Abstract:

The success of Acacia senegal nursery stock under field conditions in western Sudan is adversely affected by lack of standard nursery techniques. The objective of this study was to find out the best cultural package for western Sudan by studying the effect of sowing date, light intensity and irrigation frequency on seedlings in the nursery. The use of 50% light intensity in the form of overhead shade significantly increased initial height, growth and survival in the nursery, but slightly depressed growth under field conditions. On the other hand, high light intensity (100%) with once every two days irrigation in the nursery significantly increased root development and high seedling mortality in the nursery, and gave the highest survival rate in the field. Late sowing produced reasonable height growth and survival, in addition to reducing the nursery period by 6-8 weeks. Therefore, the study suggests late sowing with 50% overhead shade and once a day irrigation for the production of Acacia senegal nursery stock.