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Effects of various hormonal treated plant substrates and their influence on the *Pleurotus ostreatus* development in the semi-arid regions

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Effects of various hormonal treated substrates were investigated on mycelia, pinning and biomass of *Pleurotus ostreatus*. A 3 x 4 experimental layout was used i.e., three substrates: *Urochloa panicoides*, *Zea mays* and *Datura stramonium* and four hormones: Cytokinins; Auxins; Gibberellins and Control. Treatments were replicated three times (CRBD). The results indicated a significant difference ($p \leq 0.05$) on mycelia, pinning, fruit caps and biomass. Mycelia on substrates showed: *U. panicoides* (100%), *Z. mays* (84.78%) and *D. stramonium* (36.31%). Pinning rate was: *U. panicoides* (65.48%), *Z. mays* (32.99%) and *D. stramonium* (12.23%). Hormones were also noted to have a significant effect ($p \leq 0.05$) on fruit cap size and style length. Cap size observed was: Auxins: 19.3 cm, Gibberellins: 8.25 cm and Cytokinins: 7.1 cm and style length: Auxins: 8.9 cm, Gibberellins: 13 cm and Cytokinins: 10.3 cm. Biomass on different substrates showed: *U. panicoides* (7609.56g), *Z. mays* (7296.42g) and *D. stramonium* (4368.15g). From the results it can be deduced that mushroom biomass is influenced by substrate.

Biography

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