CitroBio, Inc.

Detonation (RGA) Improvement of Long Leaf Seedling Development

N1 **N2** **Control**

RGA was applied as a soil amendment prior to seeding at two different rates. Longleaf seedlings showed much better vigor, more healthy green shoots and denser root systems compared to non-treated control. Also, the microbial product improved mycorrhizae colonization of roots, which will improve survival and growth of seedlings after transplanting.

As can be seen in the table below, both treatments showed improvements in seedling root collar diameter and biomass characteristics, as well as seedling root characteristics.

Sets from each grouping were sampled and sent to Auburn University for detailed root and shoot evaluation.

Table 1: Seedling Root Collar Diameter & Biomass Characteristics

Treatment	Diameter (mm)	Shoot Mass(g)	Root Mass (g)
N1	6.02	2.87	0.445
N2	6.19	2.89	0.59
Control	5.88	2.54	0.455

Table 2: Seedling Root Characteristics

Treatment	1	2	3	4	5	6	Tips	Forks	Crook
N1	275.8	25.1	79.1	0.09	264.7	1.9	214.8	1859.4	357.1
N2	260.2	25.7	80.8	0.1	246	2.1	202	1780.9	324.5
Control	230.9	20.8	65.3	0.09	225.1	1.5	204.8	1376.6	243.7

1= Total Root Length (cm); 2= Projected Surface Area(cm^2); 3= Surface Area (cm^2); 4= Avg. Root diameter (cm); 5= Total Root Length Per Volume (cm/m3); 6=Total Root Volume (cm^3)