DISH update

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Summary

Forage yields for fall sprayed were much lower than anticipated.

We expected 2.4 Mg ha and observed 0.6 Mg ha.

Data was double checked for accuracy.

Water content of forage yield was 40%, which is typical.

No obvious plausible treatment differences were observed, unless there is a mechanism for axial and dual improving forage yield through weed control that is also observed in weed control ratings.

For spring sprayed plots, we expect much higher yields. It's possible we could increase quadrat length from 12" to capture more area and reduce variability. We currently are sampling 0.15 square meters. 1 square meter is standard, but we are trying not to have a large impