



Seed Genetics Australia

SuperSonic Alfalfa

Origin and Breeding

'SuperSonic' was developed by Seed Genetics Australia by recurrent mass selection in a population arising from recombination among disease-resistant survivors from old fields that have been grazed by livestock of varieties of US and Argentine origin and old fields of SuperSiriver. Plants were selected on plant characteristics of finer stems, high stem to leaf ratio, superior fodder yield, reliable seed production and improved disease and pest resistance and persistence under grazing. In each cycle of selection plants with superior features were retained and others were eliminated before flowering.

Agronomic characters

Plants are moderately tall, semi-erect with fine stems frequently with leafy branches and higher to leaf to stem ratio than the US parents. 'SuperSonic' plants are **highly 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.

SuperSonic has much higher leaf to stem ration and finer stems than the US parents, particularly close to the crown of the plant. This is an advantage in close grazed pastures and intensive forage cutting programs. The increased stem to leaf ratio will also give higher protein and digestibility. Independent tests for levels of resistance were conducted by Crop Characteristics Inc. MN, USA. to the recognized international standard, see below

Table 1 Disease and pest resistance of 'SuperSiriver' and 'SuperSonic'

	Spotted aphid	Blue aphid	Pea aphid	Fusarium	Phytophthora	Anthraco-nose
SuperSirive	R	HR	HR	HR	R	MR
SuperSonic	R	HR	R	HR	HR	MR

* 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 'SuperSonic', 'SuperSiriver' and 'SuperSequel' which averaged 2.5 tonnes/hectare. In this trial these three varieties outyielded '**Siriver**' by **10%**.

In 2005, in replicated cutting trials in Argentina, 'SuperSonic' outyielded the check Argentinian leading variety **Monarca** by **13%**, the completed 2006 trial information will be available later but preliminary results show similar results.

SuperSonic will be protected under Plant Breeders Rights .

For more information please refer to our website.

[Http://www.seedgeneticsaustralia.com](http://www.seedgeneticsaustralia.com)