



SUGARCANE NUTRITION



Stoller

Unleashing The Power Of Plants

HIGHER YIELDS, HIGHER RETURNS WITH LIQUID FERTILISERS

Granular fertilisers for sugarcane can be very inefficient. Nutrients are not always readily available to the crop and are often tied up in the soil or washed away with rain. Getting the most out of your fertiliser by optimising efficiency is critical to give crops the best possible start and make the most of your investment in fertiliser.

Liquid fertilisers with Stoller Technology contain readily available nutrients. These nutrients are less likely to be tied up in the soil or easily leached away – significantly increasing fertiliser efficiency. More fertiliser is available to the crop, which means a better return on your fertiliser investment.

CONTACT STOLLER AUSTRALIA ON 1800 FERTILISER OR EMAIL INFO@STOLLER.COM.AU

PUTTING LIQUID FERTILISERS TO THE TEST

Stoller Australia rigorously tests all of their products and trials since 2009 clearly show the benefits of their ClearStart liquid fertiliser program in sugarcane.

Stoller's sugarcane program was tested against regular granular fertiliser programs on a commercial cane farmer's property with five years of replicated trials and four years of commercial trials. The effects of the program on cane establishment, cane yield and sugar yield were measured and the increase in income and return on investment calculated.

Trials were conducted on a commercial farmer's property in years that coincided with dry starts as well as those with high winter and summer rainfall followed by a dry finish. The liquid fertiliser program performed extremely well under all these conditions, consistently producing higher yields of cane and sugar than granular fertiliser programs.

In 2013, Stoller went to market with this program, which is now available to all growers.

REPLICATED TRIALS¹

The liquid fertiliser program increased cane yield by an average of 10.2% (Figure 1) and total sugar yield by 11.8% (Figure 2) compared to the farmer's normal granular fertiliser program. Five years of replicated trials were run on a commercial sugar cane plantation in Mackay, Queensland during 2009–2014 and will continue for the life of the crop.

Stoller's ClearStart 22KZ and Stoller's Action 5 were applied as part of the program along with the trace elements Stoller's Copper Chelate and Stoller's Zinc Chelate (as determined by soil tests).

RETURN ON INVESTMENT

The increases in cane and sugar yield translated into an increased total income of \$1,464 per hectare, an increase of 8.77%, over the five years. This also takes into account the cost of the products. The return on investment was \$3.32 for every dollar spent.

¹ Trials were conducted on a commercial sugarcane farmer's property in Mackay, Queensland. Plots were eight rows, replicated six times. Cane was cut by hand at harvest. Data presented is the trial results over five years.

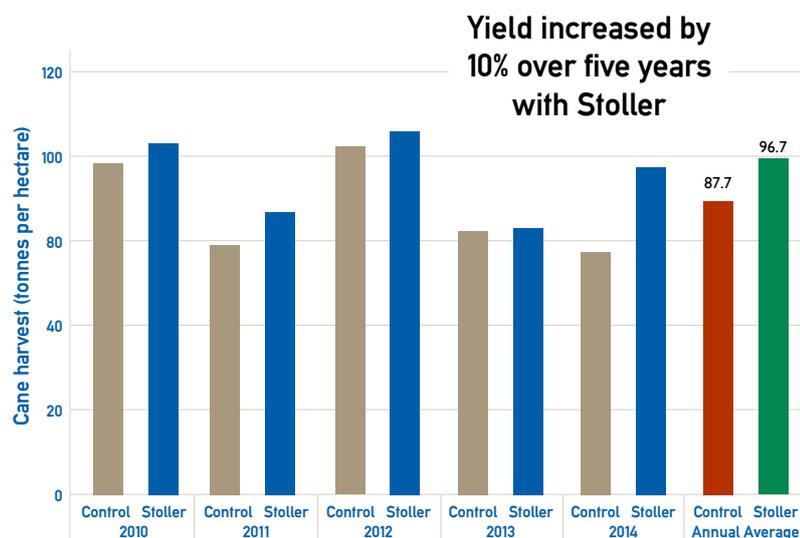


Figure 1 Cane yield (tonnes per hectare) has been higher with the Stoller program in every year, and increased by 10.2 per cent on average over the five years.

