Results Sheet

Evaluating the effect of Manvert products to improve fruit set and yield in mango (*Mangifera indica*).

Manvert Foliplus

Foliplus is a complete organic biostimulant with four key ingredients, namely; amino acids, reducing sugars, seaweed extract and plant phytohormones. The synergistic effect of this formulation helps to improve vegetative growth, sprouting, fruit set and the weight and colour of the fruit.

Manvert Fruitsetter

Fruitsetter is a biostimulant with a rich formulation on molybdenum, amino acids, nitrogen and phosphorous. This improves flowering, fruit set and fruit filling.

1. Objective

The aim of this trial was to evaluate the effectiveness of two Manvert products in improving fruit set and yield in three mango cultivars – Kent & Keitt & Heidi.

2. Materials & Methods

The trial was established in 1ha blocks per cultivar. This resulted in between 7 and 10 treatment rows, depending on the length of the rows. The rows adjacent to the treated block were used as the control where the current farm programme would be followed.

A total of 10 treated and 10 control trees per cultivar were selected for assessment. The trees were selected using a random function on Excel. A total of 2 trees in 5 inner rows would be assessed for each treated and control block.
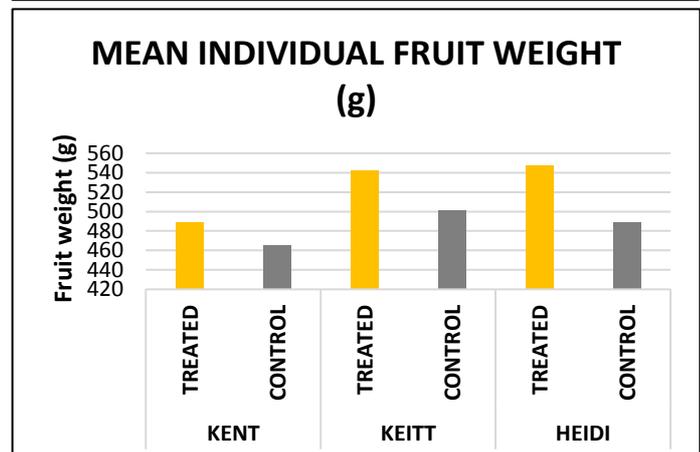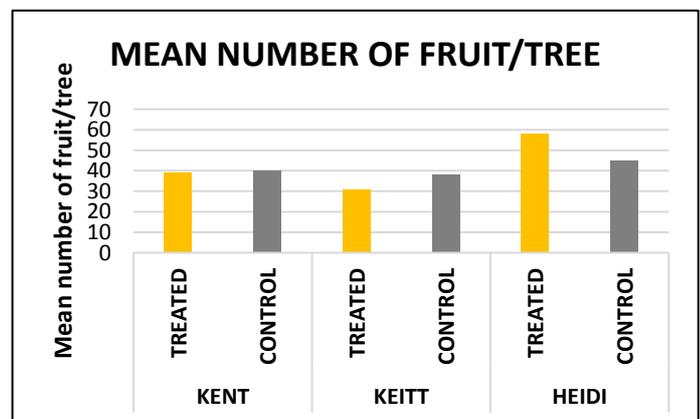
Treatments

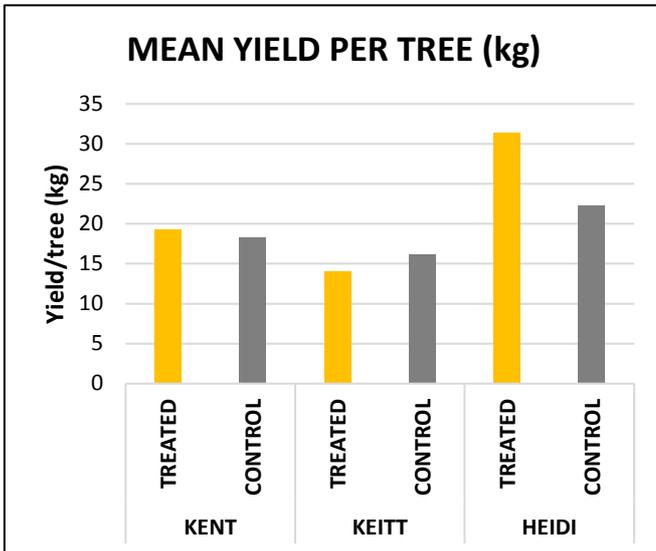| Treatment	Product	Dosage / ha	# applications
1	Foliplus & Fruitsetter	1.5 L	3
2	Control – Current Farm Protocol		

The products were applied at the start of flowering, 80% flowering and at the start of fruit set. Parameters evaluated:

1. Number of fruit/tree
2. Mean weight of 10 fruit per tree
3. Mean yield/tree

3. Results

Results Sheet

MEAN YIELD PER TREE (kg)

4. Discussion & Conclusion

Although the control trees had higher number of fruits for the Kent and Keitt the difference is not significant. The only significant difference was for Heidi, where the treated trees performed better than the control. For Kent, the performance for both treated and control were too similar with no significant differences. In the case of the Keitt, the large variances between trees (some trees with only 5 fruit, while others with as much as 90) and in the block in general lead to the results being inconclusive at this stage. It is only in the Heidi block where it can be concluded that the treated trees significantly outperformed the control.

In all cases the treated block had a higher mean fruit weight, but only in the case of the Heidi cultivar were the differences significant on the 5% level.

In Kent, the yield per tree was slightly higher than the control, yielding 1 kg more fruit than the control. This is however not a significant difference. In the Keitt, the control yielded 2 kg more fruit than the treated, but this too is not significant as the variance in the block was high. Only in the case of the Heidi cultivar, where the treated block yielded on average 9 kg more fruit per tree, were the differences significant on the 5% level.

The results of this trial and in particular the variability in performance between the cultivars suggest that cultivar specific recommendations may need to be made. In the case of the Heidi, the application of Foliplus and Fruitsetter as set out in this trial proved effective in significantly improving fruit set and yield, but only had an effect of increasing the mean fruit weight in the Kent and Keitt cultivars. The variability between rows and individual trees in the Keitt block negatively affected the results and they remain inconclusive at this stage. In the Kent block a higher application rate may have resulted in a more positive result but this will have to be tested further.

continuous advantage