

SOIL MANAGEMENT

- Understand and manage soil as a living ecosystem.
- Raised beds require better than average soil due to high plant density.
- Concentrate on improving soil tilth with annual applications of organic matter.
 - Add to top 6-8 inches of soil or the total depth in a raised bed.
 - Add gradually over time. Takes 3-5 years to build soil in new beds.
 - Goal for vegetable gardens is 4-5% organic matter.
 - Favor plant-based over animal-based compost.
- Avoid unnecessary tilling
 - Till once in spring to breakup winter compaction from snow, add amendments and prepare seed bed.
- Avoid working soil when wet - destroys soil structure (pore space).
 - Test: moist ball of soil should easily crumble.
- Protect soils from compaction - do not stand, sit, kneel, walk on soils.
- Use organic mulch - multiple benefits.
- Avoid excess fertilization. Colorado soils typically adequate in phosphorus and potassium.
- Water effectively to avoid overly dry or waterlogged soils. Use correct timing, amount and frequency.
- Avoid trying to make drastic changes in soil pH. If plants are growing well and look healthy, pH is acceptable.
- Avoid unwarranted pesticide application. Harmful to beneficial soil organisms.
- Avoid adding calcium-type amendments not needed in Colorado soils.
 - Lime, wood ash, gypsum, sulfur (more likely to cause problems).
- Do not add sand to clay soils. Must add 50-80% of total soil volume in coarse sand to effectively change soil texture; otherwise you make a brick.