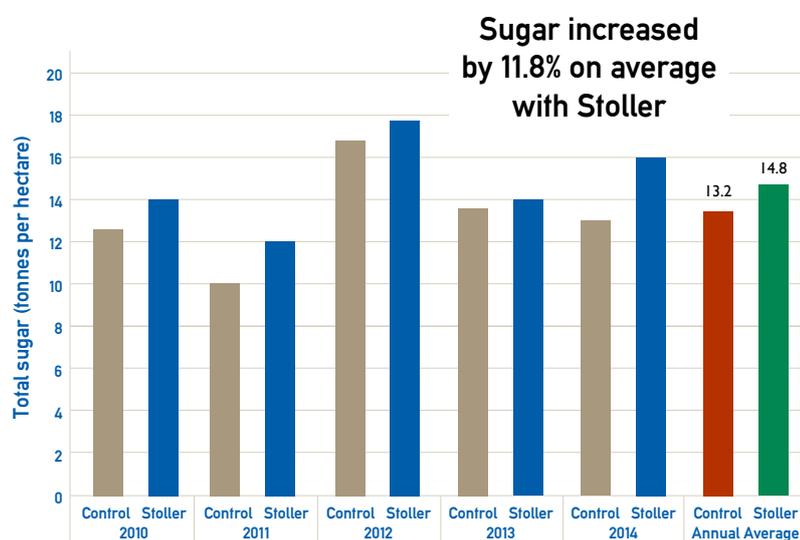


Figure 2 Average sugar yield (tonnes per hectare) increased by 11.8 per cent with Stoller program.



LARGE-SCALE COMMERCIAL TRIALS²

Stoller's liquid fertiliser program was tested against a commercial farmer's current practice of using granular fertiliser. The commercial trial has been running from 2010 to 2014 in Mackay, Queensland and will continue for the life of the crop.

Stoller's liquid fertiliser program increased cane yield by 12.6% in total (Figure 4) and total sugar yield by 11.8% (Figure 5) compared to the farmer's normal granular fertiliser program. Stoller's ClearStart 15KZ+N and Stoller's Action 5 were applied as part of the program along with the trace elements Stoller's Copper Chelate and Stoller's Zinc Chelate (as determined by soil tests).

THE BOTTOM LINE...

The increases in cane and sugar yield translated into a total increased income of \$1,617 per hectare, 9.38% increase over the four years. This takes into account the cost of the products. The return on investment was \$4.32 for every dollar spent. On an average 100 ha farm this would mean \$161,700 extra income for the period.

² Trials were conducted on a commercial sugarcane farmer's property in Mackay, Queensland. Treated area was 0.68 ha, control area was 0.68 ha. Cane was harvested with commercial equipment as per the farmer's normal practice. Data presented is the harvesting records for the last four years.

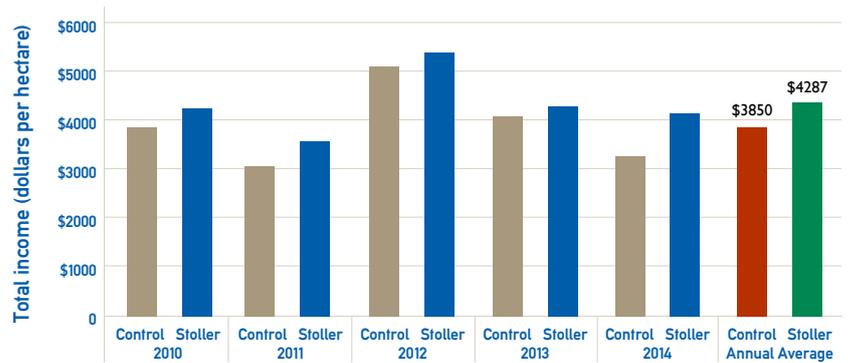


Figure 3 Income increased by over \$1,400 per hectare (8.77%) with the Stoller program compared to the grower's standard granular fertiliser program.

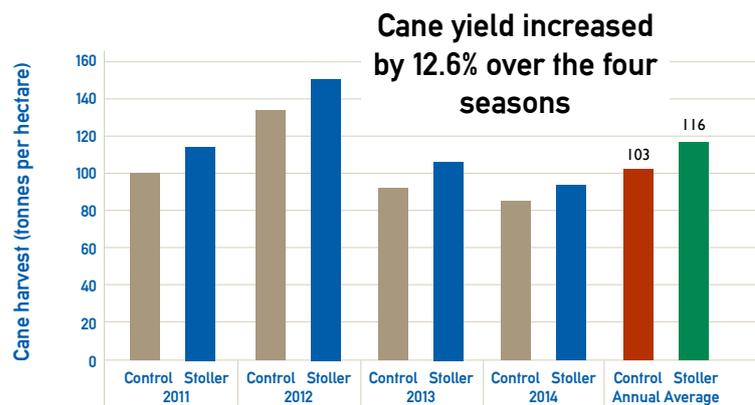


Figure 4: Cane yields (tonnes per hectare) were higher each year with the Stoller program, with a total increase in tonnes of 12.6% over the four seasons.

