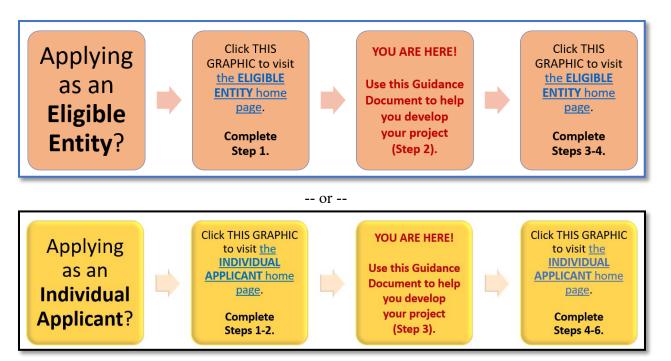
NMDA's Healthy Soil Program Guidance Document: Developing Your Fiscal Year 2027 (FY27) Project

This document is designed to help Individual Applicants and Eligible Entities alike fully develop the technical (agricultural, natural resources, etc.) aspects of their respective projects for NMDA's Healthy Soil Program. This document does not need to be submitted as part of the Healthy Soil Program's online grant application. Rather, its purpose is simply to guide you in developing the project you will submit for funding consideration.



How to use this guidance document:

- 1. Once you have completed the application steps in which you identify your soil health-related resource concerns, use the **Resource Concern Guide Sheets** (cropland or rangeland) below. They will help you understand the relationship between soil health-related resource concerns, soil health principles, and the agricultural practices that can be implemented to address those resource concerns.
 - a. **Individual Applicants** are encouraged to work with their NRCS conservation planner to further plan and develop the agricultural practices that will be utilized. This could include guidance on seeding rates, application rates of compost or other organic amendments, timing of application, overall project timeline, etc.
 - b. Eligible Entities are encouraged to seek assistance from their <u>local NRCS field</u> <u>office</u> for guidance on seeding rates, application amounts of compost or other organic amendments, timing of application, overall project timeline, etc.



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- 2. Refer to the <u>Proven Practice Chart</u> below. The Proven Practice Chart lists practices proven to have the most beneficial impact on soil health, as well as nondurable goods, durable goods, and services that are necessary to implement those practices.
 - a. **NOTE:** Nondurable goods, durable goods, and services listed in the chart will be considered for funding based upon the justification you provide in your grant application.
 - b. Applicants must refer to NMDA's Healthy Soil Program website for a complete list of all application requirements, as well as critical program dates and deadlines. NMDA strongly encourages you to refer to the Frequently Asked Questions (one posted on the Other on the Individual Applicant web page) to ensure your project fits within all program criteria.



NMDA's Healthy Soil Program Resource Concern Guide Sheet for CROPLAND

This guide sheet is designed to help you select agricultural/conservation practices to address your existing soil health-related natural resource concerns on **cropland**. It is intended as a starting point rather than as an exhaustive list of all resource concerns and all agricultural practices that can address existing resource concerns. These agricultural practices align with those promoted by the New Mexico office of USDA's Natural Resources Conservation Service (NRCS). The three-digit codes associated with NRCS New Mexico Practice Standards are listed and hyperlinked below to provide you additional information.

The soil health principles as defined in the 2019 Healthy Soil Act are listed below. They correspond with the numbers in the right-hand column of the chart that follows.

- 1) keeping soil covered
- 2) minimizing soil disturbance on cropland and minimizing external inputs
- 3) maximizing biodiversity
- 4) maintaining a living root
- 5) integrating animals into land management, including grazing animals, birds, beneficial insects or keystone species, such as earthworms

Resource Concern	EXAMPLES of Agricultural Practices on Cropland	on Soil Health Principle		
Erosion (wind and water) Presence of eroding soil (soil	Cover crops to protect soil surface (340) No-till (329) or reduced-till (345) farming	1, 2, 3, 4		
movement both on to and off of	techniques			
the field) due to wind, rain, or irrigation water application	Field borders (unharvested crop residue and/or high-residue plantings along field edges; shrub establishment) (386)	1, 2, 3, 4, 5		
	Mulching (484)	1, 2, 3		
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Low soil organic matter	Cover crops (340)	1, 2, 3, 4		
Lack of organic materials at various stages of decomposition	Organic-based soil amendments (compost, manure, biochar, etc.) (590), (484)	3		
within the soil	Diverse crop rotation (cash crop) (328)	1, 3, 4		
	No-till (329) or reduced-till (345) farming techniques	1, 2, 4		
	Proper grazing of cover crops/cash crops (528)	3, 5		
Water infiltration and	Cover crop mixes with various rooting	1, 2, 3, 4		
percolation	depths (<u>340</u>)			
Poor water movement into and within the soil (ponding of water	Organic-based soil amendments (compost, manure, biochar) (590), (484)	3		
after rain events or irrigation)	Short-duration, high-intensity grazing (528)	5		



