# CONTAINER POST-EMERGENT HERBICIDE TRIAL 2021 INSTALLATION

SFNMC 2022 CONTACT MEETING JULY 18, 2022



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#### 2021 CONTAINER POST-EMERGENT HERBICIDE TRIAL

- Trial proposed by container nursery operator to control weeds appearing during the growing season – requires an over-the-top spray application
- First SFNMC post-emergent herbicide trial in CONTAINERS
- Selected Ronstar®Flo for use because of successful testing in containers as a pre-emergent (at sowing) herbicide in 2017, 2018, and 2019, and target weed listed on label
- Ronstar®Flo label reads 'pre-emergence herbicide' translating to applications made prior to germination of WEEDS

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## 2021 CONTAINER POST-EMERGENT HERBICIDE TRIAL

- One rate: 40 oz/ac
- Target weed was oxalis previous growing season had appeared at 9-10 weeks post-sowing
- Spray applications made on: 8-week-old loblolly
   8-week-old slash
   9-week-old longleaf
   10-week-old longlear



• Installed at Meeks' Farm and Nursery

| tr   | 2021<br>eated with 4    |                          | zed <b>loblolly</b><br>exadiazon (R |                                 |                         |                        | ng |  |
|--|-------------------------|--------------------------|-------------------------------------|---------------------------------|-------------------------|------------------------|----|--|
|  | Treatment               | Percent fill<br>per tray | Shoot height (cm)                   | Root collar<br>diameter<br>(mm) | Shoot dry<br>weight (g) | Plug dry<br>weight (g) |    |  |
|  | Control<br>0 oz/ac      | 93.8 ± 0.46              | 45.5 ± 0.28                         | 4.44 ± 0.06                     | 3.02 ± 0.07             | 12.24 ± 0.17           |    |  |
|  | Ronstar®Flo<br>40 oz/ac | 95.3 ± 0.88              | 45.3 ± 0.38                         | 4.42 ± 0.06                     | 2.97 ± 0.09             | 12.10 ± 0.10           |    |  |
|  | p>f                     | 0.128                    | 0.669                               | 0.823                           | 0.647                   | 0.502                  |    |  |
| No statistical differences between treatments in any characteristic measured                                 |                         |                          |                                     |                                 |                         |                        |    |  |
| Loblolly pine seedlings in  May 2021 (at spraying) and September 2021  (2 months prior to sample collection) |                         |                          |                                     |                                 |                         |                        |    |  |
|  |                         | 111                      | 111                                 |                                 | THE                     | -                      |    |  |

| tı      | 202<br>reated with 4    |                          | rized <b>slash <sub>l</sub></b><br>oxadiazon (R                   |                                 |                         |                        | ng         |
|---------|-------------------------|--------------------------|---|---------------------------------|-------------------------|------------------------|------------|
|         | Treatment               | Percent fill<br>per tray | Shoot height<br>(cm)  | Root collar<br>diameter<br>(mm) | Shoot dry<br>weight (g) | Plug dry<br>weight (g) |            |
|         | Control<br>0 oz/ac      | 88.7 ± 0.95              | 41.7 ± 0.74   | 4.78 ± 0.06                     | 3.65 ± 0.10             | 12.72 ± 0.11           |            |
|         | Ronstar®Flo<br>40 oz/ac | 89.9 ± 0.84              | 45.8 ± 2.87   | 4.74 ± 0.06                     | 3.57 ± 0.10             | 12.50 ± 0.15           |            |
|         | p>f                     | 0.485                    | 0.166   | 0.652                           | 0.675                   | 0.323                  |            |
|         | No statis               | tical difference         | es between tre  | atments in any                  | characteristic          | measured               |            |
|         |                         |                          | Slash pine see<br>ay 2021 (at spr<br>September<br>ths prior to sa | aying) and<br>2021              |                         | MIN                    |            |
| 1977/19 | 15/1/1/                 | 1111                     | 1. 1. 1.  |                                 | 1411                    | 1 / /                  | NEW THURST |

|                         |             | zed longlea<br>oxadiazon (F<br>Shoot height<br>(cm)   |                            |                      | Plug dry<br>weight (g) |
|-------------------------|-------------|---|----------------------------|----------------------|------------------------|
| Control<br>0 oz/ac      | 83.1 ± 1.65 | 39.6 ± 0.36   | 8.48 ± 0.11                | 4.28 ± 0.11          | 12.17 ± 0.08           |
| Ronstar®Flo<br>40 oz/ac | 81.4 ± 1.34 | 39.2 ± 0.43   | 8.56 ± 0.23                | 4.50 ± 0.16          | 12.89 ± 0.20           |
| p>f                     | 0.403       | 0.563   | 0.743                      | 0.309                | 0.013                  |
| Only s                  |             | ence between s<br>Longleaf pine so<br>1ay 2021 (at sp | eedlings in<br>raying) and | s in <b>plug dry</b> | weights                |
| 2.7.9.7.7               |             | September   | 2021                       | nn)                  |                        |

| tr |                         |                          | ed <b>longleaf</b><br>kadiazon (Ro                             |                                 |                         | ristics<br>s post-sowing |    |
|----|-------------------------|--------------------------|--|---------------------------------|-------------------------|--------------------------|----|
|    | Treatment               | Percent fill<br>per tray | Shoot height<br>(cm)   | Root collar<br>diameter<br>(mm) | Shoot dry<br>weight (g) | Plug dry<br>weight (g)   |    |
|    | Control<br>0 oz/ac      | 86.2 ± 1.52              | 40.6 ± 0.50  | 9.24 ± 0.29                     | 4.48 ± 0.14             | 12.98 ± 0.12             |    |
|    | Ronstar®Flo<br>40 oz/ac | 85.0 ± 1.22              | 40.1 ± 0.56  | 8.84 ± 0.12                     | 4.35 ± 0.14             | 12.72 ± 0.15             |    |
|    | p>f                     | 0.585                    | 0.545  | 0.195                           | 0.515                   | 0.207                    |    |
|    | No statis               | tical difference         | s between trea   | atments in any                  | characteristic          | measured                 |    |
|    |                         | (2 m                     | Longleaf pine<br>May 2021 (at s<br>September<br>onths prior to | spraying) and<br>er 2021 ——     | ion)                    |                          | W. |
|    |                         | 1111                     | 171  |                                 | 111                     | 1. 1. 1. 1. 1.           |    |

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## 2021 CONTAINER POST-EMERGENT HERBICIDE TRIAL

- Fortunately for grower, 2021 season had very few weeds
- Unfortunately for trial, 2021 season had very few weeds unable to quantify efficacy of post-emergent herbicide application on weed control

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#### 2022 CONTAINER POST-EMERGENT HERBICIDE TRIAL

- Second trial installed at Meeks' Farm and Nursery
- 2 treatments: control – 0 oz/ac treatment – 40 oz/ac
- Spray applications made on: 7-week-old longleaf
   8-week-old longleaf
- As of July 2022, no visible damage to seedlings has been reported



