

## Product Trials Report

CLIENT			
Company	Ecocamel	Contact Name(s)	Guy Cinnamon James McDonald
TRIAL INFORMATION			
Product	Plantsurge	Start Date	16 Dec 2019
Description of trial	To demonstrate the benefits of magnetic water.	Report Date	01 June 2020

RESULTS									
Plant Name	Indoor / Outdoor	Plant / Seed / Plug	Tap Water / Magnetic	No. of times watered	No. of flowers at once during peak season	Flower % increase/decrease	Max. flower size	Max. foliage size	Average Health (1-10)
Pansy	Outdoor	Plant	Tap Water	16	5	-80%	6.5 x 7cm	6 x 3cm	10
Pansy	Outdoor	Plant	Magnetic	16	9	+80%	6.5 x 7cm	6 x 3cm	10
Viola	Outdoor	Plant	Tap Water	14	3	-433%	4 x 4cm	4.5 x 2cm	9
Viola	Outdoor	Plant	Magnetic	14	16	+433%	4 x 4cm	4.5 x 2cm	10
Cyclamen	Indoor	Plant	Tap Water	28	16	-25%	3 x 3cm	5 x 6cm	7
Cyclamen	Indoor	Plant	Magnetic	28	20	+25%	3 x 3cm	5 x 6cm	10
Cyclamen	Outdoor	Plant	Tap Water	16	33	-52%	3 x 3cm	6 x 3.5cm	8
Cyclamen	Outdoor	Plant	Magnetic	16	50	+52%	3 x 3cm	6 x 3.5cm	10
Orchid	Indoor	Plant	Tap Water	9	12	-25%	5 x 4cm	16 x 8cm	8
Orchid	Indoor	Plant	Magnetic	9	15	+25%	5 x 4.5cm	16 x 8cm	10
Aloe Vera	Indoor	Plant	Tap Water	10	N/A	N/A	N/A	28 x 2.5cm	10
Aloe Vera	Indoor	Plant	Magnetic	10	N/A	N/A	N/A	30 x 2.5cm	10
Peace Lily	Indoor	Plant	Tap Water	16	6	-17%	9 x 4cm	30 x 10cm	10
Peace Lily	Indoor	Plant	Magnetic	16	7	+17%	9 x 4cm	30 x 10cm	10
Streptocarpus	Indoor	Plant	Tap Water	16	6	-33%	5 x 5cm	22 x 10cm	10
Streptocarpus	Indoor	Plant	Magnetic	16	8	+33%	5 x 5cm	23 x 10cm	10
Saintpaulia	Indoor	Plant	Tap Water	7	3	-33%	3 x 3cm	5 x 4cm	8
Saintpaulia	Indoor	Plant	Magnetic	7	4	+33%	3.5 x 3cm	5.5 x 5cm	9
Kalanchoe	Indoor	Plant	Tap Water	14	25	-12%	1 x 1cm	7 x 5cm	10
Kalanchoe	Indoor	Plant	Magnetic	14	28	+12%	1 x 1cm	7 x 5cm	10
Sweet Pea Royal Family Mixed	Outdoor	Seed	Tap Water	27	N/A	N/A	N/A	2 x 2cm	10
Sweet Pea Royal Family Mixed	Outdoor	Seed	Magnetic	27	N/A	N/A	N/A	2 x 2cm	10
Sweet Pea Mammoth Mixed	Outdoor	Seed	Tap Water	27	N/A	N/A	N/A	2 x 2cm	10
Sweet Pea Mammoth Mixed	Outdoor	Seed	Magnetic	27	N/A	N/A	N/A	2 x 2cm	10
Viola Sorbet Pink Wing	Outdoor	Seed	Tap Water	27	N/A	N/A	N/A	3 x 2cm	10
Viola Sorbet Pink Wing	Outdoor	Seed	Magnetic	27	N/A	N/A	N/A	3 x 2cm	10
Viola Sorbet Carmine Rose	Outdoor	Seed	Tap Water	27	N/A	N/A	N/A	3 x 2cm	10
Viola Sorbet Carmine Rose	Outdoor	Seed	Magnetic	27	N/A	N/A	N/A	3 x 2cm	10
Pansy Inspire Yellow with Blotch	Outdoor	Seed	Tap Water	27	N/A	N/A	N/A	5 x 2cm	10
Pansy Inspire Yellow with Blotch	Outdoor	Seed	Magnetic	27	N/A	N/A	N/A	5 x 2cm	10
Pansy Inspire Red with Blotch	Outdoor	Seed	Tap Water	27	N/A	N/A	N/A	5 x 2cm	10
Pansy Inspire Red with Blotch	Outdoor	Seed	Magnetic	27	N/A	N/A	N/A	5 x 2cm	10
Coleus Wizard Coral Sunrise	Outdoor	Seed	Tap Water	27	N/A	N/A	N/A	1 x 1cm	10
Coleus Wizard Coral Sunrise	Outdoor	Seed	Magnetic	27	N/A	N/A	N/A	1 x 1cm	10
Begonia Nonstop Orange	Outdoor	Seed	Tap Water	25	N/A	N/A	N/A	0.5 x 0.5cm	10
Begonia Nonstop Orange	Outdoor	Seed	Magnetic	26	N/A	N/A	N/A	0.5 x 0.5cm	10
Begonia Nonstop Yellow with Red	Outdoor	Seed	Tap Water	25	N/A	N/A	N/A	0.5 x 0.5cm	10
Begonia Nonstop Yellow with Red	Outdoor	Seed	Magnetic	26	N/A	N/A	N/A	0.5 x 0.5cm	10
Lettuce Green Salad Bowl	Outdoor	Seed	Tap Water	27	N/A	N/A	N/A	13 x 6cm	10
Lettuce Green Salad Bowl	Outdoor	Seed	Magnetic	27	N/A	N/A	N/A	14 x 8cm	10
Lettuce Red Salad Bowl	Outdoor	Seed	Tap Water	27	N/A	N/A	N/A	11 x 6cm	10
Lettuce Red Salad Bowl	Outdoor	Seed	Magnetic	27	N/A	N/A	N/A	12 x 9cm	10
Viola Vibrante Mix	Outdoor	Plug	Tap Water	8	15	-80%	4 x 4cm	3 x 2cm	10
Viola Vibrante Mix	Outdoor	Plug	Magnetic	8	27	+80%	4 x 4cm	3 x 2cm	10

