GLOBE
Soil Fertility
Data Sheets

Print the Soil Fertility Data Sheet:

- Soil Fertility Data Sheet
  - The data sheet has space to record fertility for two soil horizons. Print extra copies if you are sampling more than two horizons.
  - **Data Entry Note:** You will need to add information about each horizon you are sampling before entering your fertility data, from the 'Create/Edit My Sites' button. For complete site definition, see the soil characterization protocol.

Or select an alternative option below:

- Soil Fertility with field guide (3 pages)
  - This data sheet has the field guide incorporated.

- Soil Fertility: Simplfied
  - Use this data sheet when working with those new to GLOBE and collecting data.

GLOBE Soil Fertility Data Sheet

Name: _____ Site Name: _____

Date: _____ Time (local): _____

- -

Date of soil collection: _____

- -

Soil Fertility Measurements

| Horizon # : _____ | Top Depth: _____ cm | Bottom Depth: _____ cm |

In the table below record: **U** = Unknown, **N** = None, **L**= Low, **M** = Medium, **H** = High

Sample Number	Nitrate (N)	Phosphorus (P)	Potassium (K)
1			
2			
3			

Comments:

- -

| Horizon # : _____ | Top Depth: _____ cm | Bottom Depth: _____ cm |

In the table below record: **U** = Unknown, **N** = None, **L**= Low, **M** = Medium, **H** = High

Sample Number	Nitrate (N)	Phosphorus (P)	Potassium (K)
1			
2			
3			

Comments:

> **Stop and Check:**
>
> Were all measurements read within 10 minutes?

GLOBE Soil Fertility Data Sheet and Field Guide (page 1)

Name: _____   Site Name: _____

Date: _____   Time (local): _____

- -

Date of soil collection: _____

- -

Soil Fertility Measurements

1. Record the soil horizon from which the sample came from.

   Horizon # : _____

2. Record the horizon depths.

   Top: _____ cm **Bottom**: _____ cm

Part 1: Nutrient Extraction

1. Fill the extraction tube from your Soil Test Kit to the 30 mL line with distilled water.

2. Add 2 Floc-Ex tablets. Cap the tube and mix well until both tablets have disintegrated.

3. Remove the cap and add one heaping spoonful of dry, sieved soil.

4. Cap the tube and shake for one minute.

5. Let the tube stand until the soil settles out (about 5 minutes). The clear solution above the soil will be used for the fertility tests.

6. If more clear solution is needed, repeat steps 1-5.

Part 2: Nitrate Nitrogen

1. Use the pipette to transfer the clear solution above the soil to one of the test tubes in the Soil Test Kit until the tube is filled to the shoulder.

2. Add one Nitrate WR CTA Tablet. Be sure that all the pieces of the tablet are added to the test tube and try not to touch the tablet as you place it into the tube.

3. Cap and mix until the tablet disintegrates.

4. Rest the test tube in a cup or beaker. Wait 5 minutes (and not longer than 10) for color to develop.

5. Compare the pink color of the solution to the Nitrogen Color Chart in the Soil Test Kit.

6. Record your results: **Sample #1, Nitrate:** ☐ None ☐ Low ☐ Medium ☐ High

7. Discard the solution and wash the tube and the pipette with distilled water.

8. Repeat this procedure twice more, recording data on table on page 3.

Soil Fertility Measurements Continued

Part 3: Phosphate Phosphorus

1. Use the pipette to transfer the clear solution above the soil to one of the test tubes in the Soil Test Kit until the tube is filled to the shoulder.

2. Add one Phosphorus Tablet. Be sure that all the pieces of the tablet are added to the test tube and try not to touch the tablet as you place it into the tube.

3. Cap and mix until the tablet disintegrates.

4. Rest the test tube in a cup or beaker. Wait 5 minutes (and not longer than 10) for color to develop.

5. Compare the blue color of the solution to the Phosphorus Color Chart in the Soil Test Kit.

6. Record your results: **Sample #1, Phosphorus:** ☐ None ☐ Low ☐ Medium ☐ High

7. Discard the solution and wash the tube and the pipette with distilled water.

8. Repeat this procedure twice more, recording data on table on page 3.

Part 2: Potassium

1. Use the pipette to transfer the clear solution above the soil to one of the test tubes in the Soil Test Kit until the tube is filled to the shoulder.

2. Add one Potassium Tablet. Be sure that all the pieces of the tablet are added to the test tube and try not to touch the tablet as you place it into the tube.

3. Cap and mix until the tablet disintegrates.

4. Hold the tube over the black boxes in the left column of the K portion of the color chart. Look through the "cloudiness" of the solution in the test tube and compare it to the shaded boxes in the right column.

5. Record your results: **Sample #1, Potassium:** ☐ None ☐ Low ☐ Medium ☐ High

6. Discard the solution and wash the tube and the pipette with distilled water.

7. Repeat this procedure twice more, recording data on table on page 3.

Soil Fertility Data Table

In the table below record: **U** = Unknown, **N** = None, **L**= Low, **M** = Medium, **H** = High

Sample Number	Nitrate (N)	Phosphorus (P)	Potassium (K)
1 (from pages 1 and 2)			
2			
3			

Repeat all steps for each soil horizon you are sampling!

- -

Comments:

GLOBE Soil Fertility Data Sheet: Simplified

Name: _____

Site Name: _____

Today's date: _____ Time (local): _____

- -

Date the soil was collected: _____

- -

Soil Fertility Measurements

Horizon # : _____

Top Depth: _____ cm | **Bottom Depth**: _____ cm

Sample Number	Nitrate (N)	Phosphorus (P)	Potassium (K)
1	☐ None ☐ Low ☐ Medium ☐ High	☐ None ☐ Low ☐ Medium ☐ High	☐ None ☐ Low ☐ Medium ☐ High
2	☐ None ☐ Low ☐ Medium ☐ High	☐ None ☐ Low ☐ Medium ☐ High	☐ None ☐ Low ☐ Medium ☐ High
3	☐ None ☐ Low ☐ Medium ☐ High	☐ None ☐ Low ☐ Medium ☐ High	☐ None ☐ Low ☐ Medium ☐ High

Stop and Check:

Were all colors read within 10 minutes of mixing?

- -

Notes: