

## Natter's Notes

# Herbicide in the Garden

### Jean R. Natter

Once again, herbicide damage rears its ugliness in home vegetable gardens. A recent new release from the Oregon Department of Agriculture (ODA) reported that clopyralid has been detected in composted manure (referred to as herbicide carryover) from McFarland's and Deans Innovations. (See local news report:

<https://www.einpresswire.com/article/519298724/oda-discovers-contaminated-soil-and-compost-after-receiving-complaints>)

Then, too, it's important for gardeners to avoid inadvertent drift from glyphosate (in RoundUp products) and 2,4-D (a broad-leaf herbicide).

Herbicide carryover is sneaky, a wolf in sheep's clothing. Some gardeners who add composted manure to their soil will be rudely surprised when they see their damaged vegetables. Here's the deal: Several active ingredients in commercial products (clopyralid and aminopyralid) persist for a year if not actively composted during that time. It's currently illegal to use such products in home gardens and landscapes. Their main use is agricultural, on grains and pastures. The rude encounter that may confront gardeners most often occurs from free manures shared by farmers who are unaware of what their pest companies applied to their pastures and grain fields. The herbicide on the grains passes through the gut and exits intact even while the livestock are unaffected. Thus, no one suspects mayhem is possible.

### The most sensitive plants

Of all the plants you might grow, tomatoes and grapes are super-sensitive to just a whiff of errant herbicide. Then, too, people want to know if they can safely eat the produce. Well, it's like this: That's not something the producer tests for; most likely they'll suggest you discard it.



*Glyphosate damage to plants (here, potato) during the growing season affects the newest cells first, this because glyphosate moves with the sugars. Look for yellowing of the new tip growth and at the base of expanding leaves. Glyphosate is the active ingredient in RoundUp and certain other herbicides. (Client image; 2020-06)*

### Rules to garden by

Inadvertent herbicide damage from any cause may be fatal or temporary. Drift during application is another possibility both during fall clean-up and/or weed-killing forays during the growing season.

A.) The best guideline for managing weeds: Kill 'em while they're young.

B.) Pull it when you see it. (In other words, don't tell yourself you'll get it later. And don't bother asking why I say that.)

C.) Remove it before it blooms. (Seeds are the next developmental stage!)

D.) Don't contribute to the abundant Soil Seed Bank. (If buds or flowers are present, don't throw it down with the thought "I'll pick it up later.")

### Test composted manure before you apply it

Do a simple bioassay (in several pots) before the compost is added to the garden. *continued* →

Or, if you've already added the composted manure, do the bioassay in the garden plot before you plant. (Easy instructions at <http://whatcom.wsu.edu/ag/aminopyralid/bioassay.html>)

### Responsible use of herbicides avoids off-target damage

Responsible use of herbicides will avoid inadvertent damage to off-target plants.

- 1.) Follow all label directions, among them guidelines for personal protection.
- 2.) Never spray any pesticide (such as an herbicide or insecticide) if the temperature is, or will exceed, 80F that day.
- 3.) If you use herbicides, *dedicate a sprayer* for that purpose, marking it boldly to avoid accidents. (In spite of a thorough cleaning of the sprayer and wand, a minute herbicide residue will damage ultra-sensitive plants, among them your tomatoes.)

**The Bottom Line:** Be an aware gardener!

### Resources

- "Gardeners often unaware of exposing tomatoes to herbicide" - <http://www.caes.uga.edu/newswire/story.html?storyid=4451>)
- Images of Herbicide carryover - <http://whatcom.wsu.edu/ag/aminopyralid/images.html>.
- "Landscape Plant Problems," (MISC0194; WSU) A book in all metro MG Offices. See the section titled "Common Herbicide Damage."



*During fall clean-up, sub-lethal doses of glyphosate are easily delivered to off-target plants via a light breeze and/or spray turbulence. In spring, you'll see clusters of narrow (stringy) growth, such as here on forsythia at the nodes. On roses, differentiate from rose rosette. (Client image; 2020-06)*



*A tomato with severe distortion from herbicide carryover. Such diagnoses require a detailed history of added mulch and/or amendments. Affected tissues may appear crystalline. The damage resembles that from 2,4-D but the leaf veins are not parallel. (Client image; 2017-06-20)*

← **2,4-D damage in grapes** reveals parallel veins and upward cupping. Rule out fanleaf virus; the vine will grow out of herbicide damage, but not virus. ("Reducing 2,4-D and Dicamba Risk" - <https://ohioline.osu.edu/factsheet/hyg-6105>)