BEST PERFORMANCE	
INDOOR	
Plant Name	Description
Streptocarpus	A flower increase of 33% and foliage a little larger, tending to flower for a longer period of time. Flowers are also slightly more vibrant in colour.
OUTDOOR	
Plant Name	Description
Viola	A massive flower increase of 433% after only four weeks.

## WRITTEN REPORT

I trialled Plantsurge over 24 weeks, using various indoor and outdoor plants in the earliest development stages that I could find, sourced from various suppliers. All indoor plants were kept in two separate houses in the appropriate positions (kitchen, bathroom etc.) to replicate that of a typical customer buying plants from a garden centre. All outdoor plants were kept in an unheated glasshouse to avoid unwanted rain water from accessing the pots. At least six, but up to 14 of each variety were trialled and split in two groups; those using Plantsurge water and those using standard tap water. East Anglia typically has hard water, so this was used for the trial.

Strict data was recorded of the plants' development, including watering which was monitored every day to ensure the plants were kept hydrated at all times.

I can conclude that there has been a significant improvement in flower counts, with some varieties tending to flower for longer periods of time. There is little difference in the germination stage, but between the stage of seedling and mature potted plant, there are noticeable variances which include larger foliage, speed of flowering, larger flowers, flower count and general health of the plants, which are typically all better when using Plantsurge.

Naturally, some plants died back before the trial was concluded, but a few held on and continued to perform. I believe that between mid-December and the end of May, this provided sufficient time to cover the main growth developments of all plants on trial. I have listed the main points below that saw significant differences throughout the trial.

- **Pansy plants** tested outdoors show an 80% increase in flowers when using Plantsurge.
- **Viola plants** tested outdoors show a 433% increase in flowers when using Plantsurge.
- **Cyclamen plants** tested outdoors show a 52% increase in flowers as well as maintaining high colour retention in the petals when using Plantsurge.
- **Cyclamen plants** tested indoors show a 25% increase in flowers as well as maintaining high colour retention in the petals when using Plantsurge.
- **Orchid plants** tested indoors show a 25% increase in flowers, as well as a very slight increase in flower size when using Plantsurge.
- **Aloe Vera plants** tested indoors show a slight increase in the length of the leaves when using Plantsurge.
- **Peace Lily plants** tested indoors show a 17% increase in flowers when using Plantsurge.
- **Streptocarpus plants** tested indoors show a 33% increase in flowers and a very slight increase in foliage size when using Plantsurge. They also flowered for around one week longer than usual.
- **Saintpaulia plants** tested indoors show a 33% increase in flowers, with larger flowers and foliage and producing healthier looking plants when using Plantsurge.
- **Kalanchoe plants** tested indoors show a 12% increase in flowers and the petals retained their colour for a few days longer when using Plantsurge, whereas those not using Plantsurge faded very quickly.
- **Sweet Pea seeds** sown outdoors show very little difference during germination.
- **Viola seeds** sown outdoors show very little difference during germination.
- **Pansy seeds** sown outdoors show very little difference during germination.
- **Coleus seeds** sown outdoors show very little difference during germination.
- **Begonia seeds** sown outdoors in a heated propagator show very little difference during germination.
- **Lettuce seeds** sown outdoors show a slight increase in the size of the foliage from week 5 when using Plantsurge.

All plants selected for this trial were chosen as they met the below criteria:

1. What plants would a typical customer purchase for growing indoors and outdoors over winter?
2. Are the plants able to put on a substantial amount of growth during the selected trial dates?
3. Is there a significant difference in the colour of the flowers or foliage compared to others on trial?
4. Are the plants already flowering or will they flower over the course of the trial?
5. Do any of the plants produce succulent, sappy leaves or require a different type of growing medium?

Below is a selection of comparison photos to demonstrate the claims made in my report.

