

SOIL QUALITY -- A CHALLENGE TO CONQUER

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There is probably nothing more critical to quality and high yields in vegetable production than soil quality.

There is probably more mystery in what contributes to soil quality and its creation and maintenance than any other agronomic area I work with.

With over thirty years of farming experience with a variety of crops, one would think some consistent learning and processes would prevail. But with each season, I have more questions than answers.

With this presentation, I hope to discuss the many areas that I see as relevant to soil quality from our operation's viewpoint and hope that those in attendance can give me some guidance from their experience.

Critical boundaries to a quality soil environment on our farm include:

- soil variability
- top soil limitations
- soil density
- soil structure
- extremes of mother nature
- biological activity

Some of these examples we have little control over except maybe in our choice of crops.

Probably the boundaries to good quality are more influenced by the effects of those things we do in the name of management, or maybe in my case, "mismanagement". These include:

- organic matter levels
- compaction
- fitting choices and machinery
- deep tillage
- cover crops
- legumes
- hard pans
- irrigation and water intake rates
- row widths

We are constantly challenged to understand and improve on our soil quality. We need to put forth the same effort and time that we have spent on nutrient management if we are to reap the land's promise. On the horizon, I can see the value of precision site specific management of soil quality. I am also excited about animal and poultry manure compost and the ability to measure and quantify biological activity in our soils.