NMDA's Healthy Soil Program Resource Concern Guide Sheet for CROPLAND

Resource Concern	EXAMPLES of Agricultural Practices on Cropland	Soil Health Principle
Soil compaction Layers of compacted soil on the	Cover crop mixes with various rooting depths (340)	1, 2, 3, 4
soil surface (surface crusting) and/or within the subsoil (plow	No-till (329) or reduced-till (345) farming techniques	1, 2, 4
layers) that prevent water	Short-duration, high-intensity grazing (528)	5
movement and root growth	One-time deep tillage (during initial transition period) * (324)	
	Mulching (484)	1, 2, 3, 4
	Organic-based soil amendments (compost, manure, biochar, etc.) (590), (484)	3
Poor soil structure Aggregate instability, poor	Cover crop mixes with various rooting depths (340)	1, 2, 3, 4
aggregate size distribution, and poor distribution of pore sizes	Organic-based soil amendments (compost, manure, biochar, etc.) (590), (484)	3
	Diverse crop rotation (cash crop) (328)	1, 3, 4
	No-till (329) or reduced-till (345) farming techniques	1, 2, 4
Lack of biodiversity	Cover crops (multi-species mix) (340)	1, 2, 3, 4
A lack of diversity among the	Diverse crop rotation (cash crop) (328)	1, 3, 4
plants, animals, and soil	Field borders (unharvested crop residue	1, 2, 3, 4
organisms interacting with the	and/or high-residue plantings along field	
soil	edges; shrub establishment) (386)	
	Organic-based soil amendments (compost, manure, biochar, etc.) (590), (484)	3
	Minimized use of pesticides (herbicides, insecticides, etc.) (595)	1, 2, 3, 4, 5
	Pollinator habitat establishment (327)	1, 3, 4, 5

^{*} Deep tillage can be utilized where a considerable compaction layer exists that needs to be broken up to allow root penetration. This tillage operation is to be used only one time during the initial transition into a soil health system.



NMDA's Healthy Soil Program Resource Concern Guide Sheet for RANGELAND

This guide sheet is designed to help you select agricultural/conservation practices to address your existing soil health-related natural resource concerns on **rangeland**. It is intended as a starting point rather than as an exhaustive list of all resource concerns and all agricultural practices that can address existing resource concerns. These agricultural practices align with those promoted by the New Mexico office of USDA's Natural Resources Conservation Service (NRCS). The three-digit codes associated with NRCS New Mexico Practice Standards are listed and hyperlinked below to provide you additional information.

The soil health principles as defined in the 2019 Healthy Soil Act are listed below. They correspond with the numbers in the right-hand column of the chart that follows.

- 1) keeping soil covered
- 2) minimizing soil disturbance on cropland and minimizing external inputs
- 3) maximizing biodiversity
- 4) maintaining a living root
- 5) integrating animals into land management, including grazing animals, birds, beneficial insects or keystone species, such as earthworms

Resource Concern	EXAMPLES of Agricultural Practices on Rangeland	Soil Health Principle
Decreased plant productivity and	Prescribed grazing (<u>528</u>)	1, 2, 3, 4, 5
health	Native grass and/or pollinator habitat	1, 2, 3, 4, 5
Lack of overall forage production	establishment (<u>550</u>), (<u>327</u>)	
and health of existing plant species	Temporary fencing * (382)	
	Organic-based soil amendments (compost,	3
	manure, biochar, etc.) (<u>484</u>), (<u>590</u>)	
Insufficient plant species and	Prescribed grazing (528)	1, 2, 3, 4, 5
composition	Native grass and/or pollinator habitat	1, 2, 3, 4, 5 1, 2, 3, 4, 5
Plant community composition of	establishment (<u>550</u>), (<u>327</u>)	
warm-season grasses, cool-season	Cover crops to improve soil fertility/plant	1, 3, 4, 5
grasses, forbs, and shrubs not	diversity (340)	
consistent with management goals	Temporary fencing * (382)	
	Organic-based soil amendments (compost,	3
	manure, biochar, etc.) (484), (590)	
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Lack of soil biodiversity	Prescribed grazing (<u>528</u>)	1, 2, 3, 4, 5
A lack of diversity among the	Native grass and or pollinator habitat	1, 2, 3, 4, 5
plants, animals, and soil organisms	establishment (<u>550</u>), (<u>327</u>)	
interacting with the soil	Cover crops to improve biodiversity (340)	1, 3, 4, 5
	Temporary fencing * (382)	



NMDA's Healthy Soil Program Resource Concern Guide Sheet for RANGELAND

Resource Concern	EXAMPLES of Agricultural Practices on Rangeland	Soil Health Principle	
Low soil organic matter	Prescribed grazing (<u>528</u>)	1, 2, 3, 4, 5	
Lack of organic materials at various stages of decomposition within the	Native grass and or/pollinator habitat establishment (550)	1, 2, 3, 4, 5	
soil	Cover crops to improve soil organic matter (340), (327)	1, 3, 4, 5	
	Temporary fencing * (382)		
	Organic-based soil amendments (compost, manure, biochar, etc.) (484), (590)	3	
	Bale grazing (E528P)	1, 5	
Soil erosion (wind and water)	Prescribed grazing (528)	1, 2, 3, 4, 5	
Presence of eroding soil (soil movement both on to and off of the	Native grass and or pollinator habitat establishment (550), (327)	1, 2, 3, 4, 5	
land) due to wind or rain	Cover crops to maintain soil structure and increase infiltration (340), (327)	1, 3, 4, 5	
	Temporary fencing * (382)		
	Organic-based soil amendments (compost, manure, biochar, etc.) (484), (590)	3	
Water infiltration and	Prescribed grazing (<u>528</u>)	1, 2, 3, 4, 5	
percolation	Native grass and or pollinator habitat	1, 2, 3, 4, 5	
Poor water movement into and	establishment (<u>550</u>), (<u>327</u>)		
within the soil (ponding of water after rain events)	Cover crops to maintain soil structure and increase infiltration (340)	1, 3, 4, 5	
	Temporary fencing * (382)		
	Organic-based soil amendments (compost, manure, biochar, etc.) (484), (590)	3	

^{*} Temporary fencing does not directly correlate to a soil health principle but instead must be utilized in conjunction with other agricultural practices and an overall management plan.



NMDA's Healthy Soil Program Proven Practice Chart

Practice	Applicable Land use	Associated Non- Durable Goods	Associated Durable Goods	Associated Facilitating Services	Special Considerations
Cover crop	Cropland, Rangeland, Orchard, Subsistence/ Community Garden	Multi-species cover crop seed	No-till drill/planter	Contractor service for planting or tractor and no-till drill rental	Applicants must justify their seeding rates if greater than NRCS-recommended seeding rates
Field border	Cropland	Seed, shrubs/trees. (Non-cash crop species)	Irrigation system if necessary for establishment	Contractor service for planting	Species that appear to be selected solely for aesthetic value are subject to extra scrutiny and possible removal
Mulching	Cropland - (for weed suppression, moisture management, or erosion control)	Mulch (organic- based mulch)	N/A	Contractor, delivery/ application	Applicants should make every effort to justify their mulch application rate if greater than the documented advice of a technical expert, such as their NRCS conservation planner. Heavy application rates without justification are subject to extra scrutiny and possible reduction
Compost	Cropland/ Rangeland	Compost	Spreader	Contractor, delivery/ application	Applicants must justify applying amounts greater than 20 cubic yards per acre or 10 tons/acre
Other organic-based soil amendments	Cropland/ Rangeland	Organic based soil amendments	Spreader	Contractor, delivery/ application	Biochar applications should not exceed 5 tons per acre



NMDA's Healthy Soil Program Proven Practice Chart

Practice	Applicable Land use	Associated Non- Durable Goods	Associated Durable Goods	Associated Facilitating Services	Special Considerations
Range seeding	Rangeland, wildlife habitat management areas	Native seed	Grass seed drill	Contractor service for planting, tractor/drill rental	Applicants must justify their seeding rates if greater than NRCS-recommended seeding rates
Cropland conversion to rangeland	Cropland	Native seed	Fence, pipeline, livestock watering facility	Contractor service for planting, tractor/drill rental	Applicants must work with NRCS to develop a prescribed grazing plan if animal integration is part of the project
Bale grazing	Cropland/ Rangeland	Нау	Fence, pipeline, livestock watering facility	Delivery of hay	Applicants must work with NRCS to complete NMDA's Bale Grazing Template
Prescribed grazing	Cropland/ Rangeland	N/A	Fence, pipeline, livestock watering facility	Contractor installation of fence, pipeline, watering facility	Applicants must work with NRCS to develop a prescribed grazing plan
Pollinator habitat	Cropland/ Rangeland	Seed, shrubs/trees. (Non-cash crop species)	Fence (exclusion), irrigation system if necessary for establishment	Contractor service for planting	Species that appear to be selected solely for aesthetic value are subject to extra scrutiny and possible removal
Deep tillage/sub- soiling	Cropland/ Rangeland	N/A	N/A	Contractor services to implement practice	In cropland, tillage is supported only as a means of transitioning to reduced/no tillage
Keyline plowing	Cropland/ Rangeland	N/A	N/A	Contractor services to implement practice	

