

Thesis Title Improvement of Florida Type Oyster Mushroom [*Pleurotus ostreatus* (Jacq. ex. Fr) Kummer] by Means of Hybridization

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Abstract

From the hybridization between Florida type oyster mushroom and hybrid strain of KDCM4 by means of mono - mono crossing, 12 good characters strains were selected. When yield comparison were made both in rainy and winter season, average growth and yield were higher in winter. Highest yield was obtained from 3 (Py2 x A7) strain with 198.2 g / bag. Monokaryotic mycelium of such strain were used to make di - mon crossing with 5 strains of its parents KD1, KD3, KDCM2, KDCM3, KDCM4 and 5 strains of a progeny but with less yield, 1(Py6 x A9), 4(Py8 x A7), 5 (Py6 x A1), 6 (Py3 x A1), 7 (Py3 x A7) include its own dikaryon 3(Py2 x A7). There were 220 combinations but only 187 combinations had clamp connections. Only 9 lines of good characters were selected. The characteristics required were light cream to dark cream colour, round fruit body with cap diameter about 3 - 5.5 cm and very fragile. When yield of hybrids and Florida type oyster mushroom were compared, Florida type oyster mushroom yielded of only 134.2 g / bag while 4 strains yielded even higher with 168.2, 144.2, 148.2, 144.1 g / bag respectively.