

- Q. Grasshoppers have invaded my cane berries; eating the leaves but not the fruit. Any suggestions for an organic solution (soapy and pepper water based sprays haven't been effective). Anyone else been infected this year with grasshoppers?
 - A. Grasshoppers are very difficult to control when their numbers are high (think biblical plague of locusts). Here is a link that has excellent information: Grasshoppers Management Guidelines--UC IPM.
- Q. I have a raised bed that was made several years ago and the dirt has compacted. Is it better to dig it up or add loose soil on top? I have heard that digging up soil disturbs the natural microbe population and can encourage weeds.
 - A. You are correct that digging up soil (tilling) can damage soil and bring up weed seeds from deeper layers. Some commercial growers are now converting to "No Till" farming. This is less of a concern with raised beds because of the character of the "soil" in the beds. Technically we usually refer to this material as "media" because it is so different from most native soils (it usually has a very high proportion of organic material). If the bed has not been used for several years, I recommend adding good quality compost to fill up the bed and then working that into the media that was already present.
- Q. Where can I get free or discounted soil/dirt? When they say dirt, does that mean a soil that can just be mixed with a potting soil?
 - A. I am not aware of a resource for free soil. But buying it in bulk (not bagged) will be much less expensive. We tend to avoid using the word "dirt" as it is imprecise. There is a lot of variation in available products so I suggest physically examining the product before purchase or purchasing a small amount as a sample. Raised beds really are just big containers so you could
- Q. Is drip irrigation the bmp to ensure plants are getting enough moisture without drowning the roots? I am in Florida and we also have very dry spurts through the year.
 - A. Using drip allows you to precisely control the amount of water delivered to your bed. The trick is you have to "control" it. Estimating irrigation requirements is difficult as there are so many variables affecting your plants water requirements plant type, soil type, sun exposure, drainage, humidity, wind, ambient temperature, rainfall etc. The best method is careful periodic examination of the plant and the deeper soil (3-4 inches below the surface). Keep in mind that plants that are overwatered can look just like plants that are underwatered (wilting). It is easier to rescue a plant that has been underwatered than one that has been overwatered.

Q. How do you deal with rat infestations?

A. Rats are a real challenge – probably a webinar in their own right. Here is a link with lots of useful information: Rat Management Guidelines--UC IPM.

Q. Pill bugs seem to have moved into all of my raised beds and are raising families in there. There are millions. I keep my beds clean and weed-free. What should I do about them?

A. Fun fact: pill bugs are crustaceans (like shrimp and lobsters). They feed mainly on decomposing (that is, dead) plant material. They serve important functions in recycling that material and building healthy soil. They usually do not cause significant plant damage in home gardens so its usually best to avoid pesticides. They do favor moist environments so make sure you are not overwatering your beds and water in the morning so beds can dry out by night when pill bugs are most active.

Q. My plants grow well, but many veggies grow smaller than they should. Any idea what could be causing this?

A. This may be due to environmental conditions. In my area (the Western foothills of the Sierra Nevada mountains in California) we just went through a very hot spring/summer. The heat started early in the growing season and interfered with fruit/veggie development. Of course, you should make sure that you have good soil quality, adequate drainage, irrigation, sun exposure, fertilizer etc.

Q. I can't rotate my crops. Any suggestions when mostly I grow tomatoes.

A. This is a common problem for home gardeners. We just don't have enough space to do proper crop rotation. I am not currently able to rotate my tomatoes and they have done fine so far (7 years in the same raised beds). If you do begin having problems, you may have to forego tomatoes (and all plants in the nightshade family – potato, eggplant, pepper) for a season or two.

Q. I'm outside Atlanta, here we can have veggies growing year round. Anything special I need to do to maintain healthy soils?

A. The best thing you can do for your soil is adding good quality compost before each growing season. You might want to try home composting – it's easy and very beneficial. Be sure to protect the soil with mulch or cover crops and, if you can, rotate your crops.

Q. Our community garden has been attacked by VOLES! How do I get rid of them?

A. Voles are small rodents – also called meadow mice. Interestingly, their populations can go through cyclic variations from low levels (when you probably don't even notice them) to high levels (up to several thousand voles per acre). When their populations are high they are very difficult to control. They can be trapped in mice traps but there may be so many voles you can't even make a dent in their numbers. Usually you just have to wait them out – the next season is usually better. Here is a good resource: Voles (Meadow Mice) Management Guidelines--UC IPM

Q. Does anyone use recycled plastic for raised beds?

A. If you mean Trex-like decking boards, they can be used but have poor lateral strength that may lead to the sides of the beds bulging out and losing soil. You could mitigate this by installing more posts to support the Trex. You might have to install them every 6 inches or so.

Q. How do you find a decent soaker hose? I've never had one last more than one season. They dry rot in our NJ sun.

A. That is one disadvantage of soaker hose. I suggest you try ½" in line drip tubing. I have some drip tubing that is 25 years old and still works. Covering the tubing with mulch can protect it from UV damage and prolong its life. It does however make it harder to catch malfunctions quickly and inspect it for proper functioning.

Q. What do you think of "Mel's Mix" used in square foot gardening? It's made of peat moss, perlite and compost.

A. I have no personal experience with it. It is equal parts compost, vermiculite and peat moss so it is a type of "potting soil." Since raised beds are just large containers (pots) I suspect it would work.

Q. Should you be feeding the soil DURING the growing season, adding Miracle Grow etc.?

A. It varies by crop but most benefit from periodic fertilization during growing season. Optimal timing and amount of fertilizer may vary as well. With my tomatoes, I supplement with dilute fish emulsion every 2-3 weeks. Avoid overfertilization as this will promote vegetative growth (stems, leaves) as opposed to reproductive growth (flowers, fruit, seeds).

Q. Could you plant a fall Cover crop and then turn it over before the snow comes?

A. Usually the cover crop is left undisturbed during the winter (to protect the soil) and then turned into the soil about one month before planting.

Q. How do you plant over an existing lawn that has zoysia grass?

- A. Planting over a lawn usually requires removing (or killing) the grass before planting. Here are four options:
 - 1. Dig out the turf (a lot of work).
 - 2. Sheet mulching (cover grass with thick layer 6 inches or more- of mulch often over a layer of cardboard).
 - 3. Solarization (cover grass with plastic sheeting during summer the excessive heat under the plastic usually will kill the grass).
 - 4. Herbicide.

None of these methods is perfect. Usually you will have to contend with regrowth of grass in some areas for a few years.

Q. Any suggestions for a Keyhole raised garden?

A. Here is some good info: Keyhole Garden Plans from Baker Institute.

Q. I am in Wisconsin. Is it okay to put organic peat moss over the raised bed at the end of the growing season and before the snow falls?

A. Yes, that would function as a mulch and help protect the soil over the winter.

Q. Where can I find that helpful cool weather / warm weather data sheet that was shown at the end?

A. Google "Placer County Master Gardeners", go to our home page and click on the "Vegetables" tab.

- Q. Do you favor organic or inorganic type fertilizers for vegetables?
 - A. Either can be used. Many gardeners are endorsing organic gardening practices as they are generally more environmentally friendly and may provide superior results.
- Q. What about ash/smoke from fires, even when fires are not nearby? Should you hose that off, remove in another manner or just let it go and just wash pants well when harvesting?
 - A. I suggest washing the produce well before you eat it.
- Q. I have many tomatoes, peppers (for example) that are growing well, but aren't turning color. Am I doing something wrong?
 - A. Your plants are forming fruit but it is not ripening. Many variables affect ripening date of planting, environmental conditions, plant variety, etc. Just leave them on the plant. If they don't ripen, you should harvest them before the first frost. Green peppers are fine to use they are usually milder than when they turn red (depending on variety). Green tomatoes can be pickled, made into chutney or breaded and fried (yum).
- Q. Tomatoes had burn holes in them facing the Sun most of the days. Maybe rather than sun could birds be eating the crop? Would netting protect from hot sun and birds?
 - A. You may be describing sun scald, basically the fruit gets sunburned. Shade cloth would help.