KELLOGG SOIL SURVEY LABORATORY EQUIPMENT AND MATERIALS

REQUEST FOR ASSISTANCE

The objectives of a project or study form the basis for designing the sampling strategy. A carefully designed sampling plan takes into account site selection, depth of sampling, type and number of samples, details of collection, and sampling and subsampling procedures to be followed.

CHARACTERIZATION PROJECTS: Designed to obtain comprehensive soil characterization data for a representative pedon for research or map refining purposes. Samples are collected from each horizon including bulk samples of approximately 3 kg, and three clods of natural fabric for bulk density and one micromorphology clod (if requested) for each layer. Bulk density rings, compliant cavity kits, and confined core cylinders are supplied on request.

DYNAMIC SOIL PROPERTIES (DSP): Fixed-depth sampling in concert with pit sampling: used when specified objectives (e.g., surface compaction studies, dynamic soil properties) address properties by fixed depths (e.g., 0 to 5 cm or 5 to 10 cm) instead of by horizons (Schoeneberger et al., 2012). Data collected by fixed-depth are comparable within a study and to other studies employing the same depths.

SUBAQUEOUS SAMPLING: Subaqueous soils differ from subaerial, or terrestrial, soils by having perennial water on the soil surface. These soils occur in shallow freshwater and marine environments, such as ponds, lakes, and the subtidal areas of estuaries and tidal embayments. Areas with extreme tidal ranges are also included as subaqueous soils even though they may be exposed for an hour or two during a neap tide or similar event.

The KSSL provides a limited set of equipment and materials tailored to the goals of the project sampling. Please refer to the tables below regarding project types and materials in your Request for Assistance. If you require a subset of what is offered (example: sample containers but not sampling equipment), or, additional materials based on project needs and size, please let the KSSL know when making your request.

NRCS, National Soil Survey Center
100 Centennial Mall North; Federal Building, Room 152
Lincoln, NE 68508-3866
Phone: 402-437-5499

Standard equipment and consumables for Characterization sampling

ITEM #	ITEM DESCRIPTION	ITEMS/KIT
SAMPLING EQUIPMENT		
1	INDUSTRIAL STAPLER WITH STAPLES	1
2	PERM. MARKERS	2
3	PICTURE TAPE	1
4	SAMPLING PANS (1Lg. 1 Sm)	1
5	SMALL SCOOP	1
6	BULK DENSITY RINGS (3” available)	UPON REQUEST
7	COMPLIANT CAVITY KIT	UPON REQUEST
8	CONFINED CORE CYLINDERS AND CAPS	UPON REQUEST
9	MOISTURE TINS	UPON REQUEST
CLOD EQUIPMENT		
10	BOX OF HAIR NETS	144
11	CLOD BAGS WITH TWIST TIES	200
12	CLOD BOXES w/ INSERTS	6
13	CLOTHESLINE ROPE	1
14	CLOTHES PINS	18
15	GALLON PAINT CAN WITH LID	1
16	SARAN POLYMER 1:4 RATIO STANDARD, 1:7 RATIO ON REQUEST	2
17	STIRRING STICKS	2
18	WATER PITCHER	1
SAMPLING CONSUMABLES AND SAMPLING SUBMISSION MATERIALS		
19	BULK SAMPLE BAGS AND TAGS	25 per BUNDLE, REQUEST # OF BUNDLES
20	CLOD BOX LINERS	6
21	CLOD TRUNKS	2
22	LINERS FOR SHIPPING BOXES	# BASED ON PROJECT SIZE
23	SHIPPING BOXES 18×18×12	# BASED ON PROJECT SIZE

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Dynamic Soil Properties, Intensive Project Materials

ITEM #	ITEM DESCRIPTION	ITEMS/KIT
1	ITEMS IN STANDARD EQUIPT LIST OUTLINED ABOVE	1
2	6”× 9” ZIPLOCK BAGS	# BASED ON PROJECT SIZE
3	PINT CONTAINERS WITH LIDS	# BASED ON PROJECT SIZE
4	YELLOW DSP SAMPLE TAGS	# BASED ON PROJECT SIZE

Dynamic Soil Properties, Intermediate Project Materials

ITEM #	ITEM DESCRIPTION	ITEMS/KIT
1	6”× 9” ZIPLOCK BAGS	# BASED ON PROJECT SIZE
2	PINT CONTAINERS WITH LIDS	# BASED ON PROJECT SIZE
3	YELLOW DSP SAMPLE TAGS	# BASED ON PROJECT SIZE

Subaqueous Sampling Materials

ITEM #	ITEM DESCRIPTION	ITEMS/KIT
1	4 oz PLASTIC CONTAINERS FOR OXIDIZED pH	# BASED ON PROJECT SIZE
2	6”× 9” ZIPLOCK BAGS	# BASED ON PROJECT SIZE
3	BULK SAMPLE BAGS AND TAGS	25 per BUNDLE, REQUEST # OF BUNDLES
4	COOLERS	# BASED ON PROJECT SIZE
5	INDUSTRIAL STAPLER WITH STAPLES	1
6	SAMPLING SYRINGE	UPON REQUEST
7	SHIPPING LINERS	# BASED ON PROJECT SIZE

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