Soil Health Management Plan

The Million Acre Challenge Soil Health Management Plan (SHMP) is designed to help producers take a critical look at their farm management systems through a soil health lens, identify areas where improvements can be made, and create a blueprint for action.

The goal of the plan is to help producers harness the power of a healthy soil ecosystem to grow healthy crops and animals, regulate pest and disease pressure, improve water quality on and off the farm, reduce the risks associated with extreme weather, and help capture and store carbon from the atmosphere.

Several other soil health management plans exist, including the Conservation Activity Plan (CAP) 116 SHMP that is used by NRCS and requires assistance from a certified Technical Service Provider in order to qualify for funds to implement management activities. The Million Acre Challenge Soil Health Management Plan, which draws heavily from the NRCS plan, and from Cornell's SHMP-- designed to build upon their Comprehensive Assessment of Soil Health (CASH) Framework -- is intended to help farmers create their own plan with, or without additional technical assistance.

If you have any questions, or feel that you need assistance completing your Soil Health Management Plan, please contact Lisa Garfield, lisa@futureharvest.org, or contact your local NRCS agent, or a Technical Service Provider certified to conduct CAP116.

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Sections:

1. Farm Information
2. Management practices
3. Soil properties and constraints
4. Identify goals
5. Assess options appropriate for management system
6. Create plan of action
7. Investments and Returns

Objectives:

1. Identify soil health constraints and goals via soil tests and qualitative assessments, and review of current management practices
2. Identify management practices available/appropriate to the particular production system to address soil health constraints and goals
3. Create action plan to incorporate management practices, over multi-year period
4. Conduct yearly re-assessment to monitor soil health, progress, and management plan
5. Assess financial investment and impact of soil health management on farm profitability

Methods

1.
    a. Conduct qualitative, in-field soil health assessments and quantitative lab based tests that include (at a minimum) Nutrients, pH, Organic Matter, Aggregate Stability and Active Carbon to gain insight into soil constraints and areas for improvement.
    b. Report field management practices, including: equipment used, fertilizers and amendments, crop rotations, and cover crops.
2. Use the *Practices:Principles:Problem Solving Table* (Appendix A), and the *Questions to Consider* table to identify alternative management practices that could help address the soil health constraints and goals.
3. Create a plan of action, using the template provided, or in the format of your choice, that includes:
    - How you will address each soil health constraint and/or goal identified above
    - Management practices that you will adopt or adapt
    - Timeline for implementing soil health activities
4.
    a. Revisit your Soil Health Management Plan quarterly (Spring, Summer, Fall, Winter) to note changes in your plan, based on weather, or other unforeseen circumstances.
    b. Conduct Soil Health Management Plan review yearly to record changes in soil health, and reevaluate the methods and practices that may help you realize your soil health goals.
5. Record financial investment in soil health management activities (optional, but suggested).

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1. Farm Information

Farm Owner/Manager Name_____

Farm Name_____

Address_____
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Email_____ Phone_____

Total Acres_____Acres in Production_____

Farm Production Type (check all that apply)

Livestock (please specify)
Annual Vegetables
Grain/Row Crop
Orchard/Vineyard
Silvoculture

2. Management System

What crops, livestock, or agricultural products are produced on your farm?

Describe your current crop and/or livestock rotation pattern, including size of management units (field, plot, bed, paddock), duration of rotation, crops or species planted (incl. cover crops).
[Eg. 4 year rotation of Solanaceae-Cucurbits-Brassicae-Mixed Species Cover Crop. Some fields include other vegetable species, as well, and may be double or triple cropped. Each field gets a full year of cover crop every 4th]

List the tools and equipment most commonly used for field management activities (tillage, weed-management, harvest, etc.) and the frequency used per year. (e.g. Rototiller, 6” depth- 2 times per year).

List soil amendments used (e.g. compost, manure, gypsum, lime, etc.) with amount, timing, method and frequency of application.

List fertilizer/nutrients used, and rate, timing, and method of applications. (Attach Nutrient Management Plan, if available)

List pesticide(s) used, with frequency and method of application.

Indicate cover crops used, including species, planting and termination dates, and methods used to establish and terminate.

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Applying Soil Health Principles

Minimize physical, chemical and biological disturbance
Questions to consider:

- Is the equipment you are using the least disruptive available, in terms of weight, depth, and disturbance type (tilling, plowing, etc.) to achieve the same function?
- Are there practices that you could adopt that would minimize or eliminate soil disturbing activities?
- Do the amendments or products you rely on for fertility, nutrient management, pest, disease and/or weed control disturb or damage soil biology, and if so, are there alternatives, or methods to limit use of those substances?

Maximize living roots
Questions to consider:

- Are there opportunities to minimize the period of time between cash crops, where the soil is left bare, by promptly replanting the next cash crop or planting a cover crop?
- Are you getting your cover crop in as early as possible, and terminating as late as possible?
- Are there areas where it may be possible to keep a living cover in pathways (e.g. grass, clover)?
- Are there bare spots, or areas with sparse vegetation in your pasture or forage fields? If so, how might you fill these spots in?
- Are there perennial crops that would fit well into your production system, or provide other benefits, such as wildlife habitat, wind break, or erosion control?

Maintain soil armor
Questions to consider:

- What materials (leaves, woodchips, straw) are available in the vicinity of your farm that could be used as ground cover in pathways, or beneath crops?
- Is crop residue being left on the surface of your fields, after harvest, and if so, is the percentage of cover meeting target goals for that particular crop (30% minimum-- up to 40%for soy, 60% for corn)

Maximize diversity
Questions to consider:

- Are there additional crop species that you could add to your planned rotation, in order to increase above and/or below ground biodiversity?
- Are there additional benefits that could be achieved, or constraints that could be addressed, by using a cover crop mixture vs. a single species?
- Are there areas on your farm landscape that could provide habitat for pollinators and/or wildlife?

Integrate Livestock (where appropriate)
Questions to consider:

- If your farm raises both crops and livestock, separately, how might you integrate the systems, for mutual benefit (while employing GAP principles for food safety)?
- Are there neighboring farms raising livestock that may need additional forage opportunities that you could offer?

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3. Soil Properties and Constraints

A. In-field Assessments and Observations:

List the in-field qualitative assessment(s) completed, and share results (e.g. Jar/texture test; worm count; MD Soil Health Card, Pasture Condition Score Card etc.).

Share any observations you have made that may be attributed to soil health/function. *E.g. After periods of heavy rain, I can see channels through field A where water is causing erosion; or, On field B, there are areas of poor pasture growth where plants appear stunted and slightly yellow.*

B. Soil Tests

Soil tests that include soil health indicators beyond nutrient levels, such as organic matter, active carbon and aggregate stability, are recommended.

Soil Lab used_____

Indicators included: list all (e.g. Nutrients [N, P, K,), Organic Matter, CEC, etc.)

Based on your most recent soil tests, in-field assessments and/or observations, what soil health problems or constraints are you experiencing, or where is there room for improvement on your farm or property?

1. Nutrient deficiency
2. Pest/disease pressure
3. Soil Acidity
4. Soil Alkalinity
5. Low Organic Matter
6. Compaction (stunted root growth, poor infiltration/standing water)
7. Poor water holding capacity (soil dries out quickly)
8. Soil Crusting
9. Poor Aggregate Stability
10. Low Microbial Activity/Biomass
11. Other, please describe

4. Identify Goals

A. Short term (1 year)

B. Long term (3+ years):

5. Assessing Options

Consult the *Principles:Practices:Problem Solving Table* (Appendix B) to view management practices through the lens of NRCS's five Soil Health Principles to determine what practices might make sense for your operation, and your particular soil health goals.

6. Plan of Action and Timeline

Describe how you will address soil health constraints and/or make improvements, to meet your short and long term goals, then use the calendar table (Appendix B) to outline the soil health activities in your plan, by month. Add notes throughout the year to describe challenges, or changes to the plan.

7. Investments and Returns

Many factors can influence farm profitability on any given year, making it difficult to assess the economic impact of an individual practice on whole farm income. While difficult, it is very important to track investments made towards soil health and resulting benefits or losses in order to create a clear picture of what works and what doesn't; where additional technical support may be needed, and where outside incentives or funding sources might be utilized to ease the transition to a new practice.

Use this space to record observations and anecdotes related to the benefits and/or losses* associated with soil health management techniques, and when possible, estimate the economic impact.
E.g. After a 6" rain event that resulted in flooding and crop loss for other growers at my market, my fields drained well and I was able to continue bringing a consistent amount of

produce to market. Drainage has greatly improved after planting a tillage radish cover crop last winter, and I'm pretty sure that I would have lost crops, as others did, resulting in at least 2 weeks of reduced income at market, equaling approx. $3500.
**If you are interested in doing a more detailed budget analysis, contact Lisa Garfield, lisa@futureharvest.org for additional resources.*

Appendix A: Principles, Practices and Problem Solving

Problem	Practice	Principle(s)
Nutrient Levels/Chemical	Test soil annually, in fall, to monitor nutrient levels and pH, and plan for appropriate soil amendments.	See how managing chemical attributes in the soil relate to the 5 principles of soil health.
Nitrogen	Nutrient Management ● Apply precision and/or 4R principles so that N is applied when crop needs it (e.g. split application) Cover Crop/Crop Rotation ● Plant legume, or mixture that includes legume, prior to cash crop. Mulch ● Keep the soil covered with mulch or crop residue to protect soil microorganisms that mineralize N for crop uptake.	**Minimize chemical disturbance** and protect water quality by using non-synthetic fertilizers (whenever possible), and applying at optimal time for plant uptake **Keep living roots** in the ground between cash crops to scavenge excess nutrients and provide N for next crop **Soil Armor** to protect microorganisms that aid in nutrient cycling, and reduce volatilization **Maximize diversity** by growing multi-species cover crops mix that will supply N to cash crop, and promote healthy microbial populations that aid in N mineralization **Integrate Livestock** for an N-rich source of organic matter
High Phosphorus	Nutrient Management ● Stop adding manure or compost ● Use fertilizers with low- or no- P, or limit to low starter P amendments ● Apply P at or below crop removal rate Cover Crop/Crop Rotation ● Grow cover crop with high P scavenging potential, and harvest from field for use elsewhere ● Grow cash crop with high P scavenging potential, for removal through harvest Prescribed Grazing ● If feeding additional rations, consider low P feed options ● Use phytase for non-ruminant livestock	**Minimize chemical disturbance** and protect water quality by limiting phosphorus use on land that has sufficient or excessive levels **Keep Living Roots** in the soil to cycle nutrients more effectively, and reduce nutrient runoff **Maximize Diversity** by using cover crops and crop rotations that introduce crop species with high P scavenging potential
Low Phosphorus	Nutrient Management ● Follow soil test recommendations for P amendments ● Keep pH in optimal range (6.2-6.5) to access fixed P Cover Crop ● Grow cover crop to scavenge and recycle soil P ● Grow cover crops that host Mycorrhizal fungi Compost/Mulch ● Apply high quality compost as a source of soil nutrients and to promote mycorrhizal population ● Use mulch to protect and promote Mycorrhizal population	**Keep Living Roots** in the soil to cycle nutrients more effectively, and reduce nutrient runoff (and save $!) **Maximize Diversity** of crops in rotation, cover crops, and by adding organic amendments to add nutrients **Minimize Disturbance** to reduce soil erosion and nutrient loss **Soil Armor** helps protect soil microorganisms that aid in nutrient cycling **Integrate Livestock** to add organic matter, microbial diversity and nutrients

Low Potassium	Nutrient Management ● Follow soil test recommendation for K amendments, using wood ash, manure, compost, or fertilizer ● Apply 'maintenance' K each year, per soil test recommendations Cover crops ● Grow cover crops to scavenge and recycle soil K	**Keep Living Roots** in the soil to cycle nutrients more effectively. **Maximize Diversity** of crops in rotation, with cover crops, and by adding organic amendments to add nutrients **Minimize Disturbance** to reduce soil erosion and nutrient loss **Soil Armor** helps protect soil microorganisms that aid in nutrient cycling **Integrate Livestock** for nutrient rich manure as an organic amendment
Low Minor Elements	Nutrient Management ● Add chelated micros according to soil test recommendations ● Maintain optimal soil pH (6.5 for most crops) Cover Crops ● Use cover crops to scavenge and recycle minor elements, increase soil organic matter, and promote mycorrhizal populations Compost ● Use compost to increase organic matter	**Keep Living Roots** in the soil with cover crops to cycle nutrients more effectively **Maximize Diversity** of crop rotation, cover crops, and compost to cycle nutrients more effectively and promote microbial diversity **Soil Armor** helps protect soil microorganisms that aid in nutrient cycling
High Minor Elements	Nutrient Management ● Raise pH to 6.2-6.5 (for all high micros except Molybdenum) ● Do not use fertilizers with micronutrients ● Improve soil calcium levels ● Monitor irrigation/Improve drainage	**Minimize Chemical Disturbance** by correcting nutrient and pH imbalances **Keep Living Roots** in the soil by using cover crops to cycle nutrients more effectively, reducing the need for nutrient amendments
Low pH- acidity	● Add lime or wood ash per soil test recommendations ● Add calcium sulfate (gypsum) in addition to lime, if aluminum is high ● Use less ammonium or urea ● Increase organic matter to raise buffering capacity	**Minimize Chemical Disturbance** by maintaining optimal pH for crops to avoid hindering uptake of micronutrients that may cause toxicity **Keep Living Roots** in the soil between cash crops using cover crops that build soil organic matter
High pH- alkalinity	● Stop adding lime or wood ash ● Add elemental sulfur per soil test recommendations	**Minimize Chemical Disturbance** by maintaining optimal pH for crops to avoid nutrient deficiencies, yield loss, and degradation of soil health. **Keep Living Roots** in the soil between cash crops using cover crops that build organic matter

