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Technique of plant regeneration from immature inflorescence of *Pennisetum Purpureum* in Vitro

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Key words : *Pennisetum Purpureum* ,immature inflorescences ,in vitro ,callus ,plant generation

Abstract Immature inflorescences of *Pennisetum Purpureum* and MS improved and were used for explant and basic culture medium . Effects of development period of immature inflorescences and hormone compositions of different kinds and ration on callus induction and plant regeneration were studied . Results indicated that 2 ~5 cm immature inflorescences was optimum . The frequency of callus of compact , small pellet induction reached separately 79 .0% and 72 .6% in the callus induction medium supplemented with 4 .0mg/L 2 ,4-D+ 0 .05 mg/L KT and 4 .0mg/L 2 ,4-D + 0 .1 mg/L KT (Figure 1) . During subculture , Callus of small pellet were maintained 40 .9% and 74 .0% in the callus subculture medium added 3 .0mg/L 2 ,4-D + 0 .2 mg/L 6-BA . The rate of green plant regeneration of small pellet callus from subcultures reached respectively 36 .4% and 38 .5% in the differentiation medium supplemented with 2 .0mg/L CPPU +0 .01mg/L NAA or 0 .5mg/L KT + 0 .5mg/L IAA . Green plant of regeneration with three leaves was transferred to root vigor medium added 0 .5 mg/L NAA in 1/2 MS basic culture medium (Figure 2) . The survivor rate of green plant cultured in soil reached above 95% (Figure 3) . It was a simple effective method to overcome the obstruction of plant generation by selecting the callus of dry , compact , small pellet in early generation .

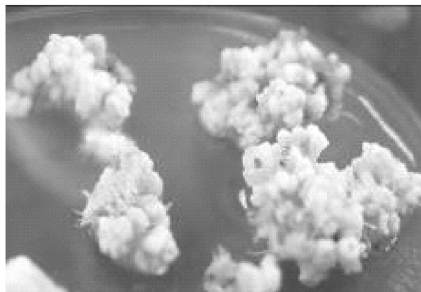


Figure 1 Calli of dry , compact , small pellet .



Figure 3 Regenerated plant transplanted in soil .

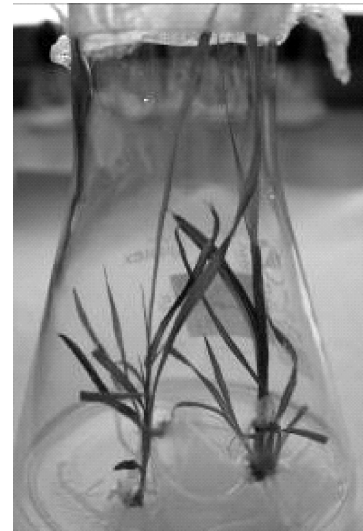


Figure 2 The intact plantlets from immature inflorescences of *Pennisetum Purpureum* .