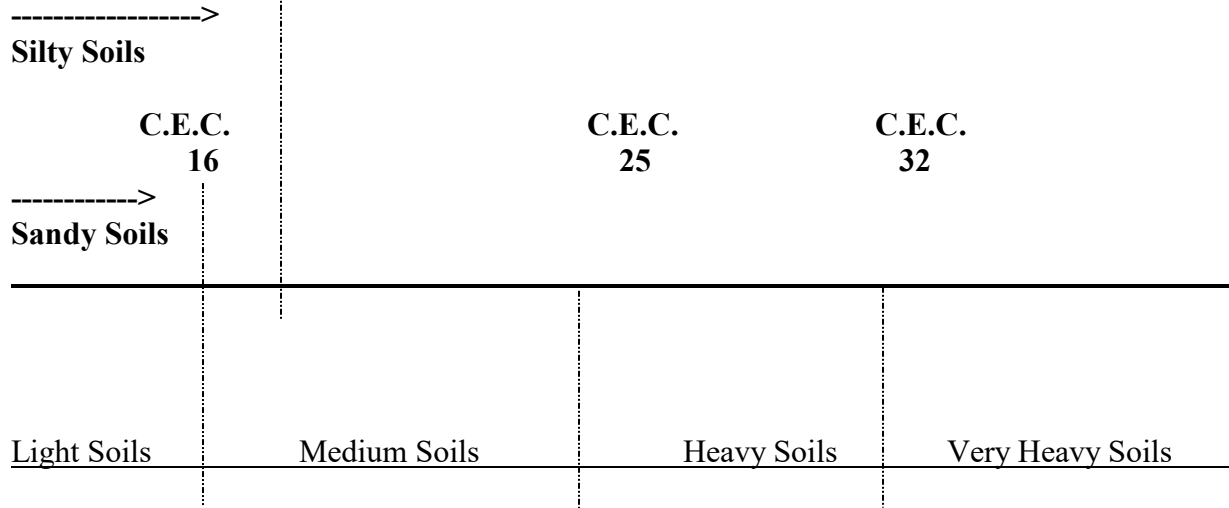


SOIL CATION EXCHANGE CAPACITY (C.E.C)

Ranges and Associated Conditions

C.E.C. = A Relative Soil Surface Area

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Increasing Percent of Clay and Organic Matter



Light Soils	Heavy and Very Heavy Soils
<ol style="list-style-type: none"> 1. Increasing need of irrigation for maximum yield potential 2. Percent organic matter is usually below 2.5%. 3. Greater probability of need for lime. 4. Silt soils fall in this group but have the characteristics of Heavy and Very Heavy soils although their holding capacity is low. Subsoil compaction if often associated. 	<ol style="list-style-type: none"> 1. Drainage become greater problem. 2. Increasing potential of soil compaction. 3. Soils stay colder and wetter in spring - may delay planting date. 4. Increasing amount of free Calcium and Magnesium gives C.E.C. readings higher than true surface areas. 5. C.E.C.'s above 32 lose their reliability except that statements #1,2, and 3 above are still associated. Also excessive proportions of Calcium or Magnesium may create Potash availability problems.

6. Increasing pH is usually associated.