Grain yield was higher under flooded condition as compared to saturated and field capacity conditions in both the seasons. Flooded condition produced higher 1000 grain weight compared with any other treatments in both the seasons.

Keyword: Direct seeded; Moisture stress; Productivity; Water use efficiency.