



ARTONIS

Perennial Ryegrass (4n)

Lolium perenne L.

Unique combination of yield and quality

Things to know

As can be seen from its name, Artonis belongs to the "AR"-type, i.e. very early maturing group of perennial ryegrass. Heading date is 2 days later than for Arvicola, by which it is the latest maturing variety of the "AR"-group. Artonis is based on Swiss ecotype populations that have been collected in 1991 at higher altitudes (1000 m.a.s.l) and that have been transformed to the tetraploid state in 1999 by a colchicine treatment. In the official trials from 2014 to 2016 convinced by best results in yield as well as in digestibility. Therefore, Artonis is the new standard to beat in the early maturing group.

Descent

Base material

Selection within tetraploid Agroscope breeding material based on a colchicine treatment of ecotypes collected from high altitudes (1'000 m.a.s.l.)

M0 seed

Row trial 2007 (LP0795) with seed harvest on 6 half-sib families from a polycross with 6 clones.

Literature

Suter D., Hirschi H.-U., Frick R., 2017. Englisches Raigras: neue Sorten für den Schweizer Kunstfutterbau empfohlen. Agrarforschung Schweiz 8(7), 292-299

National listing

Situation in Switzerland

On the Swiss List of Recommended Varieties of Forage Plants since 2017

Situation abroad

Agronomic characteristics

Results of the official Swiss variety trials 2014-2016 (Suter et al. 2017) (4n, früh)

| | ARTONIS | Mean |
|---------------------------------------|---------|------|
| Yield | 2.6 | 3.9 |
| General impression | 2.6 | 2.8 |
| Juvenile growth | 1.6 | 1.7 |
| Competing ability | 4.8 | 5.0 |
| Persistence | 3.7 | 3.9 |
| Resistance to winter conditions | 4.6 | 4.4 |
| Resistance to leafspots an rust | 2.3 | 2.5 |
| Digestibility of the organic matter | 3.5 | 4.6 |
| Persistence at higher altitudes | 1.9 | 2.2 |
| Index (weighted average of all notes) | 2.9 | 3.2 |

Scoring scale 1 = very good; 5 = medium; 9 = very poor

Yield Mean of 4 experimental sites over 2 years

Mean Mean value of standard varieties

Description according to UPOV guidelines

DUS test conducted at Scharnhorst, BSA (DE), 2014-2015

| UPOV No | Characteristics | State of expression | Note |
|---------|----------------------------------------------------------------|----------------------------|------|
| 1 | Ploidy | tetraploid | 4 |
| 5 | Leaf: intensity of green color | medium to dark | 6 |
| 7 | Plant: vegetative growth habit (without vernalization) | semi-erect to intermediate | 4 |
| 10 | Plant: tendency to form inflorescences (without vernalization) | weak | 3 |
| 11 | Time of inflorescence emergence (after vernalization) | very early to early | 2 |
| 14 | Flag leaf: length | medium to long | 6 |
| 15 | Flag leaf: width | broad to very broad | 8 |

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