

## **UW – Madison Weed Science Renz Lab**

# **How well do formulations of florypyrauxifen (ProClova, GF-4574, DuraCor, and Loyant) control burdock in Pastures?**

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### **Objective:**

Evaluate the efficacy of ProClova (2,4-D amine + florypyrauxifen) and GF-4574 (2,4-D choline + florypyrauxifen) on burdock (*Arctium sp.*) as compared to DuraCor (aminopyralid + florypyrauxifen), Loyant (florypyrauxifen), and Enlist One (2,4-D choline) and determine if differences in clover injury exist.

### **Summary:**

At 26 days after treatment (DAT) and prior to the first grazing interval, burdock injury was highest with high rates of GF-4574 and ProClova (75-84%) and lowest with Enlist One, Loyant, and low rate of GF-4574 (42-50%). All treatments provided acceptable burdock control (82-100%) prior to the second grazing interval at 81 DAT except for Enlist One, Loyant, and the low rate of GF-4574 (26-54%). By fall (136 DAT), all treatments containing florypyrauxifen provided  $\geq 90\%$  visual control of burdock, except for Enlist One and the lowest rate of GF-4574 (78-80% control).

Despite differences in burdock control, populations were nearly eradicated in the fall by all treatments (0.01 – 0.06 plants/m<sup>2</sup>) compared to pre-treatment densities (0.84 – 1.85 plants/m<sup>2</sup>). These reductions occurred most slowly with Loyant and Enlist One, which consistently had higher burdock density than other treatments until 136 DAT.

Although red and white clover was impacted by all treatments, the most severe impacts came from DuraCor (0.5% and 1% cover at 136 DAT, respectively). For all other treatments at 136

DAT, red clover cover was 2-8% and white clover cover was 8-16%, down from a combined red and white clover cover of 18-30% prior to application.

Results suggest that formulations of florpyrauxifen provided suppression of burdock through the growing season, and all formulations except the lowest rate of GF-4574 gave high levels of burdock control by fall in the year of application. [While previous research](#) has documented removal of red clover and dominance of white clover in pastures treated with florpyrauxifen, this study found both clover populations present throughout the study period. This suggests that red clover may not always be eliminated by applications of florpyrauxifen.

| Herbicide Treatments |                                       |                                                              |
|----------------------|---------------------------------------|--------------------------------------------------------------|
| Treatment Number     | Treatment                             | Rate                                                         |
| 1                    | ProClova<br>methylated seed oil (MSO) | 24 fluid ounces per acre (fl oz/A)<br>1% volume/volume (v/v) |
| 2                    | GF-4574<br>MSO                        | 28 fl oz/A<br>1% v/v                                         |
| 3                    | GF-4574<br>Activator 90 (A90)         | 28 fl oz/A<br>0.25% v/v                                      |
| 4                    | GF-4574<br>MSO                        | 24 fl oz/A<br>1% v/v                                         |
| 5                    | ProClova<br>MSO                       | 48 fl oz/A<br>1% v/v                                         |
| 6                    | GF-4574<br>MSO                        | 56 fl oz/A<br>1% v/v                                         |
| 7                    | GF-4574<br>A90                        | 56 fl oz/A<br>0.25% v/v                                      |
| 8                    | GF-4574<br>MSO                        | 48 fl oz/A<br>1% v/v                                         |
| 9                    | DuraCor<br>A90                        | 12 fl oz/A<br>0.25% v/v                                      |
| 10                   | Loyant<br>MSO                         | 4.9 fl oz/A<br>1% v/v                                        |
| 11                   | Enlist One<br>MSO                     | 16.8 fl oz/A<br>1% v/v                                       |
| 12                   | Loyant<br>Enlist One<br>MSO           | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v                        |



### Herbicide Application

|                              |                                                      |
|------------------------------|------------------------------------------------------|
| <b>Date</b>                  | May 15 <sup>th</sup> , 2020, 10:30 – 11:45am         |
| <b>Equipment</b>             | CO2 pressurized 10-foot boom sprayer (20 GPA)        |
| <b>Nozzles &amp; spacing</b> | Eight TeeJet 11002VS XR Nozzles with 15-inch spacing |

### Weather Data

|                                                                                     |                                                    |
|-------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>Weather Station</b>                                                              | <a href="#">KWIMADIS214</a>                        |
| <b>Temperature</b>                                                                  | 66 - 68°F                                          |
| <b>Wind Speed and Direction</b>                                                     | 2 mph                                              |
| <b>Relative Humidity</b>                                                            | 67 - 73%                                           |
| <b>Cloud Cover</b>                                                                  | 10%                                                |
| <b>Previous Rain Event Within 48 Hours</b>                                          | May 14 <sup>th</sup> , 2020, 11:30pm – 0.59 inches |
| <b>When <math>\geq 0.25</math> inches of precipitation occurred after treatment</b> | May 17 <sup>th</sup> , 2020, 9pm – 1.4 inches      |

### Grazing Interval Dates

|                     |                               |
|---------------------|-------------------------------|
| <b>First Graze</b>  | June 10 <sup>th</sup> , 2020  |
| <b>Second Graze</b> | August 4 <sup>th</sup> , 2020 |

### Research Plot Information

|                             |                                                 |
|-----------------------------|-------------------------------------------------|
| <b>Plot Dimensions</b>      | 10 feet by 25 feet (250 square feet)            |
| <b>Design</b>               | Randomized Complete Block, 4 blocks             |
| <b>Soil Type</b>            | McHenry silt loam                               |
| <b>Soil Characteristics</b> | 18% clay, 0.6% organic matter, 7.4 pH, 9% slope |

### Plants Present at Application – Developmental Stage

| <b>Species</b>                             | <b>Average Height (in)</b> | <b>Phenological Stage</b>          |
|--------------------------------------------|----------------------------|------------------------------------|
| burdock ( <i>Articum sp.</i> )             | 8                          | vegetative                         |
| clover ( <i>Trifolium sp.</i> )            | 7                          | vegetative                         |
| dandelion ( <i>Taraxacum officinale</i> )  | 5                          | 50% flowering,<br>50% seed present |
| orchardgrass ( <i>Dactylis glomerata</i> ) | 22                         | vegetative                         |

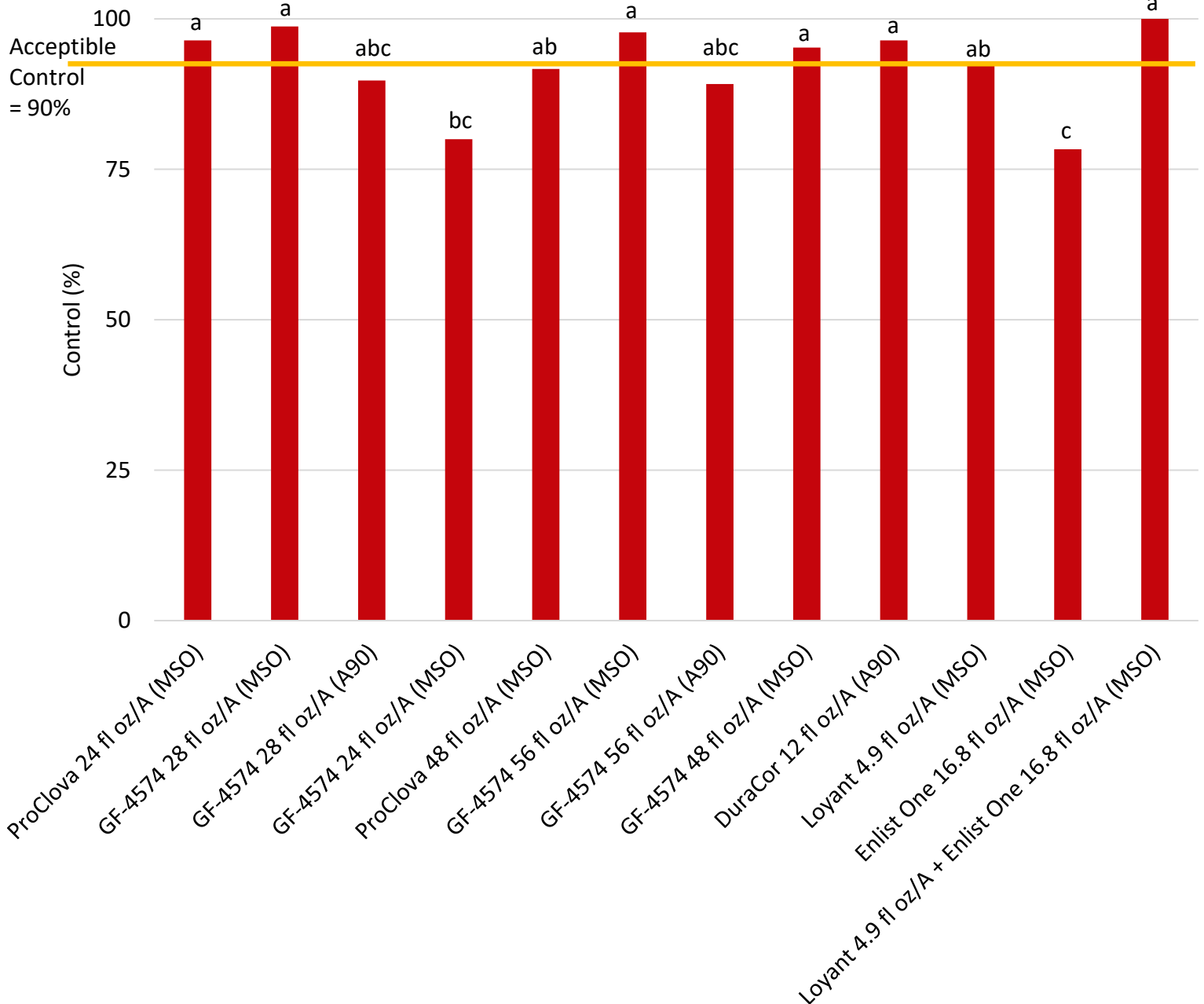
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## Results:

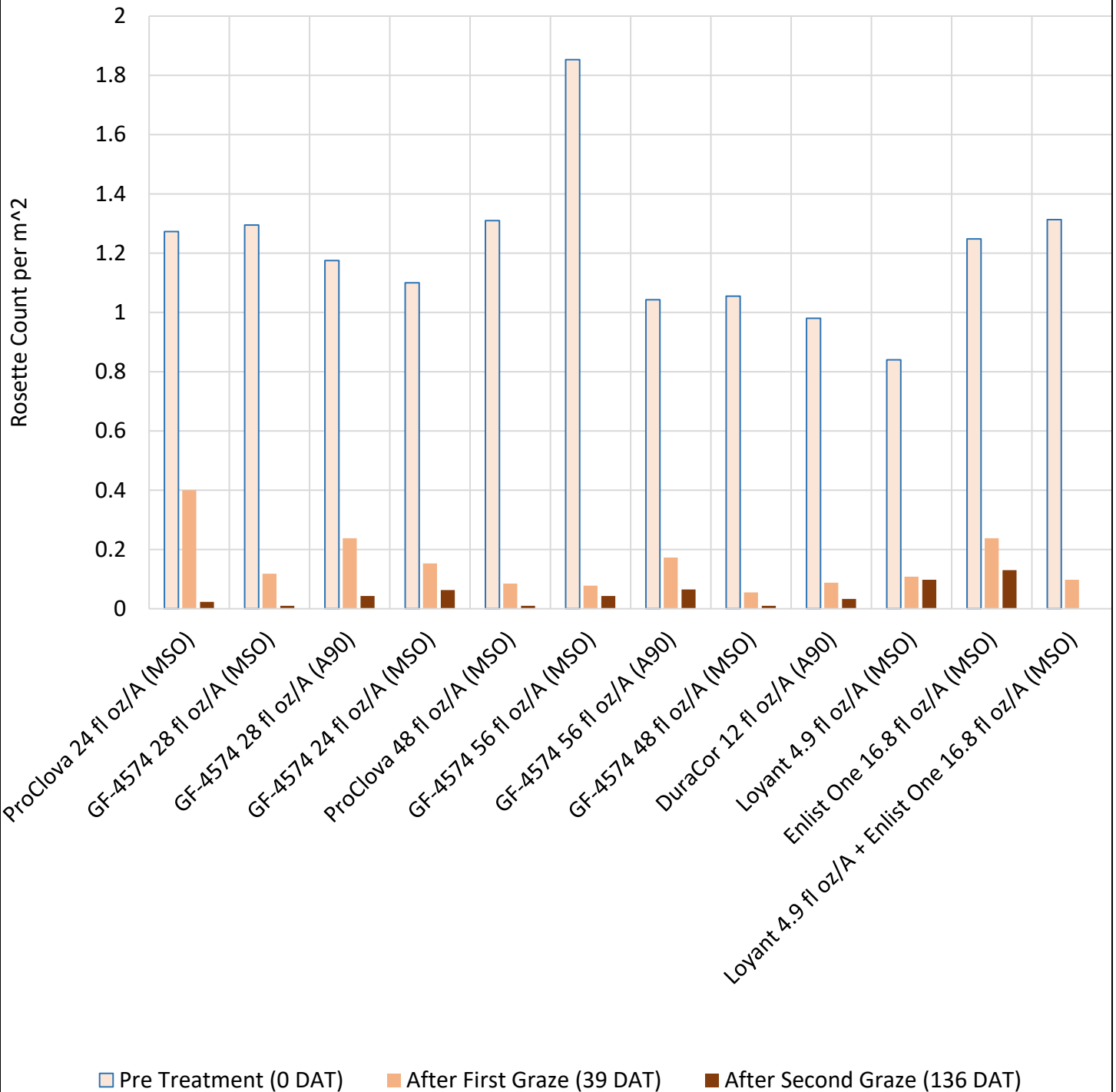
### Burdock Control at End of Season (136 DAT)



Bars labelled with the same letter do not significantly differ (P=0.05, LSD).



