

PHASE II SOIL FUMIGATION LABELING (2012) BUFFER ZONES



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PHASE II SOIL FUMIGATION

2

- **BUFFER ZONES FOR METHYL BROMIDE**
 - ✦ Labeling – In CA use CA regulatory BZ distances
 - ✦ Labeling “distance” = CA Inner BZ
 - Same distance but labeling restrictions
 - ✦ CA Outer BZ
 - Use Methyl Bromide Field Soil Fumigation Buffer Zone Determination (Rev. 3/13)

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3

- **BUFFER ZONES FOR ALL OTHER PHASE 2 SOIL FUMIGANTS**
 - ✦ **Compare labeling BZ with permit conditions**
 - Use the larger BZ
 - Use the labeling restrictions (unless permit is more restrictive)

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4

- RESIDENTIAL AREAS WITHIN BUFFER ZONES
 - ✦ Buffer zones may include residential areas *if* occupants provide written agreement to vacate
 - ✦ For methyl bromide products with <20 % chloropicrin, **air monitoring** inside residences is **required** after buffer zone period ends
 - ✦ Storage buildings in BZ must be unoccupied or share wall with an occupied structure

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5

- **OVERLAP OF BZS**
 - ✦ Time elapsed – earlier application completed until next application started. (12 hours)
- **AG AREAS NOT CONTROLLED BY OWNER/OPERATOR**
 - ✦ Need written agreement that provides that all persons will be kept out of BZ
- **ROADS/RIGHTS OF WAY**
 - ✦ Entry prohibited except for vehicle & bicycle transit
- **PUBLIC AREAS**
 - ✦ Written permission from responsible agency
 - ✦ Entry prohibited

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6

TRANSIT THROUGH BUFFER ZONES

- Allowed:
 - ✦ Vehicular and bicycle traffic on public and private roadways
- Prohibited:
 - ✦ Pedestrians
 - ✦ Bus stops or places where people wait for public transit



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7

BUFFER ZONE DURATION

- MBr regulations – 36 hours
- Metam permit conditions – 24 hours
- Labeling – 48 hours

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8

CALIFORNIA BZ CREDITS

- Chloropicrin & 1,3-D with chloropicrin only
 - ★ Tarp – 20 -60% (Under specific conditions, ENF-12-21 amended)
 - ★ Water treatment – 15% (only when approved by label)
 - ★ ~~Potassium thiosulfate treatment – 15% (NOT ALLOWED)~~
 - ★ ~~Tarp Symmetry system – 10% (NOT ALLOWED)~~
 - ★ ~~Soil organic content – 10 -30% (NOT ALLOWED)~~
 - ★ ~~Soil clay content – 10% (NOT ALLOWED)~~
 - ★ ~~Soil temperature – 10% (NOT ALLOWED)~~

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9

CA BUFFER ZONE CREDITS

Conditions apply – see ENF 12-21 (Amended)

Condition		% Reduction			
		MeBr	Chloropicrin	Metam	Dazomet
Use of high barrier tarp		30 or 60	30 or 60	15 or 30	NA
Organic matter content	> 1% -2%	10	10	10	10
	> 2% -3%	20	20	20	20
	> 3%	30	30	30	30
Clay content > 27%		10	10	10	10
Soil Temp	≤ 50 F (center pivot and shank)	NA	10	20	NA
	> 50-70 F (center pivot and shank)	NA	NA	10	NA
	> 50-70 F (drip irrigation, flood irrigation, and rotary tiller and spray blade applications)	NA	NA	10	NA
Symmetry application system, high barrier tarp, <100 lb ai/A		NA	40 or 70	NA	NA
Potassium thiosulfate seal with water applied over tarp		15	15	NA	NA
Water seal applied over tarp		NA	10	NA	NA
Max reduction		80	80	80	40

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10

CALIFORNIA BZ CREDITS

- Methyl Bromide

- ✦ **No** buffer zone reduction credits are allowed

Condition		% Reduction			
		MeBr	Chloropicrin	Metam	Dazomet
Use of high barrier tarp		30 or 60	30 or 60	15 or 30	NA
Organic matter content	> 1% -2%	10	10	10	10
	> 2% -3%	20	20	20	20
	> 3%	30	30	30	30
Clay content > 27%		10		10	10
Soil Temp	≤ 50 F (center pivot and shank)	NA		20	NA
	> 50-70 F (center pivot and shank)			10	NA
	> 50-70 F (drip irrigation, flood irrigation, and rotary tiller and spray blade application)			10	NA
Symmetry application system with barrier tarp, <100 lb ai/A		NA	40	NA	NA
Potassium thiosulfate seal with water applied over tarp		15	15	NA	NA
Water seal applied over tarp		NA	10	NA	NA
Max reduction		80	80	80	40

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11

DIFFICULT TO EVACUATE SITES

- BZ more than 300 feet – **1/4 mile**
- BZ 300 feet or less **1/8 mile**
- Metam Permit
 - ✦ No schools in session within $\frac{1}{2}$ mile
 - ✦ Some exceptions for applications of 5 acres or less for some methods
- MBR Regulation
 - ✦ No schools in session within 300 feet of Outer BZ

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12

EPA WEB BASED BUFFER ZONE CALCULATOR

- Tool to determine buffer zone distances
- Internet accessible
- Ability to save, retrieve, edit, and print
- Optional; no information collected by EPA
- May integrate into EPA's web-based program for FMPs

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13

The End

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