Soil fumigation alternative updates – Virginia & Selma

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Soil Fumigation – RED Labels

- **EPA's Registration Review schedule indicates that all soil fumigants (Chloropicrin, MBr, etc.) need to be re-evaluated with the process starting in 2013.**
- **On September 25 2013 EPA started the process with a 60 day comment period.**
- **Released a Work Plan and Biological and Economic Analysis Division (BEAD) for each soil fumigant under review.**
- **Includes: MBr, chloropicrin, metam / potassium sodium, 1,3, dichloropropene and dazomet.**

Soil Fumigation – Registration Review

- **The Work Plan describes what is know about each fumigant, acknowledges anticipated data and the information EPA needs to conduct the review.**
- **7 year process with an end date of revised labels released in 2020.**
- **Example of information needed for MBr**
  - **New terrestrial plant toxicity**
  - **Environmental chemistry**
  - **Honey bee vapor toxicity**
  - **Inhalation exposure studies**
  - **Ambient air monitoring studies**

Timeline - MBr

Table 5: Projected Methyl Bromide Registration Review Timeline	
Activities	**Estimated Date**
Opening the Docket	
Open Docket and 60-day Public Comment Period	2013 – September
Close Public Comment	2013 – November
Case Development	
Final Work Plan	2014 – February
Issue DCI	2014 April - June
Data Submission	2017 April - June
60-day Public Comment Period for Draft Risk Assessments[12]	2018 October - December
Registration Review Decision	
60-day Public Comment Period for Proposed Registration Review Decision	2019 April - June
Registration Review Decision and Begin Post-Decision Follow-up	2020
Total (years)	7

Game Plan

- MBIP – Methyl Bromide Industry Panel
- CMTF – Chloropicrin Manufactures Task Force
  - Working group pulling all stakeholders, growers, producers that were involved with the RED together.
  - Periodic & Timely Conference Calls
- SFNMC
  - Collect soil fumigant usage and soil fumigant concerns annually – 2015.
  - Compile and respond to requests from EPA as they appear on Federal Register.
  - Keep Advisory group informed.

Current Nursery Usage

Time of Fumigation	Number
Fall	18 nurseries
Spring	4 nurseries
Spring & Fall	3 nurseries
Average Acreage	26.5 acres

Fumigant MBr/Chl	Number	Rates
80/20	19	240 – 350 lbs / acre
67/33	3	400 lbs / acre
TriFecta	3	275 – 350 lbs / acre

Plastic	Number
TIF	98%
HDPE	1%
LDPE	1%

Fumigation Alternative Trials: Virginia, Flint River & Shellman Nurseries

Flint River Nursery

Table 2. Loblolly pine seedling characteristics at the Flint River GA Trial fumigation, December 2014.

Treatment	Seedling Characteristic					
	No. SqFt[1]	Sht Hgt (cm)	Sht Wgt (g)	Rt Wgt (g)	RCD (mm)	S:R Ratio[2]
MBr	34.2 a	34.4 a	1.79	0.35	3.07	0.164
420 lbs[z]	24.1 bc	25.6 b	1.86	0.37	3.55	0.168
415 lbs[yz]	31.2 ab	26.6 b	2.28	0.44	3.71	0.162
540 lbs[xyz]	22.3 c	32.8 a	2.75	0.56	3.91	0.170

[1]Treatment means within a column followed by a similar letter are not significantly different at alpha = 0.05.

[z] = 65% Compound XX, 35% Chloropicrin
[yz] = 40% Compound XX, 30% Chloropicrin, 30% Telone
[Xyz] = 50% Compound XX, 25% Chloropicrin, 25% AITC

Shellman Nursery

Table 2. Loblolly pine seedling characteristics at the Shellman GA Trial fumigation, December 2014.

Treatment[1]	Seedling Characteristic					
	No. SqFt[2]	Sht Hgt (cm)	Sht Wgt (g)	Rt Wgt (g)	RCD (mm)	S:R Ratio[2]
MBr	25.6	29.3	3.47	0.60	4.82	0.15
420 lbs[z]	29.1	30.2	3.66	0.68	5.01	0.16
415 lbs[yz]	26.7	30.6	4.21	0.75	5.47	0.15
540 lbs[xyz]	24.0	28.9	3.64	0.67	5.17	0.16

[1]Treatment means within a column followed by a similar letter are not significantly different at alpha = 0.05.

[z] = 65% Compound XX, 35% Chloropicrin
[yz] = 40% Compound XX, 30% Chloropicrin, 30% Telone
[Xyz] = 50% Compound XX, 25% Chloropicrin, 25% AITC

Virginia Nursery

Table 1. Loblolly pine seedling characteristics at the Virginia Department of Forestry fumigation trial, December 2014.

Treatment	Seedling Characteristic					
	No. SqFt[1]	Sht Hgt (cm)	Sht Wgt (g)	Rt Wgt (g)	RCD (mm)	S:R Ratio[2]
Check	30.0	20.4 a	1.34 a	0.42 a	3.77 a	0.243
MBr	24.5	24.4 b	1.84 b	0.62 b	4.67 b	0.250
Tri 400 lb	27.8	24.5 b	1.88 b	0.64 b	4.72 b	0.254
XX 300 lb	29.2	23.4 b	1.72 b	0.55 b	4.45 b	0.242
XX 400 lb	28.9	23.4 b	1.74 b	0.56 b	4.53 b	0.246
XX 500 lb	29.1	23.9 b	1.72 b	0.59 b	4.47 b	0.256

[1]Treatment means within a column followed by a similar letter are not significantly different at alpha = 0.05.

[2]S:R Ratio is the weight of the root biomass in relation to the entire seedling biomass. Target S:R ration is > 0.27.


Untreated
Control


New
300


1 2 3 4 5 6 7 8
BLOCK 2
BLOCK 1
1 2 3 4 5 6 7 8
© 2015 Google
Google earth
1993
Imagery Date: 5/16/2014 31°30'31.64" N 81°51'54.43" W elev 53 ft eye alt 1177 ft