



Seed Genetics Australia

SuperCuf Alfalfa

Origin and Breeding

'SuperCuf' was developed by Seed Genetics Australia Pty Ltd by selection among disease-resistant survivors from old fields of 'Cuf101' and Sequel with subsequent pollination from superior selections from 'Sequel'. Plants were selected on plant characteristics, superior fodder yield, reliable seed production and improved disease and pest resistance. In each cycle of selection plants with superior features were retained and others were eliminated before flowering.

The Australian variety 'Sequel' has performed very well in Argentina, northern New South Wales and southern Queensland. Cuf101 is an important American aphid-resistant variety which was used in the breeding of both 'Siriver' and 'Sequel'. The aim was to produce a broadly adapted and high yielding variety by selection of superior plants from within proven varieties. Traditional breeding methods were used to develop 'SuperCuf'.

Agronomic characters

Plants are moderately tall with erect leafy stems. SuperCuf plants are **winter active (rating 9)** with strong autumn and spring growth and vigorous recovery from cutting or grazing. It is early flowering with flowers varying from light to dark blue, rarely white. In resistance to pests and diseases SuperCuf is superior to 'Cuf101' and 'Sequel' (see table 1). Independent tests for levels of resistance in 'SuperCuf' were conducted by Crop Characteristics Inc. MN, USA.

Table 1 Disease and pest resistance of 'SuperCuf', 'Cuf101' and 'Sequel'

	Spotted aphid	Blue aphid	Pea aphid	Phytophthora	Anthracnose
SuperCuf	HR*	HR	R	R	LR
Cuf101	HR	LR	R	MR	S
Sequel	R	LR	R	MR	R

* HR – highly resistant, R – resistant, MR – moderate resistant and S - susceptible

In a comprehensive trial established at Keith in South Australia in 2003, the performance of 28 varieties and elite lines were compared in an irrigated replicated field trial. The highest yielding varieties over three hay cuts in 2003-04 were 'SuperSiriver' and 'SuperCuf' which averaged 2.5 tonnes/hectare. In this trial 'SuperCuf' outyielded both 'Sequel' and 'Cuf101' by 20% (see below).

SuperCuf	2.49 t/ha
Sequel	2.06 t/ha
Cuf 101	2.08 t/ha
LSD (5%)	0.27 t/ha.

The above trials indicate the 'SuperCuf' is clearly more productive and more pest and disease resistant than its parent varieties 'Cuf 101' and 'Sequel'.

SuperCuf is protected under Plant Breeders Rights.

For more information please visit our website.

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