

SWITCHGRASS IN THE MEDITERRANEAN REGION

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ABSTRACT: The aim of this work was to test the adaptability and biomass productivity of several switchgrass varieties in the Mediterranean region (Greece and Italy) as well as to test the productivity of five switchgrass varieties under three nitrogen fertilizations rates. In 1998, four switchgrass trials were established, two in Greece (Aliartos) and two in Italy (Trisaia). In each country a nursery and productivity trial were established. The experimental layout in the nursery trial was a randomized complete block design in three replications, while in the productivity trial was a 5x3 factorial complete block design in three replications. During both growing periods (1998, 1999), in all trials, a series of measurements were carried out including canopy height, number of leaves per plant, number of tillers per square meter and number of tillers per plant. At the end of each growing season a final harvest was carried out in order to estimate fresh and dry matter yields. In Greece, at the end of the second growing period, fresh biomass yields ranged from 19.3 t/ha (CIR) to 30.67 t/ha (Alamo), while in Italy varied from 2.12 t/ha (9005439) to 20.95 t/ha (Alamo). The corresponding values for dry matter yields in Greece ranged from 14.87 t/ha (CIR) to 23.64 t/ha (Alamo) and from 1.71 t/ha (9005439) to 15.46 t/ha (Alamo) in Italy. The collected data did not show any serious effect of the different nitrogen fertilization rates on fresh and dry matter yields.