Supplementary Table 1. Prevalence of glyphosate resistance mechanisms observed in plants from Ohio *Amaranthus tuberculatus* populations that survived 1X glyphosate.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Population Number | Sensitive | Resistant | Gene Amplification | P106S | Double | Unknown |
| 1 | 4 | 16 | 12 | 0 | 1 | 3 |
| 10 | 9 | 11 | 2 | 1 | 0 | 8 |
| 14 | 4 | 16 | 5 | 0 | 0 | 11 |
| 16 | 1 | 19 | 3 | 0 | 0 | 16 |
| 17 | 2 | 18 | 9 | 0 | 0 | 9 |
| 18 | 0 | 20 | 16 | 0 | 0 | 4 |
| 19 | 2 | 18 | 15 | 0 | 3 | 0 |
| 30 | 8 | 12 | 10 | 1 | 0 | 1 |
| 31 | 2 | 18 | 15 | 0 | 0 | 3 |
| 33 | 14 | 6 | 1 | 0 | 2 | 3 |
| 35 | 5 | 15 | 1 | 0 | 0 | 14 |
| 36 | 2 | 18 | 6 | 2 | 5 | 5 |
| 60 | 6 | 14 | 0 | 0 | 0 | 14 |
| 62 | 13 | 7 | 3 | 1 | 0 | 3 |
| 67 | 6 | 14 | 13 | 0 | 0 | 1 |
| 69 | 10 | 10 | 6 | 0 | 0 | 4 |

Supplementary Table 2. Prevalence of glyphosate resistance mechanisms observed in plants from Ohio *Amaranthus tuberculatus* populations that survived 1.5X glyphosate.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Population Number | Sensitive | Resistant | Gene Amplification | P106S | Double | Unknown |
| 2 | 0 | 20 | 3 | 1 | 0 | 16 |
| 13 | 1 | 19 | 0 | 1 | 0 | 18 |
| 16 | 6 | 14 | 10 | 2 | 0 | 2 |
| 35 | 10 | 10 | 5 | 0 | 0 | 5 |
| 60 | 8 | 12 | 6 | 0 | 0 | 8 |
| 70 | 5 | 15 | 6 | 3 | 1 | 7 |

Supplementary Table 3. Prevalence of lactofen resistance mechanisms within Ohio *Amaranthus tuberculatus* populations.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Population Number | Sensitive | Resistant | ΔG210 | R128 | Unknown |
| 1 | 20 | 0 | 0 | 0 | 0 |
| 2 | 20 | 0 | 0 | 0 | 0 |
| 3 | 20 | 0 | 0 | 0 | 0 |
| 4 | 20 | 0 | 0 | 0 | 0 |
| 10 | 19 | 1 | 1 | 0 | 0 |
| 11 | 20 | 0 | 0 | 0 | 0 |
| 14 | 39 | 1 | 0 | 0 | 1 |
| 16 | 20 | 0 | 0 | 0 | 0 |
| 17 | 20 | 0 | 0 | 0 | 0 |
| 18 | 20 | 0 | 0 | 0 | 0 |
| 19 | 12 | 8 | 7 | 0 | 1 |
| 20 | 20 | 0 | 0 | 0 | 0 |
| 30 | 20 | 0 | 0 | 0 | 0 |
| 31 | 20 | 0 | 0 | 0 | 0 |
| 33 | 8 | 12 | 9 | 0 | 3 |
| 35 | 20 | 0 | 0 | 0 | 0 |
| 36 | 20 | 0 | 0 | 0 | 0 |
| 55 | 20 | 0 | 0 | 0 | 0 |
| 60 | 37 | 3 | 0 | 0 | 3 |
| 62 | 19 | 1 | 0 | 0 | 1 |
| 67 | 19 | 1 | 0 | 0 | 1 |
| 69 | 17 | 3 | 0 | 0 | 3 |

Supplementary Table 4. Prevalence of atrazine resistance mechanisms within Ohio *Amaranthus tuberculatus* populations.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Population Number | Sensitive | Resistant | G264S | unknown |
| 1 | 1 | 19 | 0 | 19 |
| 11 | 18 | 2 | 0 | 2 |
| 14 | 15 | 0 | 0 | 0 |
| 18 | 14 | 1 | 0 | 1 |
| 19 | 8 | 7 | 0 | 7 |
| 30 | 12 | 3 | 0 | 3 |
| 31 | 10 | 5 | 0 | 5 |
| 33 | 11 | 4 | 0 | 4 |
| 35 | 17 | 3 | 0 | 3 |
| 36 | 14 | 1 | 0 | 1 |
| 60 | 15 | 0 | 0 | 0 |
| 62 | 12 | 3 | 0 | 3 |
| 67 | 14 | 1 | 0 | 1 |