unlock the SECRETS IN THE SOIL

Biodiversity increases the success of most agricultural systems.

Biodiversity helps to prevent disease and pest problems associated with monocultures. Using cover crops and increasing diversity within crop rotations improves soil health and soil function, reduces costs, and increases profitability. Diversity above ground improves diversity below ground, which helps create healthy productive soils.

Cover Crops

Cover crops can be an integral part of a cropping system. Cover crops can be managed to improve soil health, as they help to develop an environment that sustains and nourishes plants, soil microbes and beneficial insects.

Cover crops are typically planted in late summer or fall around harvest and before spring planting of the following year's crops. Examples of cover crops include rye, wheat, oats, clovers and other legumes, turnips, radishes, and triticale. Planting several cover crop species together in a mixture can increase their impact on soil health. Each cover crop provides its own set of benefits, so it's important to choose the right cover crop mixture to meet management goals.

USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

September 2012

Unlock the SECRETS IN THE SOIL

Cover Crop Benefits

Restoring Soil Health – Cover crops help increase organic matter in the soil and improve overall soil health by adding living roots to the soil during more months of the year. Cover crops can improve water infiltration into the soil. Deep-rooted crops like forage radishes create natural water passages. Legume cover crops serve as natural fertilizers while grasses scavenge nutrients that are often lost after harvest or during winter.

Natural Resource Protection – Along with crop residue above ground, cover crops protect the soil against erosive heavy rains and strong winds. Cover crops trap excess nitrogen, keeping it from leaching into groundwater or running off into surface water – releasing it later to feed growing crops.

Livestock Feed – Cover crops can provide livestock producers with additional grazing or haying opportunities.

Wildlife Habitat – Cover crops provide winter food and cover for birds and other wildlife. During the growing season, they can provide food for pollinators.

Soil Health Management Systems

Implementing Soil Health Management Systems can lead to increased organic matter, more soil organisms, reduced soil compaction and improved nutrient storage and cycling. As an added bonus, fully functioning, healthy soils absorb and retain more water, making them less susceptible to runoff and erosion. This means more water will be available for crops when they need it. Soil Health Management Systems allow farmers to enjoy profits because they spend less on fuel and energy while benefiting from the higher crop yields resulting from improved soil conditions.

Contact your local NRCS office to learn more about Soil Health Management Systems and the technical and financial assistance available to help "Unlock the Secrets in the Soil."

For Additional Information, visit:

USDA NRCS Soil Health Site- http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/soils/health/

http://www.youtube.com/user/usdanrcsentsc

Or Contact Pennsylvania USDA NRCS at (717)237-2100, or www.pa.nrcs.usda.gov

discover THE COVER

USDA is an equal opportunity provider and employer.