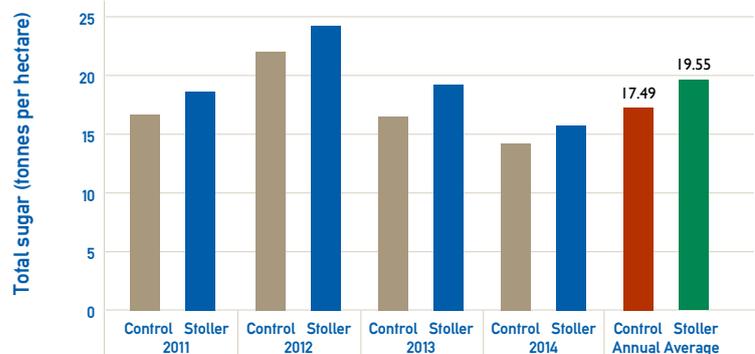
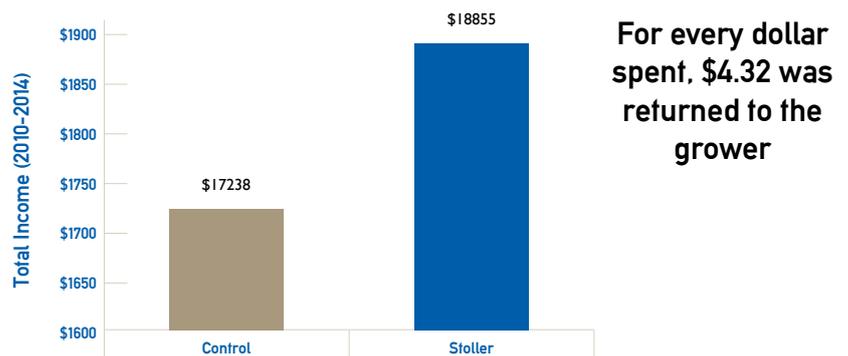


Figure 5 Sugar yields (tonnes per hectare) were higher each year with the Stoller program – with a total increase of 11.8% over the four seasons when compared to the farmer's granular fertiliser program.



For every dollar spent, \$4.32 was returned to the grower

Figure 6 Total income (dollars per hectare, after costs) increased by 9.8 per cent with the Stoller program.

THE STOLLER AUSTRALIA LIQUID FERTILISER PROGRAM

The basis of the Stoller program for sugarcane is Stoller's ClearStart range and Stoller's Action 5.

Stoller's ClearStart 15KZ+N contains highly available nitrogen (N), phosphorus (P) and potassium (K) with zinc (Zn), calcium (Ca), molybdenum (Mo) and cobalt (Co) that will not leach away easily and is less prone to being tied up in the soil. Stoller's ClearStart 15KZ+N also contains a slow release form of nitrogen – this is particularly effective for sugarcane.

With more fertiliser available for the crop, you get a better return on your fertiliser investment.

Stoller's Action 5 is a special formulation of calcium and Stoller's co-factors that helps the crops maintain vigour under varying weather conditions and helps to improve root growth.

Programs can be tailored for individual farmers based on soil tests – Stoller has a full range of liquid trace elements available to support their main program. Stoller recommends that farmers follow their normal practice of side-dressing with extra nitrogen and potassium if required, in line with their current farming practice.

There are two key application times in the Stoller Australia program – at planting and after harvest – both aim to enhance crop vigour when the crop needs it most.

KEY APPLICATION TIMES

CROP STAGE	PRODUCT	BENEFIT
Planting – directly to the billet in furrow	ClearStart 15KZ+N or ClearStart 22KZ at 10-50 L/ha Action 5 at 0.5-1 L/ha Trace elements as determined by soil tests	Encourages vigorous and even budburst
Canes 45–50 cm high	Side dress with nitrogen/potassium blend as per normal practice	Tops up nitrogen levels
Ratoons 0–30 days post-harvest	ClearStart 15KZ+N or ClearStart 22KZ at 10-50 L/ha Action 5 at 0.5-1 L/ha Trace elements as determined by soil tests	Encourages natural vigour after harvest with liquid nutrients that are more available to plants.
Canes 45–50 cm high	Side dress with nitrogen/potassium blend as per normal practice	Tops up nitrogen levels

The Stoller Australia program encourages uniform and vigorous bud burst, increases the number of canes per metre and helps produce larger, thicker and more vigorous canes. Increased vigour means higher yields of cane and sugar as well as healthier crops that are better able to cope with pests and diseases.

MORE EFFECTIVE NUTRITION

Stoller's liquid fertiliser programs can replace part of a granular fertiliser program with more efficiency. Trial results on-farm clearly demonstrate the improvements in yield and profit that can be achieved with these effective liquid fertilisers.

Talk to your Stoller Territory Sales Manager or local authorised dealer about a tailored liquid fertiliser program for your crops:

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