



## Improve Canola Yield with EzyFlow Nano Calbud

During 2016, a canola variety trial was conducted in Berrigan, NSW. This was a paddock trial; the whole paddock was split into thirds (three varieties) then four treatments were applied across each variety. The trial was conducted by Berrigan Rural in conjunction with Precision Agriculture.

Below is a summary of the trial data looking at the changes in yield across varieties and treatments. While this was a variety trial, the interest was in the benefit of applying EzyFlow Nano Calbud and whether that benefit was consistent across varieties and type.

In the trial, there was a positive response to the application of EzyFlow Nano Calbud which was applied at the recommended rate and time of 2L/ha at 4-6 leaf stage for each variety.

The response above the untreated plot ranged from 258kg/ha to 809kg/ha. This is consistent with other trials across Australia where EzyFlow Nano Calbud has been applied to Canola.

The response to the application of Prosaro alone was greater than the application of EzyFlow Nano Calbud alone, with an increase over the untreated ranging between 1057-1447kg/ha.

The high rainfall experienced during 2016 increased the potential for disease (Sclerotinia). The variation in yield by treating the crop to minimise the impact of disease highlights the potential for yield loss due to disease.

When combined, EzyFlow Nano Calbud and Prosaro gave the greatest yield response with a range from 1217 - 2594kg/ha compared to the untreated areas.

This shows the benefit of meeting the plants nutritional requirements to maximise yield and the application of a fungicide to maintain the crop yield.

EzyFlow Nano Calbud retails for less than \$10/L (\$20/ha); at \$500/t for canola, this equates to an additional \$109/ha (258kg/ha yield increase) to \$384/ha (809kg/ha yield increase) net of the cost of EzyFlow Nano Calbud.



EZYFLOW NANO

### CALBUD



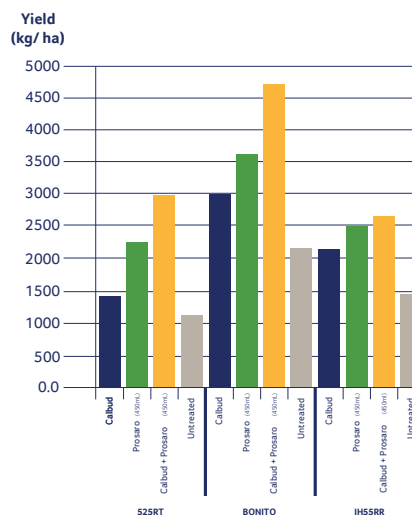
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Technical Crop Nutrition Manager

Canola Variety	Treatment & Timing	Yield (kg/ha)	Increase over untreated	
525RT	Calbud	4-6 leaf	1412.0	257.7
	Prosaro (450mL)	20% flowering	2230.3	1076.0
	Calbud + Prosaro (450mL)	4-6 leaf + 20% flowering	2925.7	1771.4
	Untreated	-	1154.3	-

BONITO	Calbud	4-6 leaf	2974.2	808.9
	Prosaro (450mL)	20% flowering	3612.7	1447.4
	Calbud + Prosaro (450mL)	4-6 leaf + 20% flowering	4759.4	2594.1
	Untreated	-	2165.3	-

IH55RR	Calbud	4-6 leaf	2121.2	689.7
	Prosaro (450mL)	20% flowering	2488.8	1057.3
	Calbud + Prosaro (450mL)	4-6 leaf + 20% flowering	2648.3	1216.8
	Untreated	-	1431.5	-



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The 2016 Berrigan trial demonstrated the benefit of applying EzyFlow Nano Calbud to canola. During 2017 it was decided to follow on from this and to utilise plant tissue testing to monitor canola nutrient status before and after the application of EzyFlow Nano Calbud. After application, additional tissue tests were conducted to monitor the crop and to correct any identified deficiencies.

The data in Table 1 are tissue test results for canola (Variety: Bonito), grown in Finley, NSW, 2017. The canola was seeded on April 22 and irrigated with 25mm through a lateral irrigator. It was at the 2-3 leaf stage on May 16 and the first two tissue samples (May 26 & June 13), were collected prior to the application of 2L/ ha of EzyFlow Nano Calbud, which was applied on June 13.

		26/05/2017	13/06/2017	21/07/2017	16/10/2017
%	N	6.91	4.68	4.83	3.82
%	P	0.64	0.77	0.69	0.24
%	K	4.93	6.05	4.88	3.54
%	Mg	0.63	0.82	0.63	1.2
%	Ca	1.39	2.02	1.44	2.67
%	S	0.69	0.78	0.77	1.25
ppm	B	26.9	52.7	36.3	139
ppm	Zn	37.8	187.2	97.2	37.3
ppm	Mn	217	275	151	212
ppm	Fe	150	212	140	229
ppm	Cu	6.8	8.2	7.8	33.2
ppm	Na	0.79	0.64	0.53	0.56



Table 1: 2017 Tissue Test Results

Subsequent tissue test results showed a decline in plant tissue nutrient status. Some of the decline can be attributed to nutrient dilution due to the vigorous growth of the crop; some may be normal nutrient cycling within the plant throughout the growing season.

With good biomass and soil moisture, the crop showed potential for high yield. Therefore; the decision was made to apply a second application of EzyFlow Nano Calbud to maintain calcium, magnesium, zinc and boron levels during flowering. The EzyFlow Nano Calbud was applied at a rate of 1.5L/ha; the rate was determined by the volume of product the farmer had on hand. It was applied with Prosaro in late August; this meant no additional pass over the paddock was required.

The crop yielded 4.2t/ha with 43% oil.

## Conclusions

- Good nutrition, in conjunction with good plant hygiene, is necessary to maximise yield potential
- Apply EzyFlow Nano Calbud early (4-6 leaf stage) - The early application provides the best crop response as it allows time for good plant development
- Should an early application not be possible, a benefit may still be achieved from later applications (up to and during flowering)
- Tissue sampling can be used to determine if other or additional nutrients are required
- Similar yield and oil/ protein benefits have been achieved in Lupins, Faba Beans, Lentils, Chickpeas and Soybeans

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