

Analisis Jumlah Kromosom *Taraxacum Officinale* Weber ex F. h. wigg Hasil Regenerasi in Vitro = Analysis Chromosomes Number of *Taraxacum Officinale* Weber ex F. H. wigg from in Vitro Regeneration

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Abstrak

ABSTRAK

Taraxacum officinale Weber ex F. H. Wigg, herba berkhasiat obat dan bersifat apomiksis. Perbanyakan tunas kultur jaringan telah dilakukan untuk penyediaan bibit berkualitas. Namun, perubahan jumlah kromosom dapat terjadi pada tanaman hasil regenerasi. Penelitian bertujuan untuk mengetahui jumlah kromosom *T. officinale* hasil regenerasi in vitro. Analisis jumlah kromosom dari ujung akar dilakukan terhadap 24 tanaman hasil regenerasi akar, 27 tanaman hasil regenerasi helai daun, 21 tanaman hasil regenerasi tangkai daun dan 102 akar dari biji (kontrol) menggunakan metode orcein Squash. Hasil menunjukkan bahwa jumlah kromosom dari biji maupun tanaman hasil regenerasi in vitro bervariasi. Kisaran jumlah kromosom tanaman regenerasi adalah $2n = 8-39$ dengan sel diploid ($2n = 2x = 16$) adalah sel terbanyak, sedangkan kontrol adalah $2n = 10-38$ dengan sel triploid ($2n = 3x = 24$) adalah sel terbanyak. Variasi jumlah kromosom tersebut disebabkan adanya sifat apomiksis yang diturunkan oleh tanaman induk.

ABSTRACT

Taraxacum officinale Weber ex F. H. Wigg, herbaceous medicinal plant and apomictic. Multiplication of shoots using tissue culture was used to obtain high quality seedlings of *T. officinale*. However, changes in *T. officinale* chromosome number occur in regenerated plants. The research aim was to determine the chromosomes number of regenerated plants from culture in vitro. Analysis of chromosome number from root tips samples on 24 plants regenerated from root, 27 plants regenerated from leaf blade, 21 plants regenerated from petiole and 102 root of grown seeds using orcein squash method were done. The results showed that seed (control) and regenerated plants have variation in chromosome number. The range of Chromosome number from regenerated plants were $2n = 8-39$, and cells with diploid number ($2n = 2x = 16$) as most observed. The range in controls were $2n = 10-38$, and cells with triploid number ($2n = 3x = 24$) as most observed. Variation numbers of chromosome caused by apomixis in parent plant passed to regenerated plants.