Pest/Disease Pressure	Scout for evidence of pest or disease damage throughout the growing season, and consider the least harmful alternative when deciding on a course of action, including cultural practices and biological controls.	See how pest and disease management recommendations relate to the 5 soil health principles.
Fungal Pathogen	Crop Rotation ● Diversify crop rotation by growing/adding different species in succession ● Choose crop varieties with resistance to pathogen Cover Crops ● Grow mustard or other species that provide biofumigant properties, solely or as part of a multi-species cover crop mix. ● Grow multi-species cover crop mix to increase above and below ground biodiversity Conservation Tillage ● Practice no-till or a reduced tillage strategy to protect soil structure and beneficial soil organism habitat Mulch ● Use organic materials, or leave sufficient crop residue to cover the soil and reduce soil splash that can lead to spread of pathogens IPM ● Use least harmful alternative, and appropriate timing and method when treating for soil pathogens	**Minimize Physical Disturbance** of beneficial soil microorganism habitat and soil structure by using reduced till or no-till. **Minimize Chemical Disturbance** by limiting, or eliminating the use of chemicals that harm beneficial soil organisms **Maximize Diversity** of crop rotation, and/or cover crops to break pathogen host cycle and promote beneficial soil microorganisms **Keep Living Roots** in the soil to maintain healthy soil microorganism habitat, and plant:bacteria feedback loops. **Soil Armor** such as mulch or crop residue protects the population of beneficial soil microorganisms, and reduces spread of soil borne disease to crop leaves.
Bacterial Pathogen	Crop Rotation ● Diversify crop rotation by growing/adding different species in succession Cover Crops ● Grow multi-species cover crops to increase above and below ground biodiversity ● Grow cover crop species that act as host to beneficial soil organisms, and interrupt the host opportunity for pathogens Conservation Tillage ● Practice no-till or a reduced tillage strategy to protect soil structure and beneficial soil organism habitat Mulch ● Use organic materials, or leave sufficient crop residue to cover the soil and reduce soil splash that can lead to spread of pathogens IPM ● Use least harmful alternative, and appropriate timing	**Minimize Physical Disturbance** of beneficial soil microorganism habitat and soil structure by using reduced till or no-till. **Minimize Chemical Disturbance** by limiting, or eliminating the use of chemicals that harm beneficial soil organisms **Maximize Diversity** of crop rotation, and/or cover crops to break pathogen host cycle and promote beneficial soil microorganisms **Keep Living Roots** in the soil to maintain healthy soil microorganism habitat, and plant:bacteria feedback loops. **Soil Armor** such as mulch or crop residue protects the population of beneficial soil microorganisms, and reduces spread of soil borne disease to crop leaves.

