



# SPINACH TRIAL

## COMPARING MOBILIZER AND PHOSCARE WITH FOSCHECK CONTROL

A field of Spinach was sprayed with Mobilizer® and Phoscare® combined and compared to a control site in which Foscheck had been applied.

The field site was seeded on the 18th April, the product was applied on the 7th May and the crop was harvested on the 23rd May. Phoscare was applied at 3L per hectare with Mobilizer at 2L per hectare.

The site was evaluated on the 21st May 2013, 8 replicates containing 50 plants were measured. The site was very wet on the day the measurements were taken.

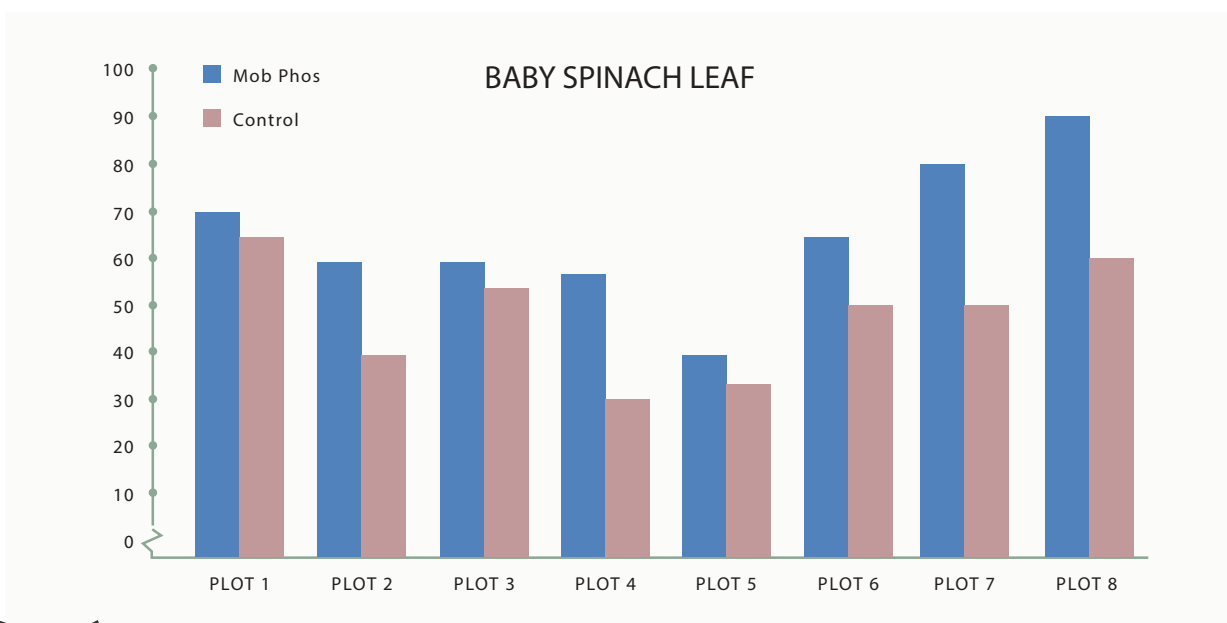
### METHOD

The sampling method involved taking a random location in the field and measuring out a plot 25cm/25cm. Every plant within this area was measure until 50 plants were taken with 8 replicates. The sites being compared were located in similar locations in the field to reduce differences in topography and variable soil conditions.

### RESULT

The results obtained are below:

Graph 1: Total weight in gms of leaf taken from 25cm<sup>2</sup> plots with 50 plants measured within it.



Graph 2. Total weight of the whole plant taken from 25cm<sup>2</sup> plots with 50 plants measured within it.

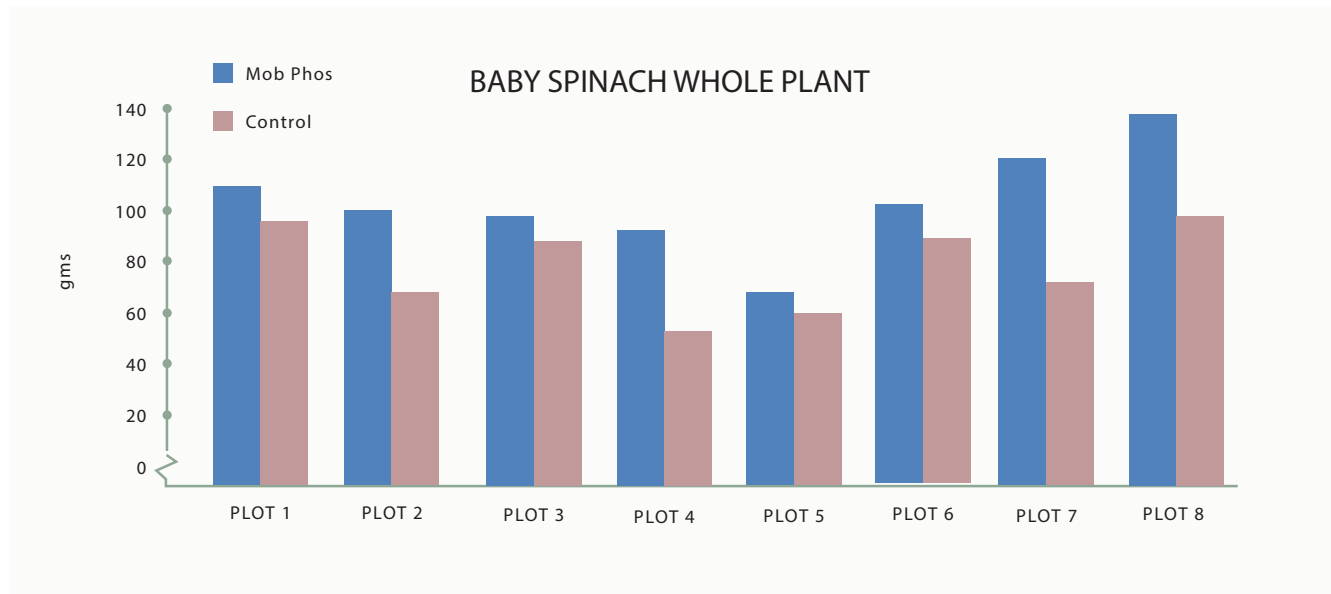


Table 1. Average and total weights of Spinach in grams calculated over the 8 trial plots combined.

| PLANT AVERAGE WEIGHT ALL PLOTS | GRAMS        | LEAF AVERAGE WEIGHT ALL PLOTS | GRAMS        |
|--------------------------------|--------------|-------------------------------|--------------|
| Mobilizer/Phoscare Treatment   | 100.75       | Mobilizer/Phoscare Treatment  | 63.25        |
| Foscheck Control               | 78.00        | Foscheck Control              | 48.5         |
| TOTAL                          | 23% Increase | TOTAL                         | 23% Increase |

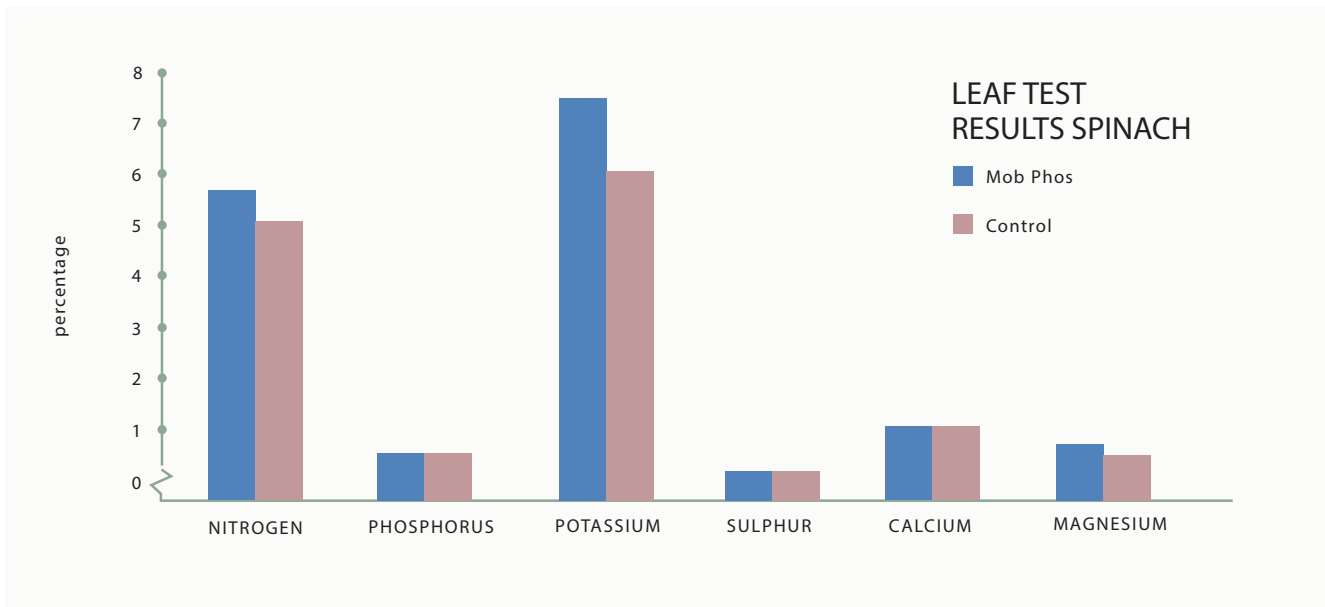
All of the 8 trial plots recorded heavier weights than the control.

