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| **Producer:** |  | **Project or Contract:** |  |
| **Farm Name:** |  | **Planner/TSP:** |  |
| **Location:** |  | **Date:** | Click or tap to enter a date. |

**Purpose:** Design the installation of planned soil health practices based on results from a soil health test.

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**Description of Work:**

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| **Individual(s) Collecting Soil:** |  | **Planned Soil Testing Date:** |
|  |  | Click or tap to enter a date. |

**Planned Practices or Activities to Design**

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| --- | --- | --- | --- |
|  | Conservation Cover (327) |  | Forage and Biomass Planting (512) |
|  | Conservation Crop Rotation (328) |  | Prescribed Grazing (528) |
|  | Residue & Tillage Management, No-Till (329) |  | Range Planting (550) |
|  | High Tunnel System (325) |  | Nutrient Management (590) |
|  | Amending Soil Properties with Gypsum (333) |  | Pest Management Conservation System (595) |
|  | Controlled Traffic Farming (334) |  | Salinity & Sodic Soil Management (610) |
|  | Cover Crop (340) |  | Soil Carbon Amendment (808) |
|  | Residue & Tillage Management, Reduced-Till (345) |  |  |
|  | Mulching (484) |  |  |
|  | Irrigation Water Management (449) |  |  |

**Soil Collection and Handling**

**Timing:** Soil can be collected prior to beginning growing season activities, throughout the growing season or after harvest, providing it is done when there is adequate soil moisture and there have not been any recent physical disturbances, additions of soil amendments, or other chemical inputs.

Obtain soil test results prior to practice installation. Use the same georeferenced locations and sample under similar soil conditions, and if possible, the same time of year in the future to monitor practice effects.

**Location:** Identify the Conservation Management Unit (CMU) where soil sampling will take place. A CMU can be 1 or more Planning Land Units (PLU) with similar soil type, land use, and management. A CMU is typically less than 20 acres but may be larger depending on soil type, topography and cropping system.

Collect soil from at least 3 representative locations (main locations) within a CMU. At each main location, collect soil from the main location and 4 subsamples around the main location (5 subsamples per/location). Combine all 15 subsamples to create 1 composite sample.

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| Identify at least 3 main representative locations within a CMU. Soil will be collected and combined from all 3 locations. | Select 4 sites surrounding each main location to subsample. Collect and mix soil from all 5 sites. Space 20-50 ft apart. | When there is a spatial limitation, like a road or property line, select 4 sites in a more linear, W-shaped, or zig-zag pattern. |

Avoid collecting or combining soil samples from:

* Wheel tracks or drive lanes, field borders, depressions, or other odd areas within the field
* Areas with historically lower or higher productivity
* Different landscape positions
* Fields with different crops or rotations, or the same crops with a different management
* Row versus inter-row areas
* Eroded versus non-eroded areas
* Saturated soil

**Collection:**

* Ensure all equipment is clean and free from residue prior to collection
* Remove vegetation or debris on soil surface
* Use a tile spade or straight shovel and dig a small hole about 8 inches deep
  + A soil probe ≥ 1-inch diameter may be used in place of a spade, but it is not a preferred tool.
  + Use of probes may interfere with aggregate stability results.
* Take a vertical, rectangular slice of soil from one side of the hole, approx. 2 inches thick and 6 inches deep
  + Keep the slice the same width at the top and bottom
  + Ensure the sample does not have more soil from the top or bottom of the slice
  + If needed, remove any extra soil to ensure an even, rectangular sample.
* Place into a relatively clean bucket
* Repeat the steps for all 14 of the remaining sampling locations
* Thoroughly mix and put 4-5 cups of soil into a one-gallon re-closable freezer bag
  + Add an additional 1-2 cups for the comprehensive chemical test
  + Consider saving additional soil to archive for future analysis (*e.g.* new molecular techniques)

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| **Using a shovel to collect a 2-inch thick slice of soil for soil health testing** | | | |
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|  | Photo credit: Kirsten Kurtz | | |

**Sample Identification:** Create a sample ID and label re-closable bags prior to going to the field. Use the following format for sample ID.

*5 Digit Zip Code – Producers Initials (XX) – Date (MMDDYY)– Soil Map Unit Symbol (MuS) – Sample Number*

Record sample ID, GPS data, and any other observations or internal cross-reference information (Pii) on an additional document to place in the customers NRCS folder.

**Handling and Shipping:** When returning from the field, if samples will not be immediately processed, place them in a refrigerator. Split the sample into appropriate amounts for soil health testing, chemical testing, or archiving.

* Do not freeze or air-dry the soil being sent for soil health and nutrient analyses.
* If archiving, dry the soil and store in a sealed glass container.
* Double bag the soil to ensure against bag breakage during shipping.
* Do NOT put the submission form in the sample bag.
* Ship soil and submission forms in a tightly packed cardboard box using 2- or 3-day service.
  + Ship on a day that ensures samples do not arrive on the weekend or a holiday.
* Follow all [USDA-APHIS regulations](https://www.aphis.usda.gov/aphis/ourfocus/planthealth/import-information/permits/plant-pests/sa_soil/domestic-soil) for prohibited, regulated, or quarantined soils.

**Post Analysis Scoring and Interpretation:** All participants in the NRCS soil health testing program must have their raw data scored by NRCS prior to delivering results to producers. It is the responsibility of the laboratory to send the data to [SoilHealthTest@usda.gov](mailto:SoilHealthTest@usda.gov). Raw data will be transformed using the Soil Health Assessment Protocol and Evaluation (SHAPE) procedure then returned to the lab. The laboratory will deliver final results to the individual(s) who collected the sample.

**Practice Checkout and Certification**

I certify that implementation of this conservation practice is complete, meets criteria for the stated purpose(s), and meets the NRCS conservation practice standard and specifications.

Check out and Certification by:

Planner/Technical Service Provider Signature

Click or tap to enter a date.

Date: