



## Great Land Plus® (GLP) Compatibility with Roundup Ready® Herbicide with Plant Shield®

– Compatibility summary based on MALDIID Final Report –  
B-C95-P01B01 (04 September 2025)

### EXECUTIVE SUMMARY

**Short-term (2–6 hours):** GLP shows partial compatibility in the tank with Roundup Ready granules; total viable counts retain approximately 64–68% of initial levels.

**Overnight (24 hours):** Total viable counts drop to ~18% of the starting level, driven by marked declines in Lactobacillus groups. The mix should be sprayed within the same day and preferably within 2–6 hours of mixing.

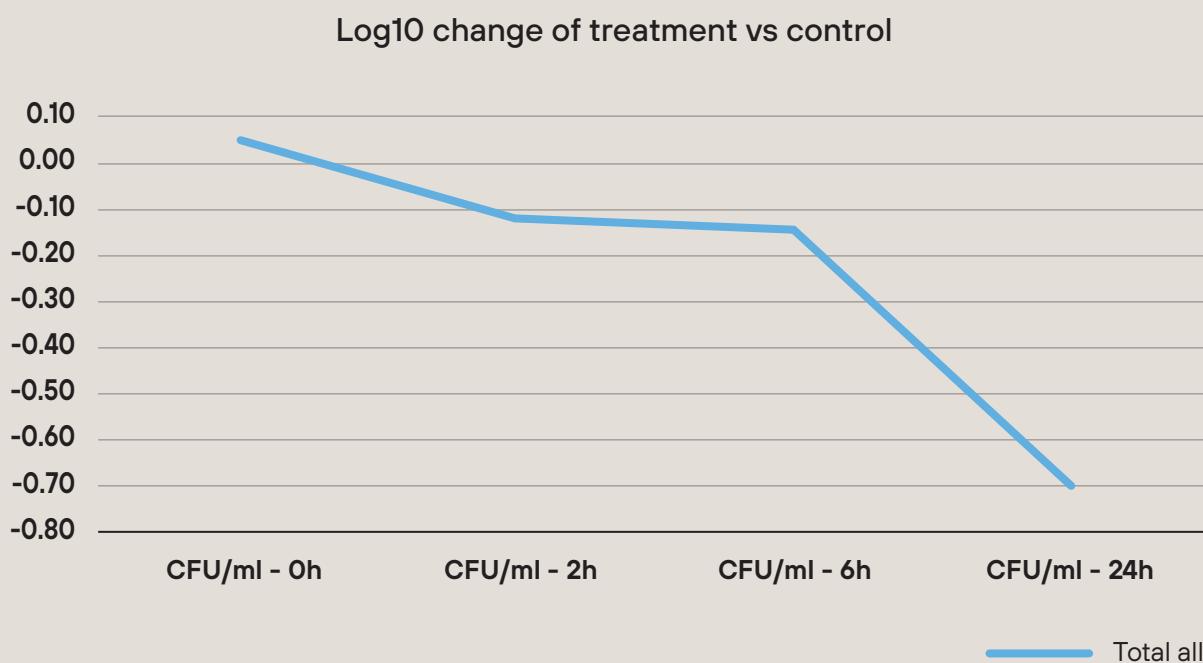
### WHAT WAS TESTED

**Sample 1:** Roundup Ready with PlantShield granules (1500 g/ha) + GLP (batch C25.024) at 4 L/ha; counts at 0 h, 2 h, 6 h, and 24 h.

**Sample 2:** GLP at 4 L/ha baseline counts at 0 h (no time-course).

### OVERALL VIABILITY TREND

Total viable counts ("Total all") over time in the combined mix:



## DETAILED RESULTS

Colony-forming units (CFU/mL) and retention relative to 0 h for Roundup Ready + GLP mix:

Microbe group	Control 0h (CFU/mL)	0 h (CFU/mL)	2 h (CFU/mL)	6 h (CFU/mL)	24 h (CFU/mL)	Retention @2 h (%)	Retention @24 h (%)
Candida	1.00E+05	2.00e+05	3.00e+05	9.00e+05	2.20e+06	150.0	1100.0
Acetobacter	3.00E+05	1.00e+05	2.00e+05	8.00e+04	5.00e+05	200.0	500.0
L. buchneri	1.70E+07	1.60e+07	2.00e+07	2.00e+07	1.00e+06	125.0	6.2
L. casei	3.60E+07	5.00e+07	2.20e+07	1.50e+07	8.00e+06	44.0	16.0
L. rapi/paracasei	8.00E+06	2.00e+06	4.00e+06	8.00e+06	5.00e+05	200.0	25.0
Total Lactobacillus	6.10E+07	6.80e+07	4.60e+07	4.30e+07	9.50e+06	67.6	14.0
Total all	6.14E+07	6.83e+07	4.65e+07	4.40e+07	1.22e+07	68.1	17.9

## INTERPRETATION

- » Compatible for short tank times: If mixed and sprayed within a few hours (2–6 h), most viable counts remain (≈64–68% retained), indicating partial compatibility.
- » Not stable if held overnight: By 24 h, overall viable counts drop ~82%, primarily due to declines in Lactobacillus (buchneri, casei, paracasei). Avoid holding the mix overnight.
- » Microbial balance shifts: Yeasts (Candida) and Acetobacter increase, while Lactobacillus groups decrease. If outcomes rely on Lactobacillus activity, time-to-spray is critical.

## RECOMMENDATIONS

1. **Spray window:** Mix and spray within 2–6 hours; do not hold overnight.
2. **Order of addition:** Add GLP last into the tank after water, conditioners, and herbicide; maintain gentle agitation and avoid foaming.
3. **Water quality:** Use clean, low-chlorine water and avoid extreme pH below 4 or high salinity.
4. **Operational approach:** Make smaller tanks to minimize hold time if logistics require extended spraying.
5. **Label compliance:** Follow Roundup Ready and GLP labels and Terragen guidance.

Reference: MALDIID Pty Ltd, Final Report – B-C95-P01B01, dated 04 September 2025.