| Herbicide Treatment <sup>a</sup> | Rate  |        | - Kochia <sup>b</sup> - |           | 6         | reen foxtai | 1      | Wheat<br>vield |
|----------------------------------|-------|--------|-------------------------|-----------|-----------|-------------|--------|----------------|
| Therefore the treatment          | Rute  | 10DAT  | 30DAT                   | 65DAT     | 10DAT     | 30DAT       | 65DAT  | yield          |
|                                  | oz/A  |        |                         | - percent | control — |             |        | bu/A           |
| 1 Untreated Check                |       | 0      | 0                       | 0         | 0         | 0           | 0      | 91 -           |
| 2 Batalium Amped                 | 16    | 86 ab  | 91 ab                   | 86 a      | 79 a      | 91 ab       | 100 a  | 92 -           |
| 3 Batalium Amped                 | 16    | 88 a   | 87 abc                  | 86 a      | 78 ab     | 95 a        | 97 a   | 90 -           |
| H3384ae                          | 0.4   |        |                         |           |           |             |        |                |
| 4 Huskie Complete                | 13.7  | 85 abc | 92 ab                   | 87 a      | 76 bc     | 81 c        | 81 b   | 93 -           |
| 5 PerfectMatch                   | 16    | 73 d   | 79 d                    | 76 b      | 72 d      | 77 c        | 78 b   | 87 -           |
| 6 Rezuvant                       | 16.4  | 76 d   | 85 bcd                  | 81 ab     | 79 a      | 88 b        | 84 b   | 90 -           |
| 7 KFD-776-01                     | 15.75 | 84 bc  | 84 cd                   | 82 ab     | 78 ab     | 88 b        | 95 a   | 94 -           |
| 8 Huskie Complete                | 13.7  | 86 abc | 92 a                    | 86 a      | 80 a      | 80 c        | 80 b   | 91 -           |
| H3384ae                          | 0.4   |        |                         |           |           |             |        |                |
| 9 PerfectMatch                   | 16    | 83 c   | 91 ab                   | 81 ab     | 76 c      | 80 c        | 80 b   | 88 -           |
| H3384ae                          | 0.4   |        |                         |           |           |             |        |                |
| LSD P=.05                        |       | 3.09   | 6.3                     | 6.85      | 2.46      | 6.24        | 6.34   | 4.82           |
| Standard Deviation               |       | 2.13   | 4.24                    | 4.61      | 1.69      | 4.27        | 4.36   | 3.25           |
| CV                               |       | 2.91   | 5.56                    | 6.15      | 2.47      | 5.67        | 5.63   | 3.73           |
| Treatment F                      |       | 682.23 | 186.59                  | 150.89    | 932.80    | 182.88      | 191.87 | 1.88           |
| Treatment Prob(F)                |       | 0.0001 | 0.0001                  | 0.0001    | 0.0001    | 0.0001      | 0.0001 | 0.1263         |

Table 1. Comparison of standard herbicide treatments with Battalium Amped for weed control in spring wheat at Hettinger, ND, 2023.

<sup>a</sup> Batalium Amped; bromoxynil plus fluroxypyr plus flucarbazone; H3384ae, tribenuron plus thifensulfuron; Huskie Complete, thiencarbazone plus pyrasulfotole plus bromoxynil; Rezuvant, fluroxypyr plus pinoxaden plus halauxifen; KFD-776-01, flucarbazone; PerfectMatch, fluroxypyr plus clopyralid plus pyroxsulam. Treatments were applied postemergence to both wheat and weeds on June 5, 2023; wheat was in the early tillering phase; kochia was an average of 2 inches, green foxtail was an average of 3.2 inches at time of application.

<sup>b</sup> Kochia and green foxtail were evaluated for control 10, 30, and 60 days after treatments were applied

| Application Descrip | tion     | Application Equipment |           |  |  |
|---------------------|----------|-----------------------|-----------|--|--|
| Date                | 6/5/2023 | Sprayer Type          | Tractor   |  |  |
| Start Time          | 9:12 AM  | Pressure              | 37 PSI    |  |  |
| Stop Time           | 9:36 AM  | Nozzle Model          | DG11003   |  |  |
| Air Temp            | 77 F     | Nozzle Spacing        | 20 IN     |  |  |
| Rel Humidity        | 59       | Boom Length           | 100 IN    |  |  |
| Wind Speed          | 4.5 MPH  | Boom Height           | 28 IN     |  |  |
| Soil Temp           | 65 F     | Ground Speed          | 3 MPH     |  |  |
| % Cloud Cover       | 0        | Application Amount    | 15 GAL/AC |  |  |
|                     |          | Propellant            | CO2       |  |  |

Table 2. Description of herbicide application and equipment for treatments applied for weed control in spring wheat at Hettinger, ND, 2023.

A trial was conducted near Hettinger, ND to evaluate Battalium Amped with other standard herbicide treatments for control of kochia and green foxtail in spring wheat. Spring wheat was planted using a notill drill at a depth of 2 inches on May 1, 2023 and emerged on May 9. Soil was dry at time of application due to very little rainfall in April; in the two weeks after planting there was over 5 inches of rainfall. Herbicide treatments were applied when wheat was in the early tillering phase and when kochia was averaging 2 inches in height and green foxtail averaged 3.2 inches in height. Batalium Amped provided good to excellent control of kochia and green foxtail and performed as well or better than the other standard treatments. Yield of spring wheat was much higher than normal during 2023 due to the above normal rainfall. Wheat yield ranged from 87 to 94 bu/A and there were no statistical differences in wheat yield due to herbicide treatment, even when no herbicide was applied. The lack of rainfall in April delayed the emergence of both kochia and green foxtail and allowed the spring wheat to gain a competitive advantage and the above average rainfall allowed the wheat to keep that advantage.