

NEMATICIDE TRIAL

2021 RESULTS AND 2022 UPDATE

SFNMC 2022 ADVISORY MEETING

NOVEMBER 2, 2022

2021 NEMATOCIDE TRIAL RESULTS

- Purpose is to **extend** fumigation, not replace
- Second product with Broadform™
(fluopyram 21.4% + trifloxystrobin 24.4%)
- At ArborGen Bullard TX nursery (same as 2020 trial)
- Nursery personnel did fieldwork
- Applied in nematode hot spot in field last fumigated in 2019
- 2 treatments: 0 sprays - control
3 sprays - 8 oz/ac at sowing + 11 oz/ac 21 DAT + 8 oz/ac 21 DAT
(max. allowable per acre per year = 27.1 oz.)



2021 Bareroot loblolly pine seedling characteristics treated with fluopyram (Broadform™)

| Treatment | June 2021 density/ft ² | Dec 2021 density/ft ² | Shoot height (cm) ¹ | Root collar diameter (mm) ¹ | Shoot dry weight (g) | Root dry weight (g) |
|------------------------------|--------------------------------------|-------------------------------------|-----------------------------------|--|-------------------------|------------------------|
| Control | 25.3 ± 0.80 | 29.2 ± 1.09 | 24.7 ± 0.93 | 5.36 ± 0.06 | 3.81 ± 0.08 | 0.94 ± 0.03 |
| 3 applications Broadform™ | 26.0 ± 0.67 | 27.9 ± 0.80 | 22.4 ± 0.53 | 5.09 ± 0.07 | 3.58 ± 0.11 | 0.96 ± 0.09 |
| <i>p>f</i> | 0.528 | 0.328 | 0.018 | 0.014 | 0.166 | 0.629 |

¹**Bold** means within a seedling characteristic indicate significant treatment difference from that of the nontreated control at that rate according to Dunnett's T-test at alpha = 0.05.

2021 Nematode populations in control plots and Broadform™-treated plots

| Soil Sampling Date | CONTROL mean number of nematodes per 100 cc soil sample per plot | TREATMENT mean number of nematodes per 100 cc soil sample per plot |
|--------------------|--|--|
| 5/12/2021 | 38.4 | 47.8 |
| 6/2/2021 | 26.2 | 30.2 |
| 6/21/2021 | 10.0 | 12.2 |
| 8/3/2021 | 10.4 | 29.3 |
| 9/22/2021 | 16.2 | 21.3 |
| Mean | 20.2 | 28.2 |

*Nematode pressure was not high enough in 2021 to adequately test the product's efficacy on nematode control



RESEARCH REPORT 22-02

A SECOND TRIAL TO DETERMINE THE EFFECT OF MULTIPLE APPLICATIONS
OF A NON-FUMIGANT NEMATOCIDE (FLUOPYRAM) ON NEMATODE
CONTROL AND LOBLOLLY PINE SEEDLING CHARACTERISTICS

by
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2022 NEMATICIDE TRIAL UPDATE



- Third trial - installed at IFCO Jesup, GA Nursery in loblolly and slash pine
- 2 treatments: 0 sprays – control
3 sprays - 9 oz/ac 14 days after sow
+ 9 oz/ac 14 DAT
+ 9 oz/ac 14 DAT

| 2022 Nematode data obtained from 6 soil sampling dates (May – August) in pine study areas | | | | |
|---|---------------------|---------|------------------|----------|
| | Loblolly study area | | Slash study area | |
| | C | T | C | T |
| Mean no. nematodes/100 cc soil sample | 118 | 93 | 202 | 228 |
| Range of nematode counts/100 cc soil | 6 - 606 | 2 - 754 | 8 - 1368 | 10 - 830 |

- Seedling samples to be collected in November

QUESTIONS?

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