

Raised bed gardens: Keeping your veggies - and your family - healthy

Seminar roadmap

- 🌱 Should you grow vegetables at home?
- 🌱 The nuts and bolts of raised beds
 - 🌱 Construction
 - 🌱 Planting and maintenance
- 🌱 Best practices
- 🌱 Questions!

Soil contamination

- 🌱 Root vegetables are the primary sources of dietary cadmium and lead
- 🌱 Heavy metals levels are higher in urban-grown vegetables than rural
- 🌱 Heavy metals are twice as high in soils near roads than near industrial areas

Examples of heavy metals found in residential soils

- 🌱 Arsenic from pesticides and old treated lumber
- 🌱 Lead from paint and gas
- 🌱 Zinc from rubber mulch

Old pressure-treated lumber

- 🌱 CCA: copper, chromium, arsenic
- 🌱 No longer sold, CCA lumber is still around
- 🌱 Metals leach out of wood and into soil as wood decomposes

Rubber mulch (see fact sheet)

- 🌱 Rubber mulches are made out of old tires
- 🌱 Tires contain heavy metals, including cadmium, chromium, and zinc
- 🌱 As mulch breaks down, metals are released to soil

Should you grow vegetables at home?

- 🌱 Yes!
- 🌱 Use raised beds to limit heavy metal contamination (**see fact sheet**)
 - 🌱 Can isolate from underlying soil
 - 🌱 Can use clean fill if needed
 - 🌱 Can locate in an area away from airborne contamination

Raised bed materials

- 🌱 Naturally resistant wood, including cedar, redwood, and juniper
- 🌱 New treated lumber (contains copper and boron)
- 🌱 Recycled plastic lumber
- 🌱 Concrete blocks

Good practices for raised bed management

- 🌱 Use your native soil for raised beds if possible
- 🌱 Have your soil tested
 - 🌱 Don't bother with kits
 - 🌱 Use university or government labs
 - 🌱 Request standard test plus organic matter:
 - 🌱 Nutrients - Heavy metals - Organic matter
 - 🌱 Can also test compost
- 🌱 Avoid excessive nutrients and maintain sustainable levels
- 🌱 Use certified compost
 - 🌱 The US Composting Council requires testing for
 - 🌱 heavy metals
 - 🌱 pathogens
 - 🌱 pesticides
 - to receive their Seal of Testing Assurance (STA).
- 🌱 Or make compost at home (**see fact sheet**)
 - 🌱 Only add clean material
 - 🌱 no pesticides
 - 🌱 no sprayed plant material
- 🌱 Use arborist wood chip mulch for weed control (**see fact sheet**)
- 🌱 Don't plant near roadways
- 🌱 Use tap water or rainbarrels for watering vegetable gardens (**see fact sheet**)

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Email: lindacs@wsu.edu

URL: <http://www.theinformedgardener.com> (white papers on many of these myths)

Blog: <http://www.gardenprofessors.com>

Books: <http://www.sustainablelandscapesandgardens.com>

Facebook page: <http://www.facebook.com/TheGardenProfessors>

Facebook group: <https://www.facebook.com/groups/GardenProfessors/>

Publications: https://www.researchgate.net/profile/Linda_Chalker-Scott/publications

Backyard composting - <https://pubs.extension.wsu.edu/backyard-composting>

Rain barrels - <https://pubs.extension.wsu.edu/potential-contaminants-in-residential-rain-barrel-water-home-garden-series>

Raised beds - <https://pubs.extension.wsu.edu/raised-beds-deciding-if-they-benefit-your-vegetable-garden-home-garden-series>

Rubber mulch - <https://pubs.extension.wsu.edu/rubber-mulch-use-in-home-landscapes-home-garden-series>

Wood chip mulches - <https://pubs.extension.wsu.edu/using-arborist-wood-chips-as-a-landscape-mulch-home-garden-series>