

Flooded Vegetable Garden Plots

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Looking forward to the vegetable garden this spring, it's easy to think that now that the flood waters have receded, our gardening season can carry on as usual. While many of the callers to Extension are aware of potential dangers of gardening on a flooded site, the exact way forward is a little unclear. Here is a synopsis of how flooding affects food safety in our vegetable gardens and orchards.

Flood waters carry contaminants, like *E. coli* and *Salmonella*, and an array of other stuff, like petroleum products, pesticides, dirt and sand. Mother Nature has in her toolkit some truly wondrous ways of dealing with contaminants, sunlight and soil microbes being two of them. It takes time for these to complete their work, however, so until contaminants are broken down and degraded, keep in mind some food safety guidelines.

Much of what we know about food safety, flooding, and contamination come from research conducted on the use of fresh manure in gardens. From this research, two blocks of time are key—the 90 day interval and the 120 day interval.

The 90 day interval starts when flood waters recede and extends to when harvesting for eating takes place. This refers to fruits and vegetables not in direct contact with the soil. So tomatoes (staked), peppers, eggplant, cucumbers (trellised), sweet corn, tomatillos, apples, pears and grapes fall in to this category.

The 120 day interval follows the same concept but is extended to those fruits and vegetables that are in direct contact with the soil. This includes strawberries, tomatoes (un-staked), muskmelon, watermelon, radishes, lettuce, carrots, potatoes, spinach, asparagus, cucumbers (un-trellised), morel mushrooms, herbs, and rhubarb. If the interval extends beyond harvest readiness, then discarding of the produce is recommended.

Other important considerations:

- Seeds and transplants can be planted into previously flooded soils before the time interval has elapsed as long as the harvest extends after the 90-day or 120-day intervals.
- Removal of transported soil and sand from the garden site does not negate the 90-day and 120-day rules.
- Cooking/canning kills some bacterial and viral contaminants from floodwaters but not all.
- Some seasonal fruits and vegetables will not be candidates for eating this spring, perhaps even this year.
- Harvesting before the interval has passed to store the produce in the refrigerator to wait out the remaining time does not count. Sunlight plays an important role in degrading contaminants.
- Vigorous scrubbing and chlorinated solutions destroy produce quality and do not dislodge all bacteria and contaminants from cracks and crevices in fruits and vegetables.