
**AZ ÉVELŐ ROZS (SECALE CEREANUM) HASZNOSÍTÁSÁNAK
LEHETŐSÉGEI MINT ALTERNATÍV ENERGIANÖVÉNY****SIPOS TAMÁS**

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ABSTRACT – Utilization of Perennial rye (*Secale cereanum*) as an alternative energy crop

Genetic diversity in the genus *Secale* includes perennation, the ability of a plant to survive several years after flowering. The perennial wild rye species (*S. montanum* Guss. and *S. africanum* Stapf.) are used as forage grasses in the regions of their natural occurrence (REIMANN-PHILIPP 1995).

Perennial rye (*S. cereanum*) is a stable hybrid of the winter rye (*S. cereale* L.) and the perennial wild rye (*S. montanum* Guss.). Systematic breeding of perennial rye cultivars from the cross was initiated as early as 1906, and some forage rye cultivars derived from species hybrids expanded in eastern Europe and south-western Asia. In Hungary the crossing among the *Secale* species was made by Hódosné in the late 1950s and she studied the morphological, cytological and physiological properties of progenies. The most problem was the high degree of sterility in the progenies, so the first varieties were born after many ten years of breeding work. In 1998 there were registered 2 perennial rye varieties in Hungary, which were originated from these crossings. One of these varieties is 'Kriszta' was bred in the Research Institute of University of Debrecen.

Because of its low grain production and high green yield 'Kriszta' is primarily grown for green forage mainly on poor sandy soils. With our perennial rye variety one grain harvest could be combined with two green forages in successive years. We have been researching the possibilities of mixed culture with forage legumes for more years.

Dry matter production of perennial rye is higher with 20-50 % than annual rye under similar growing conditions. This production would be utilizable onto power generation by burning or fermenting to biogas.

Keywords: perennial rye, dry matter production, energy crop

Kulcsszavak: évelő rozs, szárazanyag-hozam, energianövény