**[Sample of a paper]**

**Evaluation of genetic diversity in Japanese wild *Miscanthus* *sinensis* populations using simple sequence repeat markers**

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**Keywords:** genetic diversity, population structure, simple sequence repeat markers

**Abstract:** The objective of this study was to evaluate the genetic variability within and among 31 wild *Miscanthus sinensis* accessions collected in Japan from south to north …

**Introduction**

The genus *Miscanthus* is a typical C4 perennial grass with high potential in energy production due to high biomass yields and lignocellulose ...

**Materials and methods**

A total of 31 wild *M. sinensis* populations used in this study represent eight districts of Japan ...

**Results and discussion**

**SSR polymorphism**

The eight SSR markers revealed 72 alleles among the 31 *M. sinensis* accessions ...

**Analysis of molecular variance**

In the hierarchical locus-by-locus AMOVA, 15.4% of the total genetic variance was explained…

**Table 1.** Total number of alleles and the genetic diversity index for four SSR loci in ...

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Locus | NG | A | Ae | Ho | He | PIC | I |
| M&M29 | 8 | 4 | 1.6 | 0.326 | 0.393 | 0.356 | 0.748 |
| M&M39 | 6 | 3 | 1.9 | 0.514 | 0.477 | 0.410 | 0.801 |
| MSSR11 | 57 | 15 | 7.5 | 0.785 | 0.870 | 0.854 | 2.293 |
| MSSR14 | 28 | 12 | 4.8 | 0.639 | 0.794 | 0.769 | 1.889 |
| Mean | 26.4 | 9.0 | 4.6 | 0.553 | 0.700 | 0.666 | 1.591 |

NG, genotype number; A, number of alleles; Ae, effective number of alleles; Ho, observed heterozygosity;

He, expected heterozygosity; PIC, polymorphic information content; I, Shannon's Information index

**Conclusions**

The Hokkaido accessions of *M. sinensis* are differentiated from the other southern …

**References**

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