

Soil Colors

Black or dark brown soil is rich in organic matter and usually found in the top 4-5 inches below the soil's surface.

Light brown may indicate that the soil is dry and does not retain water efficiently, especially if you have conducted your tests soon after watering.

Grey or bluish-grey usually indicate that the soil is wet most of the year and does not drain water efficiently. This will reduce the amount of air in the soil, which reduces the oxygen available to organisms that produce nutrients from organic matter and slows oxidation of mineral nutrients like iron and manganese.

Purple or purplish-black soil has a high concentration of manganese, a plant nutrient essential for photosynthesis and root growth.

Orange or red soil has a high concentration of iron oxide — also known as *rust*. Iron oxide forms in soil that is alternately wet and dry, and may be a sign that the soil drains water efficiently. Iron oxide also provides plants with iron, another essential nutrient for photosynthesis. In some cases, however, a high concentration of iron oxide may be caused by iron rich rock beneath the soil and indicate a deficiency of other nutrients.

Yellow indicates a high concentration of acidic minerals in the soil, which can reduce the availability of phosphorus, a plant nutrient essential for “fruiting and rooting.”