

Ocena zmienności somaklonalnej liliowców rozmnożonych *in vitro* na podstawie obserwacji fenotypowych oraz przy użyciu RAPD i ISSR

Małgorzata Podwyszyńska¹, Eleonora Gabryszewska¹, Małgorzata Korbin¹, Artur Jasiński²

¹Instytut Sadownictwa i Kwiaciarnictwa, Skierniewice

²Gospodarstwo Ogrodnicze, Piastów

Somaclonal variation in micropropagated *Hemerocallis* sp. plants determined by phenotype and molecular markers, RAPD and ISSR

Summary

The genetic fidelity of the micropropagated daylily plants was evaluated by a phenotypic observation and with the molecular markers, randomly amplified polymorphic DNA (RAPD) and inter-simple sequence repeat (ISSR) techniques. The plants of nine daylily cultivars propagated *in vitro* for the period of one to five years and grown outdoors in the years 2002 to 2007 were used in the study. The somaclonal variants occurred within the micropropagated plants of the five genotypes. The somaclones differed from the true-to-type plants in terms of colour and shape of the flowers. Depending on the genotype, the frequency of somaclonal variation (SV) ranged from 1.4% to 100%. The RAPD and ISSR analyses of the selected somaclones confirmed the polymorphism between true-to-type plants and somaclones on the level of DNA.

Key words:

Daylily plants, molecular markers, ISSR technique, micropropagation

Adres do korespondencji:

Małgorzata Podwyszyńska, Instytut Sadownictwa i Kwiaciarnictwa, ul. Pomologiczna 18, 96-100 Skierniewice