

Area 9

If the popular English nursery rhyme "Mary, Mary, Quite Contrary" was written today, I would offer an addition to the popular lyric.

More and more chemicals are being used in society and news reports frequently share information about soil and water contamination incidents across the country. Therefore, the rhyme might be of greater benefit today if it asks now only "How does your garden grow," but also "where does your garden grow?"

Soil is vital in successful gardening, but it is also imperative that good practices be utilized to avoid contaminants that can make us very sick or even kill us. More people in our area appear to be turning to home-grown vegetables to help offset rising food costs during the nation's economic downturn and the high rate of unemployment that is persistent as a result.

It is important to know that soil quality is affected by many factors. These include present and past land use and the garden's location in relation to pollution sites. Locally, there have been toxic sites identified stemming from the dumping of dangerous cancer causing chemicals. In my community, despite mandated Environmental Protection Agency cleanup by Cooper Industries, residents remain concerned about the safety of growing gardens in the Dayhoit community where extensive litigations have resulted from the high rates of rare forms of cancer and the high rates of cancer deaths.

The Cornell Waste Management Institute reports there is no clear line of what is considered safe, but if high levels of contaminants exist it is recommended to reduce exposure to children and adults. Predominant contaminants found in gardens built on old dump sites are lead, cadmium and tars.

Contamination of our soil can happen in many ways, including old landfills and dumped industrial waste sites such as I mentioned above. These are sometimes referred to as "brownfields."

Fruits and vegetables are vital to our good health, but those grown in contaminated soils can have fatal consequences. Experts today recommend knowing where the vegetables and fruits purchased at roadside markets are grown for health reasons. This practice of selling to passersby is commonplace in rural Kentucky as farmers attempt to move their goods quickly after their harvest.

Outbreaks of foodborne illnesses linked to fruits and vegetables have become commonplace. The University of Colorado reported outbreaks are linked to E-Coli and Salmonella on apples, lettuce, cantaloupe and sprouts. We hear of Listeria Moncoytogenes on cabbage and cantaloupe and Shigella on parsley and lettuce.

Various agencies recommend locating personal gardens in an area with the least potential for contamination from fresh manure. It should be as far away as possible from pet and livestock pens. It also is important to grow your food away from manure or compost piles. It is imperative that water runoff from the surrounding areas be considered in this process. For those wishing to fertilize their ground with manure, very specific guidelines are available from local cooperative extension service offices' agriculture agents.

Also, another recommendation for the small gardener is to utilize a system of raised beds. This allows for construction of beds which are filled with uncontaminated soils. Another options is growing vegetables in pots.

Although I reside in the city limits, an abundance of wildlife roams our neighborhood. It is now common to see a black bear, deer, fox, coyote, squirrel or numerous other species visiting our yard or garden. Efforts to keep them out of the gardens must be a priority to help prevent them from depositing fecal material onto the garden soil and possibly preventing direct contact with fruits and vegetables.

While we have public sewer in our community, there are many outlying areas that rely on septic systems and even the illegal use of "straight pipes." This is another area of concern for those growing gardens as the possibility for contamination greatly increases in these areas.

Because of many other hazards of soil contamination it is recommended gardeners avoid using the following areas:

- Where there is visible waste like glass, cinders, paint chips, building materials or visible soil stains;
- Next to roadways with busy traffic;
- Close to a shed, garage or other buildings constructed prior to 1978;
- Previous farmland or orchards;
- Where automotive work was done on soil;
- And, where there may have been a deck or play scape prior to 2005.

Environmental and health officials have defined soil quality criteria which includes how much contamination is permissible in soil. The limits were established with certain safety margins.

It is imperative that individuals and corporations practice good stewardship to protect our important natural resources. Industrial debris and household garbage must be disposed of properly in approved landfills, not buried along creek banks or in fields. Clean soil and water are imperative to producing safe foods for children and adults.

So, when you think about "how" and "where" your garden grows, "Mary, Mary Quite Contrary" shall demand it be in clean and fertile soil, where healthy vegetables ripen "all in a row."