

BiOWiSH® Crop Liquid

BiOWiSH® Field Study: Forage Maize in Australia



Executive Summary

BiOWiSH Technologies partnered with a leading global fertilizer manufacturer and gCenseo as a third-party Contract Research Organization (CRO) to conduct a study to determine the effects of BiOWiSH® Crop Liquid enhanced urea fertilizer on forage maize production in the Riverina region of New South Wales, Australia. The trial compared two treatments:

- Grower's Standard (Control)
- Grower's Standard (Control) + BiOWiSH® Crop Liquid

This trial was performed as part of a series of trials in Australia.

Background

About BiOWiSH Technologies

Headquartered in Cincinnati, Ohio, BiOWiSH Technologies, Inc. is a global provider of biotechnology solutions. As a leader in the agricultural market, we help farmers increase crop production sustainably, safely and cost effectively. Our revolutionary BiOWiSH® Crop Liquid can be coated onto dry fertilizer or mixed with liquid fertilizer to create an enhanced efficiency fertilizer that optimizes yield potential, expresses plant vigor and improves soil productivity across a broad range of operating conditions, climates and environments. By unifying nature and science, BiOWiSH reinvents the way food is grown. For more information, visit biowishtech.com.

About gCenseo

gCenseo provides independent agricultural research in evaluation for crop products in Australia. Additionally, they provide scientifically based recommendations as part of a consultancy service as well as market research and assurance services.

BiOWiSH® Crop Liquid



- Optimizes yield potential
- Increases nutrient availability
- Enhances root development
- Improves plant vigor
- Enhances native microbial activity in the soil
- Improves soil productivity

Available Sizes

- 50 gal/190 L
- 264 gal/1000 L

Objectives

The objective of this study in New South Wales, Australia was to determine the effects of BiOWiSH® Crop Liquid technology, manufactured in the USA by BiOWiSH Technologies, Inc., on forage maize yield when added to the common regional fertility program used in the production area. The focus was on BiOWiSH® Crop Liquid's impact on total harvestable yield.

Implementation Program

For this study, the common regional fertility program included the use of 270 kg/ha (241 lbs/acre) of urea applied three days prior to planting, otherwise known as "Control". The Control was then compared to the same application coated with BiOWiSH® Crop Liquid. The plots were planted with Pioneer P1467 at a rate of 85,000 plants/ha (34,413 plants/acre) in single, unreplicated plots of 3.5 ha (8.6 acre).

| Treatment | Application Rate kg/ha [lbs/acre] | Application Phase |
|--|---|-------------------|
| Urea (Control) | 270 [241] | Pre-plant |
| Urea (Control) + BiOWiSH® Crop Liquid | 270 [241] | Pre-plant |

*BiOWiSH® Crop Liquid used at manufacturer's recommended rate.

Results

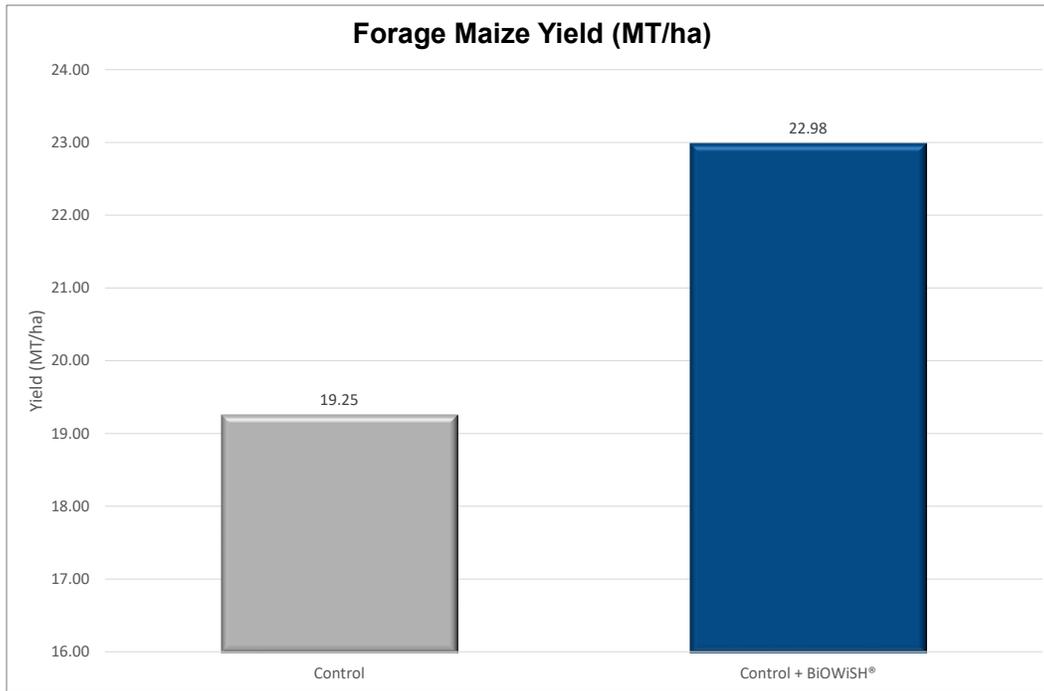
Yields were measured with weigh scales located on the haulout trailer. The results show that BiOWiSH® Crop Liquid increased yield by 19.38% over the Control. This provided the grower with an increase profit of \$659 USD/ha (\$267 USD/acre).

| Treatment | Yield MT/ha [tons/acre] | Yield Increase MT/ha [tons/acre] | Yield Increase % | Net Income USD/ha [USD/acre] | Profit Change USD/ha [USD/acre] |
|--|-------------------------------|--|---------------------|------------------------------------|---------------------------------------|
| Urea (Control) | 19.25 [8.59] | - | - | 3312 [1340] | - |
| Urea (Control) + BiOWiSH® Crop Liquid | 22.98 [10.25] | 3.73 [1.66] | 19.38 | 3971 [1607] | 659 [267] |

*1 acre = 0.405 hectares

**1 MT/ha = 0.446 US short ton/acre

***Yield in table is calculated on a "Dry Matter Basis".



**Yield in table is calculated on a "Dry Matter Basis".*

Conclusion

BiOWiSH® coated urea was evaluated on forage maize as a pre-plant application. When added to the Control, BiOWiSH® Crop Liquid enhanced urea fertilizer increased yield by 19.38%, resulting in an increased profit of \$659 USD/ha (\$267 USD/acre). This large increase in yield demonstrates that the addition of BiOWiSH® Crop Liquid to the common regional fertility program offers a significant return on investment opportunity to the farmer.



BiOWiSH® is a registered trademark of BiOWiSH Technologies International, Inc.

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