	and method when treating for soil pathogens	
Pest Intensity/Population	Crop Rotation ● Diversify crop rotation to break pest cycle Cover Crops ● Grow mixed species cover crops to add above and below ground biodiversity, break pest cycle and attract beneficial predator species Conservation Tillage ● Use reduced or no-till to protect habitat of beneficial organisms that help keep pests in check IPM ● Use least harmful alternative, and appropriate timing and method when treating for soil pathogens Hedgerow ● Establish perennial hedgerows to provide habitat for beneficial predator species	**Minimize Disturbance** of soil by using reduced or no-till to protect habitat of soil organisms that feed on ground-dwelling pests or larvae, and by minimizing reliance on broad spectrum pesticides that disturb predator:prey balance. **Maximize Diversity** of crop rotation, and/or cover crops to break pest host cycle and promote beneficial soil organisms. **Keep Living Roots** in the soil to maintain healthy soil organism habitat **Soil armor** helps protect organism habitat and reduces plant stress that can attract pests
Physical/structure	While soil texture cannot be changed, other attributes, like pore space and organic matter content can be optimized to provide a good physical environment for plant roots and soil organisms. Monitor water infiltration rates, soil crusting, root penetration throughout the season to determine where interventions are needed.	See how soil physical/structure management recommendations relate to the 5 soil health principles.
Organic Matter	Cover Crops/Mulch ● Grow high biomass cover crops as green manure ● Use organic materials (straw, wood chips, leaves) beneath crops and in pathways ● Leave crop residue on the surface of the soil after harvest Conservation Tillage ● Reduce tillage or use No-Till practices, to reduce soil disturbance Compost ● Apply compost and biochar Prescribed Grazing ● Integrate livestock into cropping systems ● Use management intensive grazing system	**Minimize Disturbance** of the soil to protect soil organic matter from erosion and/or hastening of decomposition through aeration and microbial activity **Maximize Diversity** of crop rotation and with cover crops to **Keep Living Roots** to protect soil surface and add below ground biomass via root **Soil Armor** keeps organic matter in place and protected from loss via hastened decomposition **Integrate Livestock** to add nutrient rich source of organic matter
Compaction	Cover Crops/Mulch ● plant shallow rooted cover crops for surface hardness ● plant deep rooted cover crops, like tillage radish, for	**Minimize Disturbance** to protect soil structure, avoid plowpan or compaction layers, and maintain healthy balance of pore size and space.

	subsurface hardness ● use living mulch, or interseed cover crops Conservation Tillage/Equipment Activity ● avoid traffic and equipment activity on wet soils ● use mechanical loosening (e.g broadfork, aerating, strip tillage) for surface, or deep tillage (e.g. chisel plow, subsoiler, yeoman's plow) for short term alleviation ● avoid heavy equipment loads, or plows/disks that create pans ● Adjust stocking density or duration of grazing events	**Maximize Diversity** of crop rotation and with cover crops to include root systems that occupy different strata in the soil profile **Keep Living Roots** to maintain belowground channels and pore space created by living and dead roots **Soil Armor** to protect the soil surface from overdrying that leads to reduced water infiltration and contributes to hardening **Integrate Livestock** to add organic matter and promote below ground root growth and decay
Water Holding Capacity	Cover Crop ● Grow high biomass cover crop to increase organic matter Mulch ● Use organic materials to keep ground covered under plants and in pathways to conserve moisture and regulate temperature ● Leave crop residue on the surface of the soil to conserve moisture Conservation Tillage ● Reduce tillage, or use No-Till to improve soil structure and pore space Compost ● Add compost to increase organic matter and improve soil structure and pore space	**Minimize Disturbance** to protect organic matter and soil structure and to maintain healthy balance of pore size and space **Maximize Diversity** of crop rotation and with cover crops to include high biomass crops that help build organic matter **Keep Living Roots** in the soil to maintain healthy soil structure with channels and pore space created by living and dead roots **Soil Armor** to protect soil moisture and prevent surface drying that inhibits water infiltration I**ntegrate Livestock** using rotational grazing to build organic matter
Soil Crusting	Nutrient Management ● Use soluble calcium, or Gypsum to correct high sodium levels in soil Crop Rotation/Cover Crop ● Grow high biomass crops to build organic matter Mulch ● Use organic materials to protect soil surface from impact of rain or irrigation on soil particles ● Leave crop residue on the surface of the soil to protect and conserve moisture Conservation Tillage ● Reduce tillage, or use No-Till to protect soil surface from impact of rain and irrigation, protect soil structure, and reduce surface drying	**Minimize Disturbance** to protect organic matter and soil structure **Maximize Diversity** of crop rotations and use cover crops to build organic matter **Keep Living Roots** to protect soil surface and structure, and create pathways for water infiltration **Soil Armor** to protect soil surface from impact of rain, preserve soil moisture and prevent surface drying
Aggregate Stability	Cover Crop/Crop Rotation ● plant shallow rooted cover crop or cash crop	**Minimize Disturbance** to protect organic matter and microorganisms that help maintain healthy soil structure with

