



ARCTURUS

Perennial Ryegrass (4n)

Lolium perenne L.

The first organic perennial ryegrass variety of Agroscope

Things to know

Arcturus is our earliest variety of perennial ryegrass, requiring an early harvest (beginning May) to get a high quality forage. Furthermore, Arcturus is our first variety bred under organic conditions. In the first main season and under conventional conditions, it showed 13% higher yield than the variety Artesia. In organic plot trials, Arcturus showed lower weed infestation than observed for Artesia. Seed multiplication of Arcturus will be performed under conditions of organic agriculture.

Descent

Base material

Selection in early Agroscope breeding material originating from a colchicine treatment of Swiss ecotypes

M0 seed

Row trial 2004 (LP0475) under organic conditions with seed harvest on 9 half-sib families of a polycross with 9 clones.

Literature

Suter D., Frick R., Hirschi H.-U., 2023. Sortenprüfung Englisches Raigras: Sechs Neuzüchtungen nehmen die agronomische Hürde. Agrarforschung Schweiz 14(1), 122-129

Kempf K., Schubiger F.-X., Tanner P., Grieder C., 2020. Mehr Gene, mehr Leistung: die neuen Englisch-Raigras-Sorten von Agroscope. Agrarforschung Schweiz 11(1), 1-8

National listing

Situation in Switzerland

On the Swiss List of Recommended Varieties of Forage Plants since 2013

Further registered in the following countries

LUX

Agronomic characteristics

Results of the official Swiss variety trials 2020-2022 (Suter et al. 2023) (4n, früh-mittelfrüh)

	ARCTURUS	Mean
Yield	4.9	4.2
General impression	2.9	2.6
Juvenile growth	2.3	2.1
Competing ability	4.2	4.3
Persistence	2.9	2.9
Resistance to winter conditions	3.5	3.3
Resistance to leafspots and rust	3.7	3.6
Digestibility of the organic matter	2.3	3.3
Persistence at higher altitudes	2.8	2.2
Index (weighted average of all notes)	3.4	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 (DEU), 2010-2012

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

