

# Snowy – the best Australian soybean

## CSIRO Plant Industry



Australian soybean growers in the Riverina region of NSW and northern Victoria are welcoming CSIRO Plant Industry's latest soybean variety, Snowy, that combines both high yield and high quality. Snowy is suitable for tofu making, providing growers with up to a \$200 per tonne premium compared to soybean sold for oil.

### Soybeans in the Riverina

The Riverina district is one of Australia's highest quality soybean producing regions, responsible for producing about 20 per cent of Australia's soybeans destined for human consumption.

Soybeans in the Riverina are grown under irrigation in rotation with other crops including rice. They can be an important part of crop rotation returning nitrogen to the soil.

Soybean growers in the Riverina have typically aimed for the higher end of the soybean market by growing soybeans for human consumption. However, the lack of a suitable variety that has both reliable high yield and good quality traits has limited their ability to do so.

Snowy is the first variety where both good yield and good quality have been combined for a soybean suitable for the Riverina.

### Agronomic properties

Since 1998 Snowy has been included in field trials in the Riverina region of NSW and northern Victoria managed by the Victorian and NSW Departments of Primary Industries.

In a comparison between the agronomic traits of other leading soybean varieties Snowy stacks up very well. Very importantly it yields similar to the highest yielding varieties, Djakal and Empyle.



*Dr Andrew James (left), CSIRO Plant Industry, breeder of 'Snowy', with collaborators Dale Grey (centre), Victorian Department of Primary Industries and Luke Graynor (right), NSW Department of Primary Industry who assisted with field testing 'Snowy'.*

It is also an early maturing variety, a trait that is preferred as it helps to avoid frosts in Victoria and Autumn rains in NSW that may damage the crop.

Another limiting factor for soybean in the Riverina is phytophthora root rot. Without the release of resistant varieties, phytophthora would stop cropping in the region. Snowy has a different type of phytophthora resistance from existing varieties providing genetic diversity for resistance in this phytophthora-prone region.

#### **Tofu making properties**

The highest value end use of soybeans is tofu and soy milk for human consumption.

The minimum generally accepted protein content in soybeans for use in tofu and soymilk is 40 per cent and larger soybeans generally produce a higher yield of soymilk and tofu. Snowy's protein level is well above this threshold and it has the largest seed size of all varieties making it more likely to produce a high yield of good quality tofu or soy milk.

Snowy's quality in relation to tofu texture really sets it apart from other varieties with the highest gelling score of all tested varieties. Japanese testing has confirmed these results and has recognised Snowy as a favourable variety for tofu production.

This is good news for growers who receive a premium of between \$50 and \$200 a tonne for soybeans that can be used for tofu production.

#### **Availability**

Seed of Snowy is commercially available from seed merchants in the Riverina region.



*Snowy is an excellent variety for tofu production – high in protein with favourable gelling properties.*

#### **Contact Us**

Phone: 1 300 363 400  
+61 3 9545 2176

Email: [enquiries@csiro.au](mailto:enquiries@csiro.au)

Web: [www.csiro.au](http://www.csiro.au)



**Grains Research &  
Development Corporation**

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