

Best Practices for Community Gardens: Manage Pests, Weeds and Diseases

Keep Your Plants Healthy – grow the right plants, maintain soil health and fertility, provide adequate moisture

Keep Your Garden Clean – control weeds, remove plant debris

Spend Time in Your Garden – visit your garden frequently to control weeds and scout for pests and disease

Prevent and Manage Insect Damage

- Crop Diversity and Rotation - Grow a variety of crops and move crop families to different beds each year to prevent buildup of eggs, pupae, or larvae in the soil (where some pests over-winter on host plant debris)
- Sanitation – Clear the garden each year of plant debris, some pests will overwinter on host plant debris
- Eliminate weeds in the same family as pest-susceptible crops e.g. shepherd's purse and yellow rocket will harbor pests of Brassica crops; nightshade will harbor pests of tomato, pepper, eggplant, and potato
- Row Cover – Use early in the season to protect from insect damage; remove to allow pollination. Row cover can exclude aphids, cabbage worms, Colorado potato beetles, flea beetles, cucumber beetles, squash bugs, squash vine borer, bean beetles, and leaf miners.
- Plant trap (sacrificial) crops to lure pests away from vegetables you want to protect
- Learn the life cycle of most common insect pests. Schedule plantings and management measures accordingly.
- Scout your garden frequently for signs of damaging insects and take measures to prevent spread

Manage Weeds in the Garden

- Never allow weeds to go to seed, attack them when they are young
- Learn to use a hoe - Shallow cultivation, like hoeing, removes seedlings and doesn't disturb seeds buried deep in the soil
- Annual weeds – destroy seedlings by hand pulling, shallow hoeing, prevent seeding
- Perennial weeds – persistently remove leaves and any underground parts
- Mulch with seed free materials to deprive weeds of light
- Clean garden tools to prevent carrying weed seeds/parts throughout the garden
- Grow vigorous crops to out compete weeds
- Water at base of plants; sprinkling between rows waters weeds and encourages their growth

Prevent and Manage Disease in the Garden

- Select disease resistant cultivars
- Water at base of plants, not overhead. Avoid working in garden when plants are wet.
- Allow for good air circulation by allowing ample distance between plants and controlling weeds
- Conserve soil moisture with mulches to avoid plant stress
- Harvest mature vegetables
- Remove old/non-bearing plants regularly
- Control insects – some can transmit viruses
- Control weeds – some attract and harbor pests and diseases

Resources/Additional Information

- *Insects in the Garden: Attracting Beneficials, Managing Pests*
http://www.forsythcommunitygardening.com/documents/Insect_Overview.pdf
- *Outsmart the Weeds! Managing Weeds in Community Gardens*
http://www.forsythcommunitygardening.com/Documents/Weed_Management.pdf
- *Disease Prevention in Home Vegetable Gardens*
<http://extension.missouri.edu/p/G6202>
- *Common Diseases in the Home Garden*
<http://extension.missouri.edu/explorepdf/agguides/hort/g06203.pdf>
- *Trap Cropping to Control Pests*
<https://www.growveg.com/guides/trap-cropping-to-control-pests/>
- *Floating Row Cover – An organic gardening tool that improves plant growth and excludes pests*
http://www.forsythcommunitygardening.com/documents/Floating_Row_Cover.pdf