Overall the average weight in grams for 50 plants in the Mobilizer-Phoscare plots came to 100.75 grams compared to 63.25 grams for the control. The increase of 23% was recorded in the total weight of the plant and surprisingly was found to be the same increase in the leaf measurement weights. This result would indicate that the main difference was in the total leaf and not in root growth.

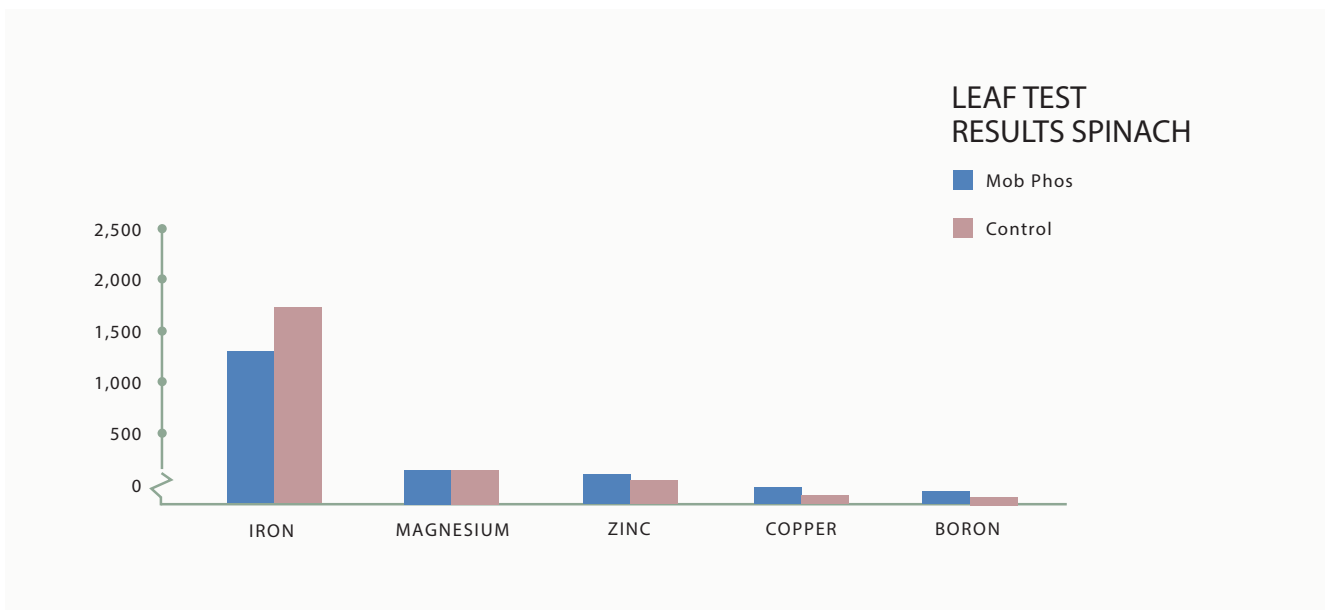


# LEAF TEST RESULTS

Graph 3: Leaf Test results from Spinach



Graph 4. Leaf Test results



## DISCUSSION

It appears that the total weight/yield of Spinach treated with Mobilizer and Phoscare was greater by 23%. This increase can only be attributed to increase leaf growth. The nutritional levels are very difficult to measure with such a young crop and due to iron contamination of the samples which maybe from water used to wash the samples. The biggest variation in the analysis results is with potassium from 6.1 in the Foscheck control to 7.4 in the Mobilizer Phoscare site.

Overall, there was a 23% increase in total weights of the plants, which would account for extra profit. Every site in the Mobilizer Phoscare site measured a higher yield.

## STATISTICAL ANALYSIS

Table 2. Baby spinach leaf results

| AVERAGE RESULT FOR EACH TREATMENT |             |
|-----------------------------------|-------------|
| Treatment A                       | Treatment B |
| 63.25                             | 48.50       |

The p-value is between 0.001 and 0.005.

This means that the probability of the differences between treatments being due to chance is between 0.1% and 0.5%.

The least significant difference, or LSD (95%) is 8.6.

Table 3. Spinach whole plant results

| AVERAGE RESULT FOR EACH TREATMENT |             |
|-----------------------------------|-------------|
| Treatment A                       | Treatment B |
| 100.8                             | 78          |

The p-value is between 0.005 and 0.01.

This means that the probability of the differences between treatments being due to chance is between 0.5% and 1%.

The least significant difference, or LSD (95%) is 15.

