



FELICITY PRITCHARD
Oilseed Industry Development Officer –
Victoria and southern New South Wales
Irrigated Cropping Forum
Grains Innovation Park
110 Natimuk Road, Horsham, Vic 3401
Ph: (03) 5382 4396 or 0427 600 228

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OILSEEDS NEWS

DOUBLE CROPPING WITH SOYBEANS FIELD DAY A SUCCESS

A hot barbecue breakfast consisting of sausages, cinnamon bananas, French toast, mushrooms, tomato, onion, maple syrup and good old bacon and eggs was served to about 30 Riverina growers as the sun rose over a neighbouring soybean crop in southern NSW on 18 March.

But that wasn't all that was on the menu. Growers were also served up a wealth of invaluable information about double cropping with soybeans at Paul and David Bellato's irrigation property on the outskirts of the township of Coleambally.

The meeting and crop inspection covered soybean varieties, water use patterns, management, IPM and growers' personal experiences with soybeans. Also on the agenda were talks by about irrigated barley,



SOYBEAN GROWER: David Bellato hosted the double cropping field day on his Riverina property.
Photo: Felicity Pritchard.

the Better Oilseeds project, risk management for canola and pulse crops. David Bellato gave a review of how they sow their crops, their rotations and what yields they have achieved.

The barbecue breakfast was funded by the Oilseeds Industry Development Officer project of the AOF and GRDC.

The field day complemented a separate double cropping field day for northern Victoria facilitated by the Victorian DPI and Victorian Irrigated Cropping Council in February, which showcased the final season of a three-year trial.

Coleambally District Agronomist with NSW DPI, Kieran O’Keeffe, summed up what he thought of the day with the statement: “The day was really successful in that it provided information to blokes (and ladies) who now have to think differently because of the lack of water.”

He said once upon a time, 80 per cent of irrigation water in the area was used on rice crops. The rice crop is now at around 2 per cent of its normal area, now with a similar area to soybeans in southern NSW.

Soybeans are low water-use crops compared with other irrigated summer crops and have the benefit of a very short growing season, allowing them to fit in between successive winter crops for a very water-use efficient farming system. Soybeans are also a much lower-cost summer crop than maize, which was particularly important to growers at present as input costs skyrocket.

In fact, David Bellato said that no fertiliser was used in his soybean crops, instead relying completely on residual nutrients from the preceding winter crop.

“The day focused on more stable crop rotations,” Mr O’Keeffe said.

Some growers in the region have not grown soybeans for a long time, and are being educated about the new generation of higher yielding varieties that have a shorter growing season which allows for double cropping.

NSW DPI soybean and pulse research agronomist, Luke Gaynor said that Djakal and Snowy preferred culinary varieties for the region.

“Outclassed and not preferred are the varieties Curringa, Bowyer and Stephens.”

Mr Gaynor told the growers that soybean crops in the Riverina could be sown as late as Christmas with only over small yield penalties, allowing for soybeans to be sown after a late wheat crop. Very few summer crops have this advantage. The early maturity of newer varieties also allows for a winter crop to be sown after the soybeans are harvested, even if sowing in late in December.

Growers were reminded that early maturity was important as it allows harvesting of the soybeans in late March, early April before autumn rains begin.

Mr Gaynor has also conducted long-term time of sowing trials on soybeans as part of his research work with the National Soybean Improvement Project funded by GRDC.

He said in the last five years or so, that he found very little yield difference between plots sown from the week of 20 November and those sown a month later. Temperature at the end of the season was an important factor, as cooler below average temperatures slow the development of the plant. That is why it is so important to plant as early as possibly, to help guard against cool finishes, he said.

However, he said plant densities needed to be slightly higher with the late sowing to achieve similar yields – boosted from 30-35 plants per square metre to 40-45 plants per square metre when sowing late. From mid December is considered late.

“Sowing from mid November is highly desirable, and this is the ideal situation. But the ability to sow later gives you a lot more flexibility in terms of double cropping,” he said.

Luke said that yields penalties increase significantly for Southern soybean crops sown after Christmas.

“If you sow after Christmas, this will reduce the amount of biomass prior to flowering, which translates into yield loss. The crop will never reach full canopy by mid-flowering.”



WATER WISE: Luke Gaynor demonstrates the moisture probes in one of David and Paul Bellato's soybean crops which are part of the Better Oilseeds project. Photo: Felicity Pritchard.

He also advised growers to never cut corners with December sowing and to use high quality seed at higher sowing rates.

Consultant irrigation agronomist, Paul Hudson, also showed growers graph of water use patterns in a soybean crop on the property.

The Better Oilseeds – Better Soybeans project in conjunction with NSW DPI and Coleambally Water Smart has help fund water use monitoring to look at water use within soybeans on raised beds.

Enviroscan probes were used to monitor soil water movements and “Irrimate” equipment to measured flow rates on and off the field, infiltration rates, water application efficiency and the distribution uniformity. This work identified an opportunities to save small amounts of water per hectare per irrigation.
