Soils and their effects on turf growth

Soil Texture Classification

<table>
<thead>
<tr>
<th>Soil separate</th>
<th>Diameter mm</th>
<th>Particles/gm number</th>
<th>Surface area in 1 g. sq. cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>stone</td>
<td>over 25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>coarse gravel</td>
<td>25-5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>fine gravel</td>
<td>5-2</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>very coarse sand</td>
<td>2-1</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>coarse sand</td>
<td>10-5</td>
<td>720</td>
<td></td>
</tr>
<tr>
<td>medium sand</td>
<td>.5-.25</td>
<td>5,700</td>
<td>45</td>
</tr>
<tr>
<td>fine sand</td>
<td>.25-.1</td>
<td>46,000</td>
<td>91</td>
</tr>
<tr>
<td>very fine sand</td>
<td>.10-.05</td>
<td>722,000</td>
<td>227</td>
</tr>
<tr>
<td>silt</td>
<td>.05-.002</td>
<td>5,776,000</td>
<td>454</td>
</tr>
<tr>
<td>clay</td>
<td>below .002</td>
<td>90,260,853,000</td>
<td>8,000,000</td>
</tr>
</tbody>
</table>

1. The number of natural soil types identified in United States is more than:
   a) 70
   b) 700
   c) 7,000
   d) 70,000

2. Peat is a preferred soil additive because:
   a) it improves nutrient retention
   b) it deteriorates slowly
   c) both of the above

3. The ideal soil pH for growing plants is:
   a) neutral
   b) slightly acidic
   c) slightly alkaline
   d) strongly alkaline

4. Besides neutralizing soil acidity, lime applications:
   a) add calcium and magnesium
   b) increase compaction
   c) decrease soil salinity
   d) all of the above

5. Soil compaction under turf can extend as deep as:
   a) one inch
   b) four inches
   c) one foot

6. Most fertilizers tend to make soils:
   a) more acid
   b) more alkaline
   c) neither

7. Generally, saline soils develop because of:
   a) adapted plant species
   b) poor drainage
   c) excessive traffic
   d) all of the above

8. Most sands are composed primarily of:
   a) mica

9. Low oxygen supply through the soil to the plant can be caused by:
   a) compaction
   b) overwatering
   c) both

10. The dark color of topsoil is caused by the presence of:
    a) earthworm casings
    b) potassium
    c) mineral matter
    d) moisture

11. In areas where earthworms are prevalent, rainfall penetrates the soil:
    a) more rapidly
    b) less rapidly
    c) neither

12. Thatch accumulation is favored in:
    a) clayey soil
    b) sandy soil
    c) loamy soil

Source:

Turf Managers' Handbook
COMPREHENSIVE PRACTICAL INSTRUCTION FOR ALL TURF PROFESSIONALS

ANSWERS: