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التوثيق الالكتروني والميكروفيلم

﴿ قسم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

RESPONSE OF SOME WOODY TREES TRANSPLANTS TO FERTILIZATION AND IRRIGATION TREATMENTS IN NUBARIA

BY

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ABSTRACT

Introducing valuable kinds of trees and replacing the less value traditional kinds is a progressive demand in Nubaria Region (as a new reclamation land in Egypt) to secure a source of wood production as well as to modify the ecosystem in this region. This work was established to assess the influence of NPK fertilization rates, drip irrigation levels and their interaction on first-year growth of Chinaberry (*Melia azedarach* L.), Black poplar (*Populus nigra* L.) and baldcypress (*Taxodium disticum* Rich.) transplants for two seasons of 1998/1999 and 1999/2000. Four NPK fertilization rates were added: Control = 0+0+0, F1 = 30+60+30, F2 = 60+120+60 and F3 = 120+240+120 Kg feddan^{-1} year^{-1}. Meantime, drip irrigation was applied at three levels: low = 8, medium = 16 and high = 24 L tree^{-1} day^{-1} in a sandy soil. Measured growth parameters were, vegetative growth (height growth increment, stem diameter increment, number of branches, leaf area, max. extension of horizontal roots and max. depth of vertical roots), chemical composition of the leaves (N, P, K, Mg, total chlorophyll and total carbohydrates) and wood properties (specific gravity and fiber length). In summary, significant differences between treatments and their interaction were observed in growth as resulted in development of considerable vegetative growth and foliar chemical composition whereas the wood properties were not affected.

In general from the standpoint, the highest significant values of the aforementioned parameters resulted from the treatment of F3 of fertilization (120+240+120 Kg feddan^{-1} year^{-1}) under medium level of irrigation (16 L tree^{-1} day^{-1}) for *Melia azedarach* L. whereas this was achieved by the treatment F3 of fertilization under high level of irrigation (24 L tree^{-1} day^{-1}) for *Populus nigra* L. and *Taxodium disticum* Rich. in both seasons.