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Southern Forest Nursery Management Cooperative						
Annual Soil Fumigation Survey						
for fumigation completed in 2021						
(data collected in 2022)						
Today's Date:						
Company or State Forestry Org:						
Nursery:						
County:						
State:						
Fumigant	Fumigation: Spring or Fall	Mixture/Rate	Plastic Type	Acreage	Days under Plastic	
MSU/Cooperator		80/20 @ 300 lb	TW	12	7	
Tobacco		100%w	TW	4	10	
Comments/Remarks						

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Participant Code	Age	Sex	Height	Weight	BMI	Waist	Waist Circum	Hypertension Diagnosis	Diabetes Diagnosis	Current	2007				2008				2009				2010			
											SBP	DBP	SBP	DBP	SBP	DBP	SBP	DBP	SBP	DBP	SBP	DBP	SBP	DBP		
Participant 1	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 2	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 3	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 4	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 5	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 6	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 7	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 8	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 9	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 10	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 11	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 12	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 13	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 14	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 15	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 16	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 17	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 18	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 19	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 20	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 21	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 22	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 23	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 24	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 25	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 26	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 27	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 28	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 29	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 30	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 31	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 32	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 33	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 34	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 35	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 36	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 37	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 38	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 39	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 40	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 41	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 42	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 43	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 44	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 45	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 46	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 47	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 48	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 49	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 50	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 51	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 52	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 53	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 54	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 55	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 56	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 57	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 58	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 59	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		
Participant 60	45.00	M	165.00	75.00	27.27	90.00	90.00	0	0	0	140	90	140	90	140	90	140	90	140	90	140	90	140	90		

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### Nursery Soil Fumigant Usage: 2018-2021

Time of Fumigation	2021 Data	2020 Data	2019 Data	2018 Data
Fall	21 nurseries	20 nurseries	23 nurseries	23 nurseries
Spring	5 nurseries	7 nurseries	7 nurseries	9 nurseries
Avg Acreage	21 acres	22 acres	29 acres	20 acres
Total Acreage	562 acres	690 acres	655 acres	639 acres

Fumigant MBr/Chl	2021	2020	2019	2018	Rates
98/2	7	7	2	0	300 - 400 lbs / acre
80/20	19	20	24	27	240 - 450 lbs / acre
67/33	2	3	3	4	350 - 400 lbs / acre
TriFecta / Telone / Pic +	0	1	1	1	275 - 350 lbs / acre

Plastic	2021	2020	2019	2018
TIF	86%	86%	88%	87%
HDPE	3%	11%	6%	10%
LDPE	11%	3%	6%	3%

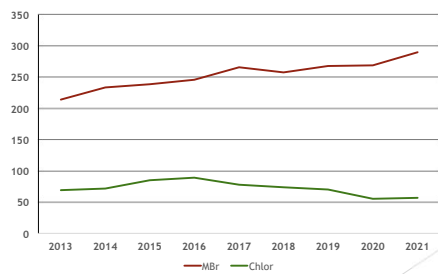
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### Current Nursery AI Usage: 2013-2021

	Active Ingredient lbs/acre Southwide US				
	MBr	Chlor	DMDS	Telone	Other
2013	214	69	170	77	0
2014	234	72	162	79	340
2015	239	85	220	107	353
2016	246	89	0	15	0
2017	266	78	0	0	0
2018	258	74	0	96	0
2019	268	70	0	96	0
2020	269	55	0	96	0
2021	290	57	0	0	0

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### AI usage



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## Current Nursery Usage: 2013-2021

	Total Soil Fumigant Used lbs/Year				
	MBr	Chlor	DMDs	Telone	Other
2013	118,532	36,553	1595	3180	0
2014	130,101	40,043	3363	4459	1020
2015	109,660	37,776	2200	6003	3585
2016	124,716	44,952	0	7620	0
2017	188,755	50,054	0	0	0
2018	206,448	43,129	0	96	0
2019	238,598	47,323	0	96	0
2020	186,036	38,100	0	403	0
2021	162,737	32,278	0	0	0

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## EPA / USDA / MeBTOC

- ▶ No contacts from APHIS, USDA, EPA or MeBTOC concerning regarding Soil Fumigation
  - ▶ The current Administration and Cabinet Leaders will have yet to indicated any changes in labels or Re-registration of the soil fumigants.
  - ▶ There were four specific requests for data on pesticide use from USDA-APHIS and EPA in seedling production systems.
    - ▶ Ronstar Flo (oxadiazon)
    - ▶ PTM (fipronil)
    - ▶ Goal (oxyfluorfen)
    - ▶ Proline (prothioconazole)
  - ▶ Working with members and cooperators, the Nursery Cooperative submitted letters to the agencies indicating the use of these compounds in nurseries and the importance to the industry.
  - ▶ Those that make decisions on pesticide use are now up to date with how seedling production would be affected without these important pesticides.

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