When I first started farming I could not have imagined how productive my soil could be. Cover crops have been the key to soil building, disease and weed control

Growing Harmony Farm is a 74 member CSA diversified farm utilizing just 2 acres total. 1.6 acres in production with a five year rotation.

- Instead of increasing space I have been able to increase fertility and productivity within that space.
- For example when I first started I might harvest 100 lbs of carrots in a 100 foot x 3 foot bed. A couple of years ago I averaged 225 lbs/bed. When conditions are just right it is not unusual for me to harvest 300 lbs in a bed.

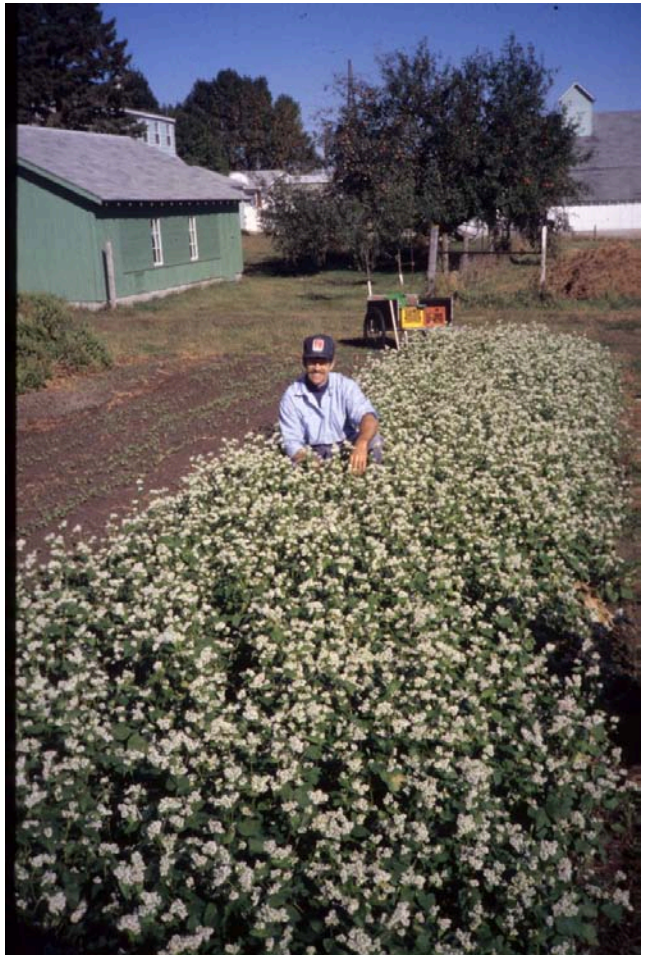
Cover cropping:

- One of my best tools for weed control is the use of cover crops. Not only does it compete against weeds it adds a tremendous amount of organic matter and nutrients to the soil.

When a crop comes out of production a cover crop immediately goes in.

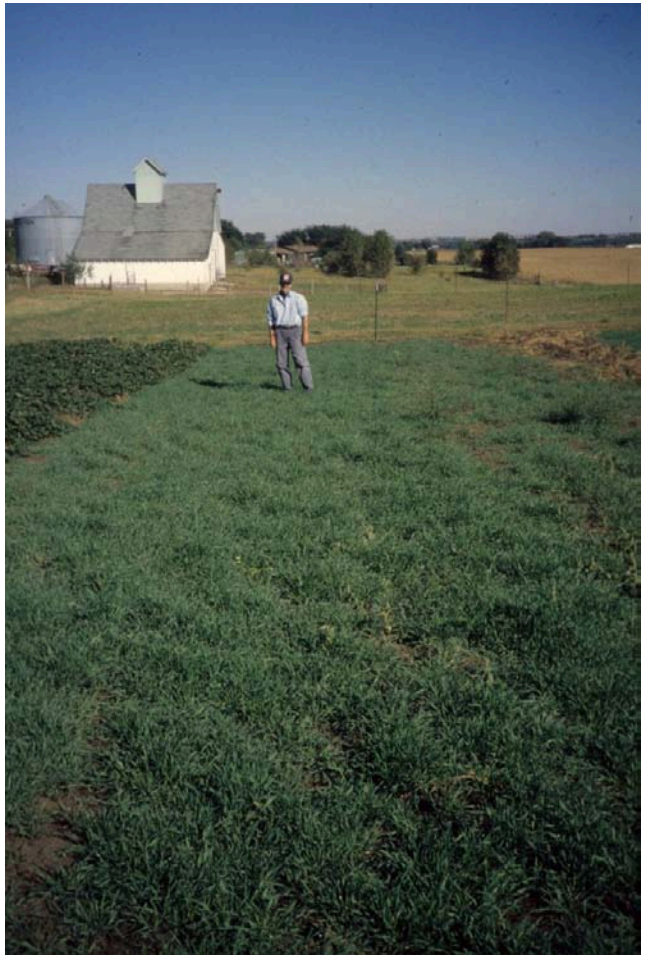
- My soil is 2-4% higher in Organic Matter compared to my parents corn and soybean ground. This is due largely to mulching with wheat straw (purchased) leaves (from town) and the cover crops.
- For every % of O. M. in the soil it retains 10,000 gallons of water/acre! In dry years that is crucial to healthy vegetable plants.

I use: buckwheat



- Buckwheat gets establised very quick. I will often mix it with winter rye grain and hairy vetch. Just as the buckwheat wants to flower I cut it back and the rye and vetch get established.

Winter rye



- Rye gets established well and competes very well with weeds. It has an aleopathic affect on small weeded weeds. I do not grow rye right before planting of carrots since I need a fine seed bed and do not want seed germination to be inhibited.

Sorghum/sudangrass (don’t let it get this big!)

It should look like this:

- Sorghum/sudangrass is a great cover crop for planting in the heat of the summer (late June/early July)

Also canola mustards

Canola, mustards and sorghum/sudangrass are great tools to minimize damage due to root-knot nematodes

These are what my carrots are supposed to look like!

Nitrogen fixers

- I plant hairy vetch with my rye and buckwheat
- I also frost seed red clover into my rye where my rotation will be fallow for that year. I keep mowing the rye and by July there usually is a good stand of clover
- This year I will be experimenting with chickling vetch for early spring nitogen fixing in certain parts of the garden.

Feeding the soil= healthy plants and healthy people