RECYCLED ORGANICS COMPOST

ON A SYDNEY SPINACH FARM

THE FARM

The Portelli family has been growing vegetables in the north-western Sydney suburb of Maroota, NSW, for two generations. The farm is situated on a sandy loam that is characterised by low organic matter and low cation-exchange capacity. The operation is relatively high-intensity which does not allow time to grow cover crops so poultry manure has traditionally been used to supplement low organic matter. The soil is high in phosphorus as a result of the manure applied between each crop.

RECYCLED ORGANICS

The Portellis have turned to a recycled organics compost product (ANL Greenlife) as another method of introducing organic matter into their cropping system. Compost was broadcast-spread in November 2018 at three rates:

- 0 tonnes per ha (control)
- 5 tonnes per ha
- 10 tonnes per ha

RESULTS

The incorporation of compost into the Portellis' cropping schedule yielded a significant improvement in crop performance.

- Compost applied at 5 tonnes per ha increased silverbeet growth from an average 27g (dry weight) per plant to 36g, an increase of 33%. Applying compost at 10 tonnes per ha resulted in a further 14% growth to 41g dry weight per plant
- Compost applied at 5 tonnes per ha increased silverbeet height from 36cm to 44cm, an increase of 23%; there was little additional benefit from increasing the rate to 10 tonnes per ha
- Leaf colour was measured, however, there was no significant difference between the compost rates indicating that there was minimal nitrogen drawdown occurring, which can be a risk when applying additional organic matter. Some growers will increase their nitrogen fertiliser rate if signs of nitrogen deficiency are observed.

All measurements were collected two weeks prior to harvest.

ahr applied horticultural research

NSW EPA

This project is supported by the NSW Environment Protection Authority as part of *Waste Less, Recycle More*, funded from the waste levy.

NEXT STEPS

After seeing the results of the NSW EPA-funded trial, the Portelli family has decided to incorporate compost into their regular cropping schedule.

Soil nutrients (i.e. organic matter) and soil structure will be measured after an additional crop is harvested. This will give the compost time to fully decompose and for the soil health benefits to be fully realised.

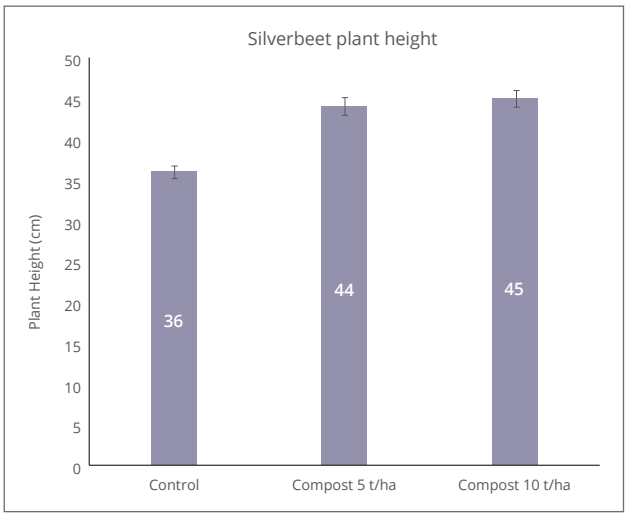

Figure 1. Recycled organics (compost) applied at either 5 or 10 tonnes per ha significantly increases the growth (dry weight) of silverbeet at harvest.

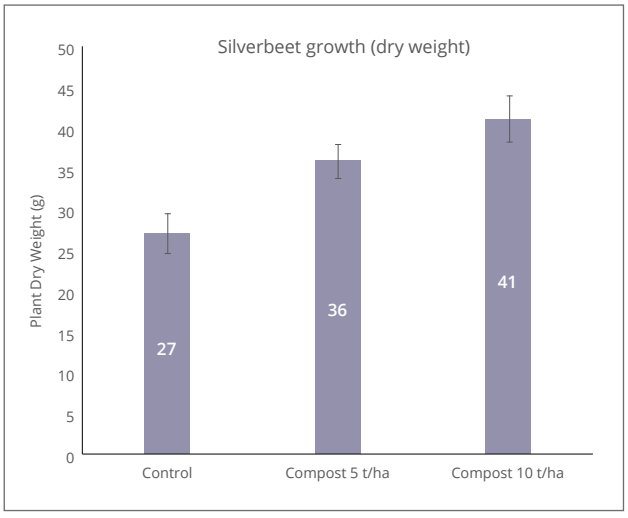

Figure 2. Recycled organics (compost) applied at either 5 tonnes per ha significantly increases the height of silverbeet plants at harvest.

No compost applied

Compost applied at 10 t/ha