Mapping Fumigation Buffers: a new online tool

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Resources include links to:

- General Resources (EPA Fumigation Toolkit, Soil Fumigation Manual)
- Buffer Zones (links through EPA)
- Soil Fumigant Management Plans (EPA and private sector sites)
- Fumigant Labels
- Emergency Preparedness
- Training and Certification
- General info from other crops
Fumigation Buffer Mapping Tool

• Why?
  – To help you determine where your buffers are when fumigating
  – To help you decide how big of an area to fumigate
  – To help you decide your type of fumigation
  – To let you see critical areas that may be included in your buffer zone
Beginning of tool

Map the buffer zones for a proposed fumigation treatment area. Click the 📚 to learn more about each step. Print the results by with the PRINT link in the upper right of the screen.

**Step 1: FIND THE TREATMENT AREA**

- ADDRESS
- POINT

Ex. 1111 A Avenue, Pullman, WA

**Step 2: DRAW THE TREATMENT AREA**

- DRAW
- ENTER CORNER COORDINATES

DRAW CLEAR

**Step 3: CALCULATE BUFFER DISTANCE**

Visit EPA's Buffer Zone Calculator
Map the buffer zones for a proposed fumigation treatment area. Click the "Help" button to learn more about each step. Print the results by with the PRINT link in the upper right of the screen.

**Step 1: Find the Treatment Area**
- **Address**
- **Point**

Enter 8153 Sunrise Road, Custer, WA (Ex. 1111A Avenue, Pullman, WA)

**Step 2: Draw the Treatment Area**
- **Draw**
- **Enter Corner Coordinates**

**Step 3: Calculate Buffer Distance**
Visit EPA's Buffer Zone Calculator
Zoom to where you can see your field

Map the buffer zones for a proposed fumigation treatment area. Click the button to learn more about each step. Print the results by with the PRINT link in the upper right of the screen.

**Step 1: Find the Treatment Area**
- Address: 8153 Sunrise Road, Custer, WA
  - (Ent. 1111 A Avenue, Pullman, WA)

**Step 2: Draw the Treatment Area**
- Draw
- Enter corner coordinates

**Step 3: Calculate Buffer Distance**
- Visit EPA's [Buffer Zone Calculator](#)
Draw your treatment area boundaries (by point, or by GPS Coordinates)
Calculate the Buffer Zone

Step 1: FIND THE TREATMENT AREA
Enter the buffer zone.

Step 2: DRAW THE TREATMENT AREA
Draw the treatment area.

Step 3: CALCULATE BUFFER DISTANCE
Visit EPA’s Buffer Zone Calculator.

Step 4: BUFFER DISTANCE
Enter the buffer zone.

EPA Soil Fumigant Buffer Zone Calculator

Terms of Use

EPA developed this soil fumigant buffer zone calculator as a tool to aid applicators, growers, enforcement personnel and others to determine the buffer zone distances required by soil fumigant labels. The certified applicator supervising the fumigant application must read the product label and verify that the inputs for the application methods, rates, block sizes, buffer zone credits, and calculated results are consistent with the specific product label that is going to be applied before the application begins. If there are any discrepancies between the results of the calculator and the label, the label must be followed.

Note: This application is best viewed in Internet Explorer 8.0 or higher.

Fumigant Selection

Select the Soil Fumigant to be Applied:

- Methyl Bromide with Chloropicrin
- Chloropicrin
- Metam Sodium or Metam Potassium
- Dazomet
- 1,3-Dichloropropene with Chloropicrin
- Dimethyl disulfide

Will the methyl bromide application take place in California?
- Yes
- No
Enter the Buffer length
Maps the buffer zones

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Step 3: CALCULATE BUFFER DISTANCE
Visit EPA's Buffer Zone Calculator

LEGEND
- Treatment area
- Inner Buffer
- Outer Buffer

Field area to be treated (12 acres)
True buffer zone (368 feet)
Difficult –to-evacuate area restrictions (1/4 mile)

Note: the buffer on this picture is for 12 acres, using Telone C-35 at a rate of 39 gal/ac with broadcast, un tarped. Gives a buffer of 368 feet, with gives a distance to manage difficult to evacuate areas of ¼ mile.
Do you need to reduce the buffer size?

Options for Reducing Buffer Size

Do you need to reduce your buffer size? Here are some options to try (decide which you will use and re-enter them into the EPA’s Buffer Zone Calculator:

- Fumigate a smaller area. This can be done by breaking up a field into multiple sections. Remember that for Buffer zones that overlap (i.e. between 2 neighboring farmers’ fields or 2 sections of one field) at least 12 hours must have passed between the end of one fumigant application and the beginning of the next.
- Use a high-barrier tarp
  (for more information at: EPA Tarp Credits Website – [http://www.tarpcredits.epa.gov](http://www.tarpcredits.epa.gov))
- Change the fumigant used:
  - Reduce the chloropicrin rate by using C-17 instead of C-35. Be aware that reducing the chloropicrin rate may reduce control of Phytophthora or other soil-borne disease problems.
  - Use a Metam Sodium or Metam Potassium product
  - Use 1,3-D by itself to eliminate the buffer altogether. Nematodes can be controlled this way, but control of soil-borne disease problems is likely to be weak.
  - Use the bed fumigation method. Bed fumigation refers to the practice of fumigating only the planting bed, as opposed to broadcast fumigation where the entire field is treated.

For more information about fumigation, see the resources page.
Reduced buffer size and reduced difficult-to-evacuate area

This time, used Metam Sodium (Vapam HL) with a broadcast shank application to have a buffer of 27’ which brings the difficult-to-evacuate area buffer down to 1/8 mile.

Other options would be to bed fumigate or fumigate one section at a time.
Print option, and available notes area

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Legend
- Treatment area
- Inner Buffer
- Outer Buffer

Notes:
- 12 ac field
- Vacam HL 70 gal/ac broadcast shank
- 27 foot buffer with 1/8 mile of difficult to evacuate area