	• Incorporate Mycorrhizal host crop into rotation (many crops, aside from Brassica, are good host to Arbuscular Mycorrhizal Fungi) Compost/Mulch • Add compost, manure and/or fresh organic materials Conservation Tillage • Reduce tillage, or use No-till methods to reduce soil disturbance	variety of pore sizes and space **Maximize Diversity** of crop rotation and with cover crops to build organic matter and promote microbial communities **Keep Living Roots** to reduce erosion and provide food for soil microorganisms **Soil Armor** protects soil microorganisms that aid in aggregate formation, and reduce potential for erosion **Integrate Livestock** to increase organic matter and promote below ground biomass that feeds microorganisms and contributes to healthy soil structure
Biological Activity	Observe macroinvertebrates, such as earthworms, as an indicator of biological health, but consider adding Active Carbon, or other lab tests that monitor the amount, activity of soil organisms or the quality of food available to maintain a healthy population.	See how soil biology management recommendations relate to the 5 soil health principles.
Active Carbon	Cover Crop/Crop Rotation • Grow shallow-rooted cover crop and/or grow cover crops whenever possible • Add sod crop to rotation Conservation Tillage • Reduce tillage/mechanical cultivation, or use No-till methods Compost/Mulch • Add fresh organic materials, manure, mulch and/or compost	**Minimize Disturbance** to protect organic matter and microorganisms that help maintain healthy soil structure **Maximize Diversity** of crop rotations and with cover crops to promote diverse microbial communities **Keep Living Roots** to provide food source for soil microorganisms **Soil Armor** protects soil microorganisms that aid in aggregate formation **Integrate Livestock** to increase the amount and diversity of soil organisms that aid in organic matter formation
Soil Respiration	Cover Crop/Crop Rotation • Increase diversity of rotation • Maintain plant cover throughout the season/year • Cover crop with symbiotic host plants Conservation Tillage • Reduce tillage/mechanical cultivation, or use No-till methods Compost/Mulch/Organic Inputs • Add manure/green manure • Add fresh organic materials • Keep soil surface covered with mulch and/or crop residue Pest/Disease Management • Reduce biocide use	**Minimize Physical and Chemical Disturbance** to protect organic matter and microorganisms that help maintain healthy soil structure **Maximize Diversity** of crop rotations and with cover crops to promote diverse microbial communities **Keep Living Roots** to provide food source for soil microorganisms **Soil Armor** regulates temperature and moisture to protect soil microorganisms that aid in aggregate formation **Integrate Livestock** to add nutrient rich manure that increases the amount and diversity of soil organisms
Soil Protein	Cover Crop/Crop Rotation	**Minimize Disturbance** to reduce Nitrogen volatilization, protect

	• Incorporate young, green, cover crop biomass • Plant legume, or grass-legume mix • Inoculate legume seed with Rhizobia and check for nodulation • Rotate with forage legume sod crop Conservation Tillage • Reduce tillage/mechanical cultivation, or use No-till methods Compost/Organic Inputs • Use N-rich organic matter inputs, like manure or high-N well finished compost • Use low C:N ratio inputs • Monitor C:N ratio over time Chemical/Nutrient Management • Keep soil pH at 6.2-6.5 (helps N fixation) Pasture/Forage • Add legumes to forage species, and/or reseed if legume population is low • Check legumes in pasture for nodulation, and innoculate with Rhizobia if needed	organic matter and microorganisms that help maintain healthy soil structure **Maximize Diversity** of crop rotations, cover crops and fresh organic materials to promote microbial communities needed for N mineralization **Keep Living Roots** to provide food source for soil microorganisms and root hosts for Nitrogen fixing Rhizobia **Soil Armor** regulates temperature and moisture to protect soil organisms that aid in decomposition of organic materials and N mineralization **Integrate Livestock** to add nutrient rich manure that increases soil organic matter and food for soil organisms

1. *Adapted from* Cornell Comprehensive Assessment of Soil Health, The Cornell Framework Manual, Third Edition. B.N. Moebius-Clune, D. J. Moebius-Clune, B.K. Gugino, O.J. Idowu, R.R. Schindelbeck, A.J. Ristow, H.M. van Es, J.E. Thies, H. A. Shayler, M. B. McBride, D.W. Wolfe, and G.S. Abawi. Cornell University. 2016. Page 84-85.

Appendix B- Soil Health Planner

Month/Year	**Activity**	**Notes**
January		
February		
March		
April		
May		
June		

July		
August		
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