

Title: Effect of Palisade on Lodging in Spring Wheat - 2016

Objective: To evaluate the effect of Palisade on lodging when applied at different rates and timings in spring wheat.

Materials and Methods:

Palisade was applied at 7 oz/A to Egan spring wheat at the tillering (June 1) and flag leaf (June 10) growth stages either as single or sequential applications (Table 2). Treatments were applied using a CO₂ backpack sprayer with Teejet XR11002 nozzles in 20 GPA of water and were replicated three times in a randomized complete block design.

Results:

No significant differences were observed for height, lodging, test weight, yield or grain quality.

Summary:

Palisade as single or sequential applications at tillering and/or flag leaf stage had no effect on plant height, test weight, lodging or yield.

Table 1. Materials and Methods.

| | | | |
|----------------|--|---------------|-------------------------|
| Seeding Date: | 4/22/2016 | Harvest Date: | 8/31/2016 |
| Julian Date: | 113 | Julian Date: | 244 |
| Seeding Rate: | 120 lb/A | Soil Type: | Creston SiL |
| Previous Crop: | winter wheat | Soil Test: | 104-24-652-154 |
| Tillage: | Conventional | Fertilizer: | BC: 235-40-60 DR:3-14-0 |
| Herbicide: | Huskie 11 oz/A + Axial 16.4 oz/A + NIS 1 qt/100 gal + UAN 28% 1 qt/A | | |

Table 2. Effect of rate and timing of Palisade on agronomic performance of spring wheat, Kalispell, MT - 2016.

| | Rate | Timing | Height (inches) | | LOD | YLD ¹ | PRO ² | TWT ¹ | FN |
|--------------|-----------|-------------|-----------------|--------|--------|------------------|------------------|------------------|--------|
| | | | 7/1 | 8/9 | % | bu/A | % | lb/bu | sec |
| Check | | | 40.9 | 40.9 | 7.7 | 103.3 | 14.9 | 60.6 | 436 |
| Palisade 2EC | 7 fl oz/a | Tillering | 40.2 | 40.8 | 0.7 | 104.4 | 14.6 | 60.7 | 450 |
| Palisade 2EC | 2 fl oz/a | Tillering + | | | | | | | |
| Palisade 2EC | 5 fl oz/a | Flag leaf | 40.3 | 41.3 | 1.0 | 101.2 | 14.7 | 60.7 | 434 |
| Palisade 2EC | 5 fl oz/a | Tillering + | | | | | | | |
| Palisade 2EC | 2 fl oz/A | Flag leaf | 39.4 | 41.2 | 4.0 | 103.1 | 14.9 | 60.7 | 436 |
| Palisade 2EC | 7 fl oz/a | Flag leaf | 40.3 | 40.8 | 8.3 | 104.2 | 14.9 | 60.6 | 444 |
| Mean | | | 40.2 | 41.0 | 4.3 | 103.3 | 14.81 | 60.7 | 440 |
| CV | | | 3.4 | 1.6 | 157.1 | 5.2 | 3.22 | 0.3 | 4.7 |
| LSD | | | ns | ns | ns | ns | ns | ns | ns |
| Pr>F | | | 0.7273 | 0.8082 | 0.5379 | 0.9478 | 0.9096 | 0.7925 | 0.8547 |

LOD: lodging, YLD: yield, PRO: protein, TWT: test weight, FN: falling number, ns: nonsignificant.

¹adjusted to 13% moisture.

²adjusted to 12% moisture.