

Garden Soils and Methods of Improvement
Sierra Vista Community Garden – Speaker De Lewis
25 January 2014

Improved Garden Soil Checklist

Garden Site:

Abundant year round sunlight – 10 hours minimum

- Its easier to create shade than to remove it

Access to water

- Don't make irrigation a stressful chore

Level ground

- Terracing may be advantageous

Good drainage

- Essential for all plants

Avoid hilltops, low areas, and windy locations

Blue stake; avoid utility infrastructure

Plan site to avoid compaction

- Reach across width or planned pathways

Determine soil texture

- Use as a guide for irrigation management

Determine soil fertility

- Laboratory soil analysis report with soil fertility recommendations is a powerful tool

Modify soil structure

- Addition of organic matter will increase water holding capacity in sandy soil and improved soil aggregate in clay soil, increase bio chemical and microbial activity

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Process for first year garden

1. Check drainage at all corners and center of plot. If drainage is insufficient, remediate or consider raised beds.
2. Level ground and remove debris and grasses.
3. Roughen soil surface.
4. Soak soil to just before run-off.
5. Allow soil to dry before proceeding.
Never dig wet soil! Permanent damage to soil structure may occur.
6. Add laboratory fertility recommendations.
 - a. If not done, add agricultural gypsum per label instructions.
7. Add 6” of compost; don’t skimp!
 - a. 60 sq ft plot = 30 cubic feet of compost
 - b. 100 sq ft plot = 50 cubic feet of compost
8. Soak until compost is sponge like to feel.
9. Dry overnight.
10. Spade to hilt of shovel or rototill to depth of tines.
11. Rake to level.
12. Irrigate to moist, not wet.
13. Allow to dry.
14. Double dig to depth capability – 24 to 30 inches added 3” of compost at greatest depth.
15. Allow no more compaction from here on.
16. Rake to level.
17. Irrigate to moist.
18. Wait 2 weeks for microbes to activate and heat soil.
 - Hasten by covering with clear plastic.

Feel the soil.

See the soil.

Smell the soil.

Improved garden ready for seeding, planting, or green manure crop.