



Roots

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When constructing a building, two of the first things you must think about are site preparation and the structure's foundation. The site needs to be ready to support a firm foundation; and the foundation needs to be big enough and deep enough to support the building in all conditions.

Likewise, in a plant, we want soil (the site) that's fit to grow a root system (the foundation) which is, in turn, big enough to supply the water and nutritional needs of the plant, and to anchor and support the plant in all conditions.

Site preparation was a real challenge for many of you this year. An extremely wet season left field after field with major compaction issues. We've even seen several cases where the ground is so compacted the roots are actually running horizontally about 3 inches deep rather than going down in the ground!

Plant roots and soil microbes are much like us – they like to have some air to breathe, and a decent place to live. This year, we have seen very large root systems on farms that managed to achieve good soil tilth and good soil biology.

In some side-by-side comparisons, we've found larger root systems where AgriEnergy's biological products – such as **SP-1™**, **Residue™ WS**, and **Myco Seed Treat™** – were used. Here are a few examples:



*Organic soybeans. SE Indiana.
Grower used **Myco Seed Treat™**,
plus 2 gal/acre **SP-1™** in his row
support.*



*Organic corn. Southern Georgia.
Grower used 12 gal/acre **SP-1™** in his
row support.*

*Commercial corn. SE Indiana. Corn
on left had 2 gal/acre **SP-1™** added to
the 2x2 row support.*



*Seed corn. Southern Michigan. Corn
on left had 1 gal/a **SP-1™** added to
the row support mix.*



Besides improved nutrient up-take and a sturdy anchor, a larger root system can also mean:

- Higher yields
- More drought tolerance
- Improved plant health
- More crop residue to return to the soil to become organic matter
- An improved rhizosphere which helps build more carbon in the soil

Want to build for bigger and more consistent yields year-in and year-out?

- **Prepare your site.** Do whatever it takes to break up compaction: deep tillage, cover crops, soil conditioners, etc.
- **Build a strong foundation with large, healthy roots.** Biological products and a biological system will keep the soil “open”, improve soil tilth, build water stable soil aggregates, allow water and air to move freely in the soil, and encourage the large root systems.

Contact your AgriEnergy Resources representative today to get a bid on your “root” construction project.