### Burdock Density over Time



### Pre Treatment Rating – May 15<sup>th</sup>, 2020

| Trt. No.                                 | Treatment             | Rate                                  | Burdock Density (#/m <sup>2</sup> ) | Burdock Cover (%) | Dandelion Cover (%) | Other Broadleaf Cover (%) | Clover Cover (%) | Bareground /Litter Cover (%) | Grass Cover (%) |
|------------------------------------------|-----------------------|---------------------------------------|-------------------------------------|-------------------|---------------------|---------------------------|------------------|------------------------------|-----------------|
| 1                                        | ProClova MSO          | 24 fl oz/A<br>1% v/v                  | 1.27 -                              | 16 -              | 2 -                 | 2 ab                      | 25 -             | 3 -                          | 52 -            |
| 2                                        | GF-4574 MSO           | 28 fl oz/A<br>1% v/v                  | 1.30 -                              | 12 -              | 2 -                 | 0.5 c                     | 22 -             | 3 -                          | 58 -            |
| 3                                        | GF-4574 A90           | 28 fl oz/A<br>0.25% v/v               | 1.18 -                              | 9 -               | 2 -                 | 0.8 bc                    | 24 -             | 4 -                          | 60 -            |
| 4                                        | GF-4574 MSO           | 24 fl oz/A<br>1% v/v                  | 1.10 -                              | 8 -               | 4 -                 | 2.3 a                     | 30 -             | 2 -                          | 52 -            |
| 5                                        | ProClova MSO          | 48 fl oz/A<br>1% v/v                  | 1.31 -                              | 8 -               | 2 -                 | 1 bc                      | 18 -             | 5 -                          | 63 -            |
| 6                                        | GF-4574 MSO           | 56 fl oz/A<br>1% v/v                  | 1.85 -                              | 14 -              | 3 -                 | 1 bc                      | 25 -             | 2 -                          | 54 -            |
| 7                                        | GF-4574 A90           | 56 fl oz/A<br>0.25% v/v               | 1.04 -                              | 11 -              | 4 -                 | 1 bc                      | 32 -             | 2 -                          | 48 -            |
| 8                                        | GF-4574 MSO           | 48 fl oz/A<br>1% v/v                  | 1.06 -                              | 7 -               | 3 -                 | 1 bc                      | 28 -             | 3 -                          | 56 -            |
| 9                                        | DuraCor A90           | 12 fl oz/A<br>0.25% v/v               | 0.98 -                              | 11 -              | 4 -                 | 1 bc                      | 32 -             | 2 -                          | 48 -            |
| 10                                       | Loyant MSO            | 4.9 fl oz/A<br>1% v/v                 | 0.84 -                              | 8 -               | 3 -                 | 2 ab                      | 26 -             | 4 -                          | 56 -            |
| 11                                       | Enlist One MSO        | 16.8 fl oz/A<br>1% v/v                | 1.24 -                              | 11 -              | 4 -                 | 2 ab                      | 25 -             | 3 -                          | 56 -            |
| 12                                       | Loyant Enlist One MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 1.31 -                              | 10 -              | 4 -                 | 1 bc                      | 28 -             | 2 -                          | 54 -            |
| <b>Statistics<sup>1</sup></b>            |                       |                                       |                                     |                   |                     |                           |                  |                              |                 |
| Least Significant Difference (LSD) P=.05 |                       |                                       | 0.8995                              | 8.74              | 1.49                | 0.78                      | 8.45             | 2.24                         | 11.61           |
| Standard Deviation                       |                       |                                       | 0.6253                              | 6.07              | 1.03                | 0.54                      | 5.87             | 1.55                         | 8.07            |
| Coefficient of Variation (CV)            |                       |                                       | 51.81                               | 56.49             | 31.98               | 43.3                      | 22.11            | 48.45                        | 14.75           |
| Treatment Prob(F)                        |                       |                                       | 0.7714                              | 0.7606            | 0.6126              | 0.0154                    | 0.0685           | 0.2511                       | 0.3014          |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

<sup>1</sup> All statistical analyses were conducted in ARM software and assumptions of ANOVA were not evaluated.

### 6 DAT – May 21<sup>st</sup>, 2020

| Trt. No.           | Treatment             | Rate                                  | Burdock Injury (%) | Red Clover Injury (%) | White Clover Injury (%) | Dandelion Injury (%) |
|--------------------|-----------------------|---------------------------------------|--------------------|-----------------------|-------------------------|----------------------|
| 1                  | ProClova MSO          | 24 fl oz/A<br>1% v/v                  | 26 -               | 32 abc                | 28 -                    | 46 -                 |
| 2                  | GF-4574 MSO           | 28 fl oz/A<br>1% v/v                  | 40 -               | 35 ab                 | 25 -                    | 48 -                 |
| 3                  | GF-4574 A90           | 28 fl oz/A<br>0.25% v/v               | 31 -               | 26 cd                 | 26 -                    | 34 -                 |
| 4                  | GF-4574 MSO           | 24 fl oz/A<br>1% v/v                  | 31 -               | 28 bcd                | 26 -                    | 48 -                 |
| 5                  | ProClova MSO          | 48 fl oz/A<br>1% v/v                  | 44 -               | 36 ab                 | 32 -                    | 50 -                 |
| 6                  | GF-4574 MSO           | 56 fl oz/A<br>1% v/v                  | 38 -               | 32 abc                | 25 -                    | 45 -                 |
| 7                  | GF-4574 A90           | 56 fl oz/A<br>0.25% v/v               | 38 -               | 32 abc                | 28 -                    | 42 -                 |
| 8                  | GF-4574 MSO           | 48 fl oz/A<br>1% v/v                  | 36 -               | 38 a                  | 32 -                    | 45 -                 |
| 9                  | DuraCor A90           | 12 fl oz/A<br>0.25% v/v               | 36 -               | 31 a-d                | 25 -                    | 41 -                 |
| 10                 | Loyant MSO            | 4.9 fl oz/A<br>1% v/v                 | 35 -               | 31 a-d                | 28 -                    | 41 -                 |
| 11                 | Enlist One MSO        | 16.8 fl oz/A<br>1% v/v                | 28 -               | 28 bcd                | 20 -                    | 38 -                 |
| 12                 | Loyant Enlist One MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 34 -               | 24 d                  | 28 -                    | 34 -                 |
| <b>Statistics</b>  |                       |                                       |                    |                       |                         |                      |
| LSD P=.05          |                       |                                       | 12.84              | 7.6                   | 9.26                    | 13.75                |
| Standard Deviation |                       |                                       | 8.92               | 5.28                  | 6.43                    | 9.56                 |
| CV                 |                       |                                       | 25.65              | 16.85                 | 23.71                   | 22.38                |
| Treatment Prob(F)  |                       |                                       | 0.3271             | 0.032                 | 0.3745                  | 0.2656               |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).





### 12 DAT – May 27<sup>th</sup>, 2020 (1/2)

| Trt. No.           | Treatment                   | Rate                                  | Burdock Injury (%) | Red Clover Injury (%) | White Clover Injury (%) |
|--------------------|-----------------------------|---------------------------------------|--------------------|-----------------------|-------------------------|
| 1                  | ProClova MSO                | 24 fl oz/A<br>1% v/v                  | 38 bc              | 40 b                  | 23 -                    |
| 2                  | GF-4574 MSO                 | 28 fl oz/A<br>1% v/v                  | 38 bc              | 35 bc                 | 25 -                    |
| 3                  | GF-4574 A90                 | 28 fl oz/A<br>0.25% v/v               | 38 bc              | 35 bc                 | 27 -                    |
| 4                  | GF-4574 MSO                 | 24 fl oz/A<br>1% v/v                  | 33 cd              | 18 d                  | 20 -                    |
| 5                  | ProClova MSO                | 48 fl oz/A<br>1% v/v                  | 40 bc              | 43 b                  | 30 -                    |
| 6                  | GF-4574 MSO                 | 56 fl oz/A<br>1% v/v                  | 40 bc              | 45 b                  | 23 -                    |
| 7                  | GF-4574 A90                 | 56 fl oz/A<br>0.25% v/v               | 38 bc              | 45 b                  | 23 -                    |
| 8                  | GF-4574 MSO                 | 48 fl oz/A<br>1% v/v                  | 43 ab              | 40 b                  | 25 -                    |
| 9                  | DuraCor A90                 | 12 fl oz/A<br>0.25% v/v               | 53 a               | 73 a                  | 10 -                    |
| 10                 | Loyant MSO                  | 4.9 fl oz/A<br>1% v/v                 | 30 cd              | 28 cd                 | 17 -                    |
| 11                 | Enlist One MSO              | 16.8 fl oz/A<br>1% v/v                | 25 d               | 25 cd                 | 13 -                    |
| 12                 | Loyant<br>Enlist One<br>MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 38 bc              | 35 bc                 | 23 -                    |
| <b>Statistics</b>  |                             |                                       |                    |                       |                         |
| LSD P=.05          |                             |                                       | 10.5               | 12.4                  | 14                      |
| Standard Deviation |                             |                                       | 7.3                | 8.6                   | 9.5                     |
| CV                 |                             |                                       | 19.55              | 22.48                 | 42.86                   |
| Treatment Prob(F)  |                             |                                       | 0.0034             | 0.0001                | 0.6873                  |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

**12 DAT – May 27<sup>th</sup>, 2020 (2/2)**

| Trt. No.           | Treatment                   | Rate                                  | Burdock Cover (%) | Other Broadleaf Cover (%) | Clover Cover (%) | Bareground/ Litter Cover (%) | Grass Cover (%) |
|--------------------|-----------------------------|---------------------------------------|-------------------|---------------------------|------------------|------------------------------|-----------------|
| 1                  | ProClova MSO                | 24 fl oz/A<br>1% v/v                  | 8 -               | 1 -                       | 14 cd            | 2 -                          | 74 -            |
| 2                  | GF-4574 MSO                 | 28 fl oz/A<br>1% v/v                  | 8 -               | 1 -                       | 20 a-d           | 2 -                          | 68 -            |
| 3                  | GF-4574 A90                 | 28 fl oz/A<br>0.25% v/v               | 10 -              | 2 -                       | 20 a-d           | 1 -                          | 66 -            |
| 4                  | GF-4574 MSO                 | 24 fl oz/A<br>1% v/v                  | 8 -               | 4 -                       | 22 abc           | 1 -                          | 64 -            |
| 5                  | ProClova MSO                | 48 fl oz/A<br>1% v/v                  | 6 -               | 1 -                       | 13 d             | 3 -                          | 76 -            |
| 6                  | GF-4574 MSO                 | 56 fl oz/A<br>1% v/v                  | 8 -               | 2 -                       | 16 bcd           | 2 -                          | 72 -            |
| 7                  | GF-4574 A90                 | 56 fl oz/A<br>0.25% v/v               | 6 -               | 2 -                       | 16 bcd           | 2 -                          | 72 -            |
| 8                  | GF-4574 MSO                 | 48 fl oz/A<br>1% v/v                  | 4 -               | 2 -                       | 21 a-d           | 3 -                          | 68 -            |
| 9                  | DuraCor A90                 | 12 fl oz/A<br>0.25% v/v               | 4 -               | 3 -                       | 13 d             | 5 -                          | 74 -            |
| 10                 | Loyant MSO                  | 4.9 fl oz/A<br>1% v/v                 | 8 -               | 3 -                       | 26 a             | 1 -                          | 62 -            |
| 11                 | Enlist One MSO              | 16.8 fl oz/A<br>1% v/v                | 8 -               | 2 -                       | 24 ab            | 1 -                          | 64 -            |
| 12                 | Loyant<br>Enlist One<br>MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 8 -               | 2 -                       | 25 a             | 1 -                          | 63 -            |
| <b>Statistics</b>  |                             |                                       |                   |                           |                  |                              |                 |
| LSD P=.05          |                             |                                       | 5.55              | 2.7                       | 8.48             | 2.81                         | 10.84           |
| Standard Deviation |                             |                                       | 3.86              | 1.87                      | 5.9              | 1.95                         | 7.53            |
| CV                 |                             |                                       | 54.43             | 81.02                     | 30.56            | 91.86                        | 10.89           |
| Treatment Prob(F)  |                             |                                       | 0.7254            | 0.4478                    | 0.0206           | 0.1263                       | 0.1009          |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

### 18 DAT – June 2<sup>nd</sup>, 2020

| Trt. No.           | Treatment             | Rate                                  | Burdock Injury (%) | Red Clover Injury (%) | White Clover Injury (%) | Dandelion Injury (%) |
|--------------------|-----------------------|---------------------------------------|--------------------|-----------------------|-------------------------|----------------------|
| 1                  | ProClova MSO          | 24 fl oz/A<br>1% v/v                  | 45 bc              | 33 cd                 | 18 cde                  | 78 -                 |
| 2                  | GF-4574 MSO           | 28 fl oz/A<br>1% v/v                  | 43 bc              | 30 de                 | 25 bcd                  | 68 -                 |
| 3                  | GF-4574 A90           | 28 fl oz/A<br>0.25% v/v               | 43 bc              | 43 bcd                | 15 cde                  | 73 -                 |
| 4                  | GF-4574 MSO           | 24 fl oz/A<br>1% v/v                  | 38 c               | 30 de                 | 15 cde                  | 65 -                 |
| 5                  | ProClova MSO          | 48 fl oz/A<br>1% v/v                  | 65 a               | 63 a                  | 40 ab                   | 90 -                 |
| 6                  | GF-4574 MSO           | 56 fl oz/A<br>1% v/v                  | 65 a               | 48 a-d                | 20 cde                  | 78 -                 |
| 7                  | GF-4574 A90           | 56 fl oz/A<br>0.25% v/v               | 58 ab              | 50 abc                | 30 bc                   | 80 -                 |
| 8                  | GF-4574 MSO           | 48 fl oz/A<br>1% v/v                  | 55 ab              | 53 ab                 | 17 cde                  | 80 -                 |
| 9                  | DuraCor A90           | 12 fl oz/A<br>0.25% v/v               | 68 a               | 65 a                  | 55 a                    | 85 -                 |
| 10                 | Loyant MSO            | 4.9 fl oz/A<br>1% v/v                 | 35 c               | 33 cd                 | 13 de                   | 75 -                 |
| 11                 | Enlist One MSO        | 16.8 fl oz/A<br>1% v/v                | 30 c               | 13 e                  | 10 e                    | 60 -                 |
| 12                 | Loyant Enlist One MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 45 bc              | 38 bc                 | 18 cde                  | 78 -                 |
| <b>Statistics</b>  |                       |                                       |                    |                       |                         |                      |
| LSD P=.05          |                       |                                       | 16.9               | 19.4                  | 13.9                    | 17.3                 |
| Standard Deviation |                       |                                       | 11.7               | 13.5                  | 9.6                     | 12                   |
| CV                 |                       |                                       | 23.95              | 32.76                 | 44.81                   | 15.8                 |
| Treatment Prob(F)  |                       |                                       | 0.0003             | 0.0002                | 0.0002                  | 0.0977               |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

### 26 DAT – June 10<sup>th</sup>, 2020 (1/2)

| Trt. No.           | Treatment             | Rate                                  | Burdock Injury (%) | Red Clover Injury (%) | White Clover Injury (%) | Dandelion Injury (%) |
|--------------------|-----------------------|---------------------------------------|--------------------|-----------------------|-------------------------|----------------------|
| 1                  | ProClova MSO          | 24 fl oz/A<br>1% v/v                  | 65 a-e             | 75 a                  | 28 b                    | 100 -                |
| 2                  | GF-4574 MSO           | 28 fl oz/A<br>1% v/v                  | 66 a-d             | 68 a                  | 25 b                    | 98 -                 |
| 3                  | GF-4574 A90           | 28 fl oz/A<br>0.25% v/v               | 58 b-e             | 70 a                  | 20 b                    | 80 -                 |
| 4                  | GF-4574 MSO           | 24 fl oz/A<br>1% v/v                  | 50 de              | 48 bc                 | 18 b                    | 60 -                 |
| 5                  | ProClova MSO          | 48 fl oz/A<br>1% v/v                  | 84 a               | 78 a                  | 30 b                    | 93 -                 |
| 6                  | GF-4574 MSO           | 56 fl oz/A<br>1% v/v                  | 75 abc             | 68 a                  | 25 b                    | 93 -                 |
| 7                  | GF-4574 A90           | 56 fl oz/A<br>0.25% v/v               | 75 abc             | 70 a                  | 23 b                    | 100 -                |
| 8                  | GF-4574 MSO           | 48 fl oz/A<br>1% v/v                  | 78 ab              | 63 ab                 | 20 b                    | 90 -                 |
| 9                  | DuraCor A90           | 12 fl oz/A<br>0.25% v/v               | 56 b-e             | 70 a                  | 60 a                    | 90 -                 |
| 10                 | Loyant MSO            | 4.9 fl oz/A<br>1% v/v                 | 50 de              | 48 bc                 | 18 b                    | 97 -                 |
| 11                 | Enlist One MSO        | 16.8 fl oz/A<br>1% v/v                | 42 e               | 30 c                  | 18 b                    | 30 -                 |
| 12                 | Loyant Enlist One MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 52 cde             | 43 c                  | 18 b                    | 88 -                 |
| <b>Statistics</b>  |                       |                                       |                    |                       |                         |                      |
| LSD P=.05          |                       |                                       | 24.11              | 18.9                  | 17.9                    | 26                   |
| Standard Deviation |                       |                                       | 16.72              | 13.1                  | 12.4                    | 17                   |
| CV                 |                       |                                       | 26.66              | 21.81                 | 52.78                   | 19.18                |
| Treatment Prob(F)  |                       |                                       | 0.0254             | 0.0002                | 0.0486                  | 0.1259               |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

## 26 DAT – June 10<sup>th</sup>, 2020 (2/2)

| Trt. No.           | Treatment             | Rate                                  | Burdock Density (#/m <sup>2</sup> ) | Burdock Control (%) | Burdock Cover (%) | Dandelion Cover (%) | Other Broadleaf Cover (%) | Clover Cover (%) | Bareground/Litter Cover (%) | Grass Cover (%) |
|--------------------|-----------------------|---------------------------------------|-------------------------------------|---------------------|-------------------|---------------------|---------------------------|------------------|-----------------------------|-----------------|
| 1                  | ProClova MSO          | 24 fl oz/A<br>1% v/v                  | 0.56 -                              | 6 -                 | 18 -              | 0.5 -               | 2 -                       | 14 bcd           | 8 -                         | 58 cde          |
| 2                  | GF-4574 MSO           | 28 fl oz/A<br>1% v/v                  | 0.60 -                              | 25 -                | 14 -              | 1 -                 | 3 -                       | 12 cd            | 6 -                         | 64 b-e          |
| 3                  | GF-4574 A90           | 28 fl oz/A<br>0.25% v/v               | 0.61 -                              | 0 -                 | 18 -              | 0.3 -               | 3 -                       | 15 bcd           | 5 -                         | 59 cde          |
| 4                  | GF-4574 MSO           | 24 fl oz/A<br>1% v/v                  | 0.62 -                              | 0 -                 | 19 -              | 0.5 -               | 2 -                       | 26 a             | 3 -                         | 50 e            |
| 5                  | ProClova MSO          | 48 fl oz/A<br>1% v/v                  | 0.30 -                              | 14 -                | 8 -               | 1 -                 | 2 -                       | 8 de             | 6 -                         | 76 ab           |
| 6                  | GF-4574 MSO           | 56 fl oz/A<br>1% v/v                  | 0.52 -                              | 16 -                | 15 -              | 1 -                 | 1 -                       | 12 cd            | 4 -                         | 67 a-d          |
| 7                  | GF-4574 A90           | 56 fl oz/A<br>0.25% v/v               | 0.24 -                              | 32 -                | 10 -              | 0.7 -               | 2 -                       | 12 cd            | 5 -                         | 71 abc          |
| 8                  | GF-4574 MSO           | 48 fl oz/A<br>1% v/v                  | 0.34 -                              | 11 -                | 12 -              | 0.5 -               | 2 -                       | 10 de            | 6 -                         | 70 a-d          |
| 9                  | DuraCor A90           | 12 fl oz/A<br>0.25% v/v               | 0.28 -                              | 33 -                | 10 -              | 1 -                 | 4 -                       | 2 e              | 6 -                         | 80 a            |
| 10                 | Loyant MSO            | 4.9 fl oz/A<br>1% v/v                 | 0.46 -                              | 0 -                 | 14 -              | 1 -                 | 2 -                       | 20 abc           | 3 -                         | 60 cde          |
| 11                 | Enlist One MSO        | 16.8 fl oz/A<br>1% v/v                | 0.45 -                              | 4 -                 | 16 -              | 0.5 -               | 1 -                       | 21 ab            | 3 -                         | 58 cde          |
| 12                 | Loyant Enlist One MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 0.52 -                              | 0 -                 | 16 -              | 2 -                 | 3 -                       | 20 abc           | 4 -                         | 56 de           |
| <b>Statistics</b>  |                       |                                       |                                     |                     |                   |                     |                           |                  |                             |                 |
| LSD P=.05          |                       |                                       | 0.3331                              | 29.425              | 10.44             | 0.95                | 2.4                       | 8.49             | 3.27                        | 14.89           |
| Standard Deviation |                       |                                       | 0.2313                              | 20.404              | 7.25              | 0.66                | 1.67                      | 5.9              | 2.27                        | 10.35           |
| CV                 |                       |                                       | 49.72                               | 178.06              | 50.22             | 79.21               | 69.09                     | 41.11            | 45.88                       | 16.13           |
| Treatment Prob(F)  |                       |                                       | 0.2673                              | 0.215               | 0.4664            | 0.1387              | 0.5914                    | 0.0002           | 0.2827                      | 0.0068          |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

### 39 DAT – June 23<sup>rd</sup>, 2020

| Trt. No.           | Treatment             | Rate                                  | Burdock Density (#/m <sup>2</sup> ) | Burdock Control (%) | Red Clover Injury (%) | White Clover Injury (%) |
|--------------------|-----------------------|---------------------------------------|-------------------------------------|---------------------|-----------------------|-------------------------|
| 1                  | ProClova MSO          | 24 fl oz/A<br>1% v/v                  | 0.40 -                              | 80 -                | 35 -                  | 10 -                    |
| 2                  | GF-4574 MSO           | 28 fl oz/A<br>1% v/v                  | 0.20 -                              | 94 -                | 37 -                  | 10 -                    |
| 3                  | GF-4574 A90           | 28 fl oz/A<br>0.25% v/v               | 0.24 -                              | 90 -                | 40 -                  | 10 -                    |
| 4                  | GF-4574 MSO           | 24 fl oz/A<br>1% v/v                  | 0.15 -                              | 90 -                | 20 -                  | 10 -                    |
| 5                  | ProClova MSO          | 48 fl oz/A<br>1% v/v                  | 0.08 -                              | 91 -                | 30 -                  | 15 -                    |
| 6                  | GF-4574 MSO           | 56 fl oz/A<br>1% v/v                  | 0.08 -                              | 97 -                | 33 -                  | 10 -                    |
| 7                  | GF-4574 A90           | 56 fl oz/A<br>0.25% v/v               | 0.17 -                              | 88 -                | 40 -                  | 15 -                    |
| 8                  | GF-4574 MSO           | 48 fl oz/A<br>1% v/v                  | 0.06 -                              | 98 -                | 43 -                  | 13 -                    |
| 9                  | DuraCor A90           | 12 fl oz/A<br>0.25% v/v               | 0.08 -                              | 94 -                | 10 -                  | 10 -                    |
| 10                 | Loyant MSO            | 4.9 fl oz/A<br>1% v/v                 | 0.10 -                              | 92 -                | 28 -                  | 10 -                    |
| 11                 | Enlist One MSO        | 16.8 fl oz/A<br>1% v/v                | 0.24 -                              | 80 -                | 25 -                  | 10 -                    |
| 12                 | Loyant Enlist One MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 0.10 -                              | 95 -                | 35 -                  | 10 -                    |
| <b>Statistics</b>  |                       |                                       |                                     |                     |                       |                         |
| LSD P=.05          |                       |                                       | 0.2522                              | 15.6                | 14.7                  | 4.2                     |
| Standard Deviation |                       |                                       | 0.1753                              | 10.85               | 10                    | 2.9                     |
| CV                 |                       |                                       | 115.12                              | 11.93               | 26.26                 | 26.26                   |
| Treatment Prob(F)  |                       |                                       | 0.2909                              | 0.3963              | 0.1032                | 0.1032                  |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).



| <b>52 DAT – July 6<sup>th</sup>, 2020 (1/2)</b> |                             |                                       |                              |                                |
|-------------------------------------------------|-----------------------------|---------------------------------------|------------------------------|--------------------------------|
| <b>Trt. No.</b>                                 | <b>Treatment</b>            | <b>Rate</b>                           | <b>Red Clover Injury (%)</b> | <b>White Clover Injury (%)</b> |
| <b>1</b>                                        | ProClova<br>MSO             | 24 fl oz/A<br>1% v/v                  | 43 a                         | 33 b-e                         |
| <b>2</b>                                        | GF-4574<br>MSO              | 28 fl oz/A<br>1% v/v                  | 40 ab                        | 35 a-d                         |
| <b>3</b>                                        | GF-4574<br>A90              | 28 fl oz/A<br>0.25% v/v               | 33 abc                       | 30 cde                         |
| <b>4</b>                                        | GF-4574<br>MSO              | 24 fl oz/A<br>1% v/v                  | 40 ab                        | 30 cde                         |
| <b>5</b>                                        | ProClova<br>MSO             | 48 fl oz/A<br>1% v/v                  | 43 a                         | 43 a                           |
| <b>6</b>                                        | GF-4574<br>MSO              | 56 fl oz/A<br>1% v/v                  | 45 a                         | 40 ab                          |
| <b>7</b>                                        | GF-4574<br>A90              | 56 fl oz/A<br>0.25% v/v               | no data                      | 43 a                           |
| <b>8</b>                                        | GF-4574<br>MSO              | 48 fl oz/A<br>1% v/v                  | 35 abc                       | 38 abc                         |
| <b>9</b>                                        | DuraCor<br>A90              | 12 fl oz/A<br>0.25% v/v               | no data                      | no data                        |
| <b>10</b>                                       | Loyant<br>MSO               | 4.9 fl oz/A<br>1% v/v                 | 28 c                         | 30 cde                         |
| <b>11</b>                                       | Enlist One<br>MSO           | 16.8 fl oz/A<br>1% v/v                | 25 c                         | 25 e                           |
| <b>12</b>                                       | Loyant<br>Enlist One<br>MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 30 bc                        | 28 de                          |
| <b>Statistics</b>                               |                             |                                       |                              |                                |
| LSD P=.05                                       |                             |                                       | 10.7                         | 9                              |
| Standard Deviation                              |                             |                                       | 7.3                          | 6.2                            |
| CV                                              |                             |                                       | 20.19                        | 18.5                           |
| Treatment Prob(F)                               |                             |                                       | 0.0071                       | 0.0028                         |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).



## 52 DAT – July 6<sup>th</sup>, 2020 (2/2)

| Trt. No.           | Treatment             | Rate                                  | Burdock Density (#/m <sup>2</sup> ) | Burdock Control (%) | Burdock Cover (%) | White Clover Cover (%) | Red Clover Cover (%) | Other Broadleaf Cover (%) | Bareground/Litter Cover (%) | Grass Cover (%) |
|--------------------|-----------------------|---------------------------------------|-------------------------------------|---------------------|-------------------|------------------------|----------------------|---------------------------|-----------------------------|-----------------|
| 1                  | ProClova MSO          | 24 fl oz/A<br>1% v/v                  | 0.02 -                              | 97 -                | 0.5 -             | 10 a-d                 | 1.5 bcd              | 0.8 -                     | 2 -                         | 84 ab           |
| 2                  | GF-4574 MSO           | 28 fl oz/A<br>1% v/v                  | 0.0 -                               | 88 -                | 0.3 -             | 10 a-d                 | 2 bc                 | 1 -                       | 2 -                         | 84 ab           |
| 3                  | GF-4574 A90           | 28 fl oz/A<br>0.25% v/v               | 0.08 -                              | 91 -                | 0.8 -             | 12 abc                 | 2.8 b                | 1 -                       | 2 -                         | 80 abc          |
| 4                  | GF-4574 MSO           | 24 fl oz/A<br>1% v/v                  | 0.08 -                              | 74 -                | 2 -               | 12 abc                 | 2.5 bc               | 0.8 -                     | 2 -                         | 80 abc          |
| 5                  | ProClova MSO          | 48 fl oz/A<br>1% v/v                  | 0 -                                 | 100 -               | 0 -               | 4 cd                   | 0.8 cd               | 1 -                       | 2 -                         | 91 ab           |
| 6                  | GF-4574 MSO           | 56 fl oz/A<br>1% v/v                  | 0.01 -                              | 96 -                | 0.3 -             | 10 abc                 | 1.8 bcd              | 0.8 -                     | 4 -                         | 83 abc          |
| 7                  | GF-4574 A90           | 56 fl oz/A<br>0.25% v/v               | 0 -                                 | 100 -               | 0 -               | 8 bcd                  | 0 d                  | 0.5 -                     | 4 -                         | 87 ab           |
| 8                  | GF-4574 MSO           | 48 fl oz/A<br>1% v/v                  | 0.01 -                              | 95 -                | 0.3 -             | 10 abc                 | 0.8 cd               | 0.8 -                     | 4 -                         | 84 ab           |
| 9                  | DuraCor A90           | 12 fl oz/A<br>0.25% v/v               | 0 -                                 | 100 -               | 0 -               | 0 d                    | 0 d                  | 2 -                       | 6 -                         | 92 ab           |
| 10                 | Loyant MSO            | 4.9 fl oz/A<br>1% v/v                 | 0.14 -                              | 70 -                | 2 -               | 18 a                   | 5 a                  | 0.5 -                     | 2 -                         | 72 c            |
| 11                 | Enlist One MSO        | 16.8 fl oz/A<br>1% v/v                | 0.06 -                              | 89 -                | 0.8 -             | 17 ab                  | 6 a                  | 2 -                       | 2 -                         | 72 c            |
| 12                 | Loyant Enlist One MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 0.05 -                              | 96 -                | 0.5 -             | 14 ab                  | 1.8 bcd              | 1.3 -                     | 2 -                         | 80 bc           |
| <b>Statistics</b>  |                       |                                       |                                     |                     |                   |                        |                      |                           |                             |                 |
| LSD P=.05          |                       |                                       | 0.0984                              | 25.346              | 1.47              | 9.96                   | 1.93                 | 1.11                      | 3.12                        | 11.82           |
| Standard Deviation |                       |                                       | 0.0684                              | 17.597              | 1.02              | 6.92                   | 1.34                 | 0.77                      | 2.17                        | 8.22            |
| CV                 |                       |                                       | 178.35                              | 19.27               | 175.7             | 64.78                  | 64.54                | 78.88                     | 68.55                       | 9.96            |
| Treatment Prob(F)  |                       |                                       | 0.1561                              | 0.2853              | 0.1062            | 0.0386                 | 0.0001               | 0.293                     | 0.1493                      | 0.0265          |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).





### 68 DAT – July 22<sup>nd</sup>, 2020

| Trt. No.           | Treatment             | Rate                                  | Burdock Density (#/m <sup>2</sup> ) | Burdock Control (%) | Burdock Cover (%) | White Clover Cover (%) | Red Clover Cover (%) | Other Broadleaf Cover (%) | Bareground /Litter Cover (%) | Grass Cover (%) |
|--------------------|-----------------------|---------------------------------------|-------------------------------------|---------------------|-------------------|------------------------|----------------------|---------------------------|------------------------------|-----------------|
| 1                  | ProClova MSO          | 24 fl oz/A<br>1% v/v                  | 0.04 bc                             | 95 a                | 0.8 cd            | 14 abc                 | 5 b-e                | 2 -                       | 2 -                          | 76 bc           |
| 2                  | GF-4574 MSO           | 28 fl oz/A<br>1% v/v                  | 0.01 c                              | 86 ab               | 0.5 cd            | 14 abc                 | 4 cde                | 4 -                       | 2 -                          | 76 bc           |
| 3                  | GF-4574 A90           | 28 fl oz/A<br>0.25% v/v               | 0.04 bc                             | 92 ab               | 0.5 cd            | 12 bc                  | 6.8 abc              | 5 -                       | 2 -                          | 74 bcd          |
| 4                  | GF-4574 MSO           | 24 fl oz/A<br>1% v/v                  | 0.06 bc                             | 65 bc               | 2.0 abc           | 23 a                   | 6.5 a-d              | 4 -                       | 2 -                          | 62 e            |
| 5                  | ProClova MSO          | 48 fl oz/A<br>1% v/v                  | 0.02 c                              | 92 ab               | 0.5 cd            | 7 cd                   | 2 de                 | 4 -                       | 3 -                          | 84 ab           |
| 6                  | GF-4574 MSO           | 56 fl oz/A<br>1% v/v                  | 0.02 c                              | 99 a                | 0.3 cd            | 12 bc                  | 4 cde                | 3 -                       | 2 -                          | 76 bc           |
| 7                  | GF-4574 A90           | 56 fl oz/A<br>0.25% v/v               | 0 c                                 | 100 a               | 0 d               | 10 bcd                 | 2 cde                | 3 -                       | 3 -                          | 81 b            |
| 8                  | GF-4574 MSO           | 48 fl oz/A<br>1% v/v                  | 0.01 c                              | 95 a                | 0.3 cd            | 12 bc                  | 2 cde                | 2 -                       | 2 -                          | 80 bc           |
| 9                  | DuraCor A90           | 12 fl oz/A<br>0.25% v/v               | 0.04 bc                             | 84 ab               | 1 bcd             | 0.5 d                  | 0.5 e                | 2 -                       | 3 -                          | 92 a            |
| 10                 | Loyant MSO            | 4.9 fl oz/A<br>1% v/v                 | 0.17 a                              | 47 c                | 3 a               | 16 abc                 | 9.8 ab               | 2 -                       | 3 -                          | 65 de           |
| 11                 | Enlist One MSO        | 16.8 fl oz/A<br>1% v/v                | 0.12 ab                             | 65 bc               | 2.8 ab            | 20 ab                  | 10 a                 | 4 -                       | 2 -                          | 60 e            |
| 12                 | Loyant Enlist One MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 0.04 bc                             | 85 ab               | 1 bcd             | 16 abc                 | 6 a-d                | 4 -                       | 3 -                          | 70 cde          |
| <b>Statistics</b>  |                       |                                       |                                     |                     |                   |                        |                      |                           |                              |                 |
| LSD P=.05          |                       |                                       | 0.0853                              | 29.099              | 1.91              | 10.09                  | 4.79                 | 3.98                      | 2.01                         | 10.71           |
| Standard Deviation |                       |                                       | 0.0593                              | 20.203              | 1.33              | 7.01                   | 3.33                 | 2.77                      | 1.4                          | 7.45            |
| CV                 |                       |                                       | 121.06                              | 24.09               | 124.8             | 53.19                  | 68.06                | 80.58                     | 52.36                        | 9.96            |
| Treatment Prob(F)  |                       |                                       | 0.0102                              | 0.0168              | 0.0214            | 0.0111                 | 0.0035               | 0.9326                    | 0.9545                       | 0.0001          |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).



### 81 DAT – August 4<sup>th</sup>, 2020

| Trt. No.           | Treatment             | Rate                                  | Burdock Density (#/m <sup>2</sup> ) | Burdock Control (%) | Burdock Cover (%) | White Clover Cover (%) | Red Clover Cover (%) | Other Broadleaf Cover (%) | Bareground /Litter Cover (%) | Grass Cover (%) |
|--------------------|-----------------------|---------------------------------------|-------------------------------------|---------------------|-------------------|------------------------|----------------------|---------------------------|------------------------------|-----------------|
| 1                  | ProClova MSO          | 24 fl oz/A<br>1% v/v                  | 0.03 bc                             | 90 a                | 1 cd              | 16 b                   | 6 cde                | 4 -                       | 2 -                          | 72 cd           |
| 2                  | GF-4574 MSO           | 28 fl oz/A<br>1% v/v                  | 0.02 bc                             | 98 a                | 0.5 d             | 16 b                   | 6 cde                | 2 -                       | 3 -                          | 71 cd           |
| 3                  | GF-4574 A90           | 28 fl oz/A<br>0.25% v/v               | 0.06 bc                             | 85 a                | 1 cd              | 18 ab                  | 8 cd                 | 2 -                       | 3 -                          | 66 de           |
| 4                  | GF-4574 MSO           | 24 fl oz/A<br>1% v/v                  | 0.08 bc                             | 54 bc               | 2 bc              | 20 ab                  | 8 cd                 | 4 -                       | 2 -                          | 64 de           |
| 5                  | ProClova MSO          | 48 fl oz/A<br>1% v/v                  | 0 c                                 | 100 a               | 0 d               | 6 cd                   | 2 e                  | 2 -                       | 3 -                          | 87 ab           |
| 6                  | GF-4574 MSO           | 56 fl oz/A<br>1% v/v                  | 0.01 c                              | 98 a                | 0.5 d             | 14 bc                  | 4 cde                | 2 -                       | 2 -                          | 76 bcd          |
| 7                  | GF-4574 A90           | 56 fl oz/A<br>0.25% v/v               | 0 c                                 | 100 a               | 0 d               | 12 bc                  | 2 e                  | 3 -                       | 4 -                          | 80 abc          |
| 8                  | GF-4574 MSO           | 48 fl oz/A<br>1% v/v                  | 0.02 bc                             | 86 a                | 0.8 cd            | 16 b                   | 4 de                 | 4 -                       | 3 -                          | 72 cd           |
| 9                  | DuraCor A90           | 12 fl oz/A<br>0.25% v/v               | 0.03 bc                             | 82 ab               | 1 cd              | 1 d                    | 0.5 e                | 2 -                       | 4 -                          | 90 a            |
| 10                 | Loyant MSO            | 4.9 fl oz/A<br>1% v/v                 | 0.20 a                              | 26 c                | 6 a               | 20 ab                  | 16 ab                | 3 -                       | 2 -                          | 53 ef           |
| 11                 | Enlist One MSO        | 16.8 fl oz/A<br>1% v/v                | 0.10 b                              | 40 c                | 4 ab              | 21 ab                  | 20 a                 | 4 -                       | 2 -                          | 48 f            |
| 12                 | Loyant Enlist One MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 0.03 bc                             | 90 a                | 1 cd              | 27 a                   | 10 bc                | 12 -                      | 2 -                          | 47 f            |
| <b>Statistics</b>  |                       |                                       |                                     |                     |                   |                        |                      |                           |                              |                 |
| LSD P=.05          |                       |                                       | 0.0892                              | 30.185              | 2                 | 10.09                  | 6.21                 | 6.25                      | 1.47                         | 13.99           |
| Standard Deviation |                       |                                       | 0.062                               | 20.957              | 1.39              | 7.01                   | 4.32                 | 4.35                      | 1.02                         | 9.72            |
| CV                 |                       |                                       | 124.57                              | 26.52               | 91.23             | 44.58                  | 58.56                | 115.24                    | 36                           | 14.14           |
| Treatment Prob(F)  |                       |                                       | 0.0024                              | 0.0001              | 0.0001            | 0.0012                 | 0.0001               | 0.1384                    | 0.1486                       | 0.0001          |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

### 136 DAT, September 28<sup>th</sup>, 2020

| Trt. No.           | Treatment             | Rate                                  | Burdock Density (#/m <sup>2</sup> ) | Burdock Control (%) | Burdock Cover (%) | White Clover Cover (%) | Red Clover Cover (%) | Other Broadleaf Cover (%) | Bareground /Litter Cover (%) | Grass Cover (%) |
|--------------------|-----------------------|---------------------------------------|-------------------------------------|---------------------|-------------------|------------------------|----------------------|---------------------------|------------------------------|-----------------|
| 1                  | ProClova MSO          | 24 fl oz/A<br>1% v/v                  | 0.02 -                              | 96 a                | 0.3 bc            | 10 ab                  | 6 a-e                | 1 -                       | 2 b                          | 80 a-d          |
| 2                  | GF-4574 MSO           | 28 fl oz/A<br>1% v/v                  | 0.01 -                              | 98 a                | 0.3 bc            | 8 b                    | 4 b-e                | 1 -                       | 1 b                          | 84 ab           |
| 3                  | GF-4574 A90           | 28 fl oz/A<br>0.25% v/v               | 0.04 -                              | 90 abc              | 0.8 abc           | 11 ab                  | 3.5 c-f              | 2 -                       | 2 b                          | 80 a-d          |
| 4                  | GF-4574 MSO           | 24 fl oz/A<br>1% v/v                  | 0.06 -                              | 80 bc               | 1.0 ab            | 12 ab                  | 8 a                  | 1 -                       | 1 b                          | 76 bcd          |
| 5                  | ProClova MSO          | 48 fl oz/A<br>1% v/v                  | 0.01 -                              | 92 ab               | 0.3 bc            | 9 b                    | 2 ef                 | 2 -                       | 2 b                          | 84 ab           |
| 6                  | GF-4574 MSO           | 56 fl oz/A<br>1% v/v                  | 0.04 -                              | 98 a                | 0.5 bc            | 8 b                    | 4 b-e                | 2 -                       | 2 b                          | 82 abc          |
| 7                  | GF-4574 A90           | 56 fl oz/A<br>0.25% v/v               | 0.06 -                              | 89 abc              | 0.8 abc           | 9.8 b                  | 2 def                | 2 -                       | 3 b                          | 82 abc          |
| 8                  | GF-4574 MSO           | 48 fl oz/A<br>1% v/v                  | 0.01 -                              | 95 a                | 0.3 bc            | 11 ab                  | 3 def                | 2 -                       | 1 b                          | 82 abc          |
| 9                  | DuraCor A90           | 12 fl oz/A<br>0.25% v/v               | 0.03 -                              | 96 a                | 0.3 bc            | 1 c                    | 0.5 f                | 2 -                       | 8 a                          | 88 a            |
| 10                 | Loyant MSO            | 4.9 fl oz/A<br>1% v/v                 | 0.01 -                              | 92 ab               | 0.8 abc           | 14 ab                  | 7 ab                 | 2 -                       | 1 b                          | 76 cd           |
| 11                 | Enlist One MSO        | 16.8 fl oz/A<br>1% v/v                | 0.13 -                              | 78 c                | 1.5 a             | 12 ab                  | 7 abc                | 1 -                       | 1 b                          | 77 bcd          |
| 12                 | Loyant Enlist One MSO | 4.9 fl oz/A<br>16.8 fl oz/A<br>1% v/v | 0.00 -                              | 100 a               | 0.0 c             | 16 a                   | 6 a-d                | 3 -                       | 2 b                          | 72 d            |
| <b>Statistics</b>  |                       |                                       |                                     |                     |                   |                        |                      |                           |                              |                 |
| LSD P=.05          |                       |                                       | 0.0867                              | 13.282              | 0.81              | 5.86                   | 3.69                 | 1.7                       | 3.12                         | 8.44            |
| Standard Deviation |                       |                                       | 0.0602                              | 9.221               | 0.57              | 4.07                   | 2.57                 | 1.18                      | 2.17                         | 5.87            |
| CV                 |                       |                                       | 137.69                              | 10.01               | 104.55            | 39.18                  | 56.75                | 61.06                     | 94.55                        | 7.3             |
| Treatment Prob(F)  |                       |                                       | 0.115                               | 0.034               | 0.036             | 0.0049                 | 0.005                | 0.3634                    | 0.0091                       | 0.0485          |

Note: Means followed by same letter or symbol do not significantly differ (P=.05, LSD).