Extension
University of Missouri

Soil and Plant Testing Laboratory

University of Missouri
23 Mumford Hall
Columbia, MO 65211
Phone: 573-882-0623
Fax: 573-884-4288
Email: *soiltestingservices@missouri.edu*

http://soilplantlab.missouri.edu

Soil Sample Information for Field Crops

Serial No. T

Name _____

Address _____

City _____ State _____ ZIP _____

Phone _____ Fax _____

Email _____

County of origin _____ ☐ Bill county or ☐ Bill firm

Billing county code _____ Send copy to FSA? _____

Date _____ / _____ / _____

Account No.: Firm _____ (if applicable) Outlet _____ (if applicable)

Firm _____

Address _____

City _____ State _____ ZIP _____

Phone _____ Fax _____

Email _____

Crop Codes and Common Yield Goals

(Instructions on back of form)

Crop code		Yield goals
	New plantings	
1	Alfalfa or alfalfa/grass establishment	0
2	Birdsfoot trefoil/grass establishment	0
3	Clover or clover/grass establishment	0
4	Cool-season grass establishment	0
5	Lespedeza/grass establishment	0
6	Overseeding legumes into grass	0
7	Warm-season grass establishment	0
8	Wildlife food plot	0
9	Bermudagrass establishment	0
10	Alfalfa or alfalfa/grass hay	3–7 tons/a
11	Alfalfa or alfalfa/grass pasture	100–250 cow days/a
12	Birdsfoot trefoil/grass pasture	100–200 cow days/a
13	Bluegrass pasture	100–200 cow days/a
14	Bermudagrass hay	2–6 tons/a
15	Bermudagrass pasture	100–250 cow days/a
16	Clover or clover/grass hay	2–5 tons/a
17	Clover or clover/grass pasture	100–250 cow days/a
18	Cool-season grass hay	2–6 tons/a
19	Cool-season grass pasture	100–250 cow days/a
20	Cool-season grass seed/hay or pasture residue	0
21	Cool-season grass/stockpile fall growth	0
22	Lespedeza/grass hay	1–4 tons/a
23	Lespedeza/grass pasture	100–250 cow days/a
24	Sudangrass hay	3–5 tons/a
25	Sudangrass pasture	100–250 cow days/a
26	Warm-season grass hay	2–5 tons/a
27	Warm-season grass pasture	100–250 cow days/a
100	Barley	40–80 bu/a
101	Buckwheat	500–1,000 lbs/a
102	Cotton (lint)	500–2,000 lbs/a
103	Corn (grain)	80–300 bu/a
104	Corn (silage)	10–25 tons/a
105	Wheat/soybean double crop*	30–100 bu/a
106	Wheat/sunflower double crop*	30–100 bu/a
107	Wheat/sorghum (grain) double crop*	30–100 bu/a
108	Wheat/sorghum (silage) double crop*	30–100 bu/a
109	Oats	50–100 bu/a
110	Popcorn	1,500–1,800 lbs/a
111	Rice	5,000–10,000 lbs/a
112	Rye	30–80 bu/a
113	Sorghum (grain)	4,000–12,000 lbs/a
114	Sorghum (silage)	12–30 tons/a
115	Soybeans	30–80 bu/a
116	Sugarbeets	15–24 tons/a
117	Sunflowers	1,200–2,500 lbs/a
118	Tobacco	2,500–4,000 lbs/a
119	Wheat	40–120 bu/a
099	Idle	0

**Indicates yield goal for wheat ONLY.*

For variable rate application/precision ag only: (optional)

Choose P and K buildup period: ☐ 1 yr ☐ 2 yr ☐ 3 yr ☐ 4 yr

Cropping options (1-4)

Send report by: ☐ **Hard copy** ☐ **Email** ☐ **CSV**

Check (✓) test(s) desired

Lab No. (lab use only)	Sample	Field/sample ID (No more than 12 letters or characters)	Acres	Irrigated? (Y/N)	Topography	Last limed	Soil region	Prior crop code	1 Crop code	1 Yield goal	2 Crop code	2 Yield goal	3 Crop code	3 Yield goal	4 Crop code	4 Yield goal	Regular *	Zinc	Sulfur	Zn, Fe, Mn, Cu	Salts	Sodium	pH_w	Nitrate-N	NO_3-N&NH_4-N	Boron	Particle size	NO_3 and NH_4 only sampling depth
	1																☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
	2																☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
	3																☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
	4																☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
	5																☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
	6																☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
	7																☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
	8																☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

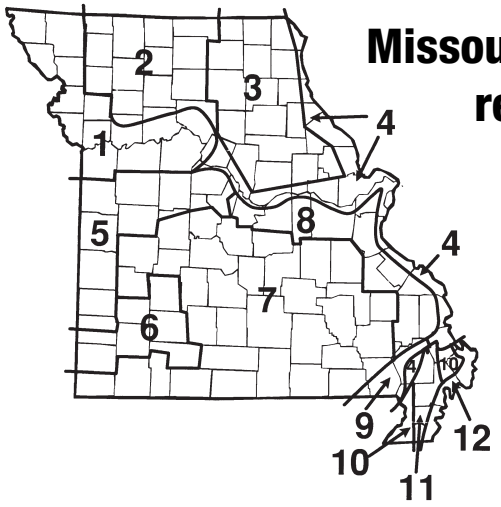
MP188 (Revised 8/2019)

*** Regular fertility test includes pH, N.A., P, K, Ca, Mg, CEC and OM**

Instructions

Up to eight soil samples from one grower may be entered on this form.

1. Fill in **Grower** information.
2. Fill in **Firm information** (if a firm is associated with the sample). **Firm and outlet numbers:** Use preassigned codes for soil samples being submitted directly to the soil testing lab by a dealer. Billing and payment will be made to the lab, not through a county extension office.
3. **County of origin** refers to the county where the sample was collected.
4. **Billing:** Check whether sample is to be billed to county or firm (samples submitted to county office should be billed to county).
5. **Billing county code:** A code is assigned to each county extension office.
6. Enter yes or no for **Copy to FSA** (Farm Service Agency).
7. On the bottom of the form in the **Field/Sample ID** area, enter any information that will help you identify this sample in your records.
8. Enter number of **acres** in the field where sample was taken.
9. Indicate whether the field was **irrigated**, Y or N.
10. **Topography:** Enter 1, 2 or 3.
    - Level upland = 1
    - Hilly upland = 2
    - Bottomland = 3
11. **Last limed:** Enter 1, 2, 3, 4 or 5.
    - Less than 1 year ago = 1
    - 1 to 5 years ago = 2
    - More than 5 years ago = 3
    - Never = 4
    - Unknown = 5
12. Enter number of **Soil Region** where the soil sample was taken (refer to Missouri map at right).
13. Enter the **Prior Crop Code** (take crop code from the list on the front of the form).
14. Enter the **Crop Code** for any crop you intend to harvest (see front of form for crop codes).
15. Enter the **Yield Goal** for the crop (see front of form for yield goal ranges).
16. Enter codes and yield goals for other crops you may plant now or in in the future, regardless of sequence; e.g., crop codes entered as 103, 115, 105 are equivalent to 115, 103, 105.
17. Place a check beneath each soil test you are requesting. If you are unsure, begin with the regular test or consult your regional agronomy specialist. The regular test includes pHs, neutralizable acidity, phosphorus, potassium, calcium, magnesium, organic matter and cation exchange capacity (see soil tests below).



Example (table)

This is what the field/sample ID would look like from a 10-acre field in northern Boone County on hilly land, limed five years ago, where soybeans were last planted and corn is to be planted with a goal of 150 bu/A.

Sample	Field / Sample ID (No more than 12 letters or numbers)	Acres	Irrigated (Y/N)?	Topography	Last Limed	Soil Region	Prior Crop Code	Crop Code	Yield Goal
1	10-A NB	10	N	2	2	3	115	103	150

Soil tests

Regular — Select for N, P, K and lime recommendations
Zinc (Zn) **Sulfur (S)** **Boron (B)**
Iron (Fe), Manganese (Mn), Copper (Cu) — Usually diagnostic test with Zn and S
Sodium (Na) — Run with salts for problem soils generally due to irrigation water
Salts (conductivity) — Total soil salts for problem soils
pHw — Testing pH in weak salt (pHs) is part of the regular soil test. Testing pH in water slurry (pHw) may be requested.
Nitrates (NO3-N), ammonium (NH4-N) — For fine tuning nitrogen needs. Top and subsoil samples required. Also, consult with agronomist on timing of sampling and interpretation of results.
Particle size — Particle size analysis measures the percentage of sand, silt and clay in soil. This test is used to determine the texture of the soil.

P and K buildup period for variable rate application

Standard University of Missouri recommendations use an 8-year buildup period for P and K fertilizer. Because of the additional application costs with variable rate application, you may want to choose a shorter buildup period. *In most cases, this option is unnecessary unless specifically recommended by an agronomist or an extension specialist.*

Delivery options for report

The section labeled “Send report by” lists three delivery options. You may select up to two delivery options. If you make no selection, the default delivery option will be to send a hard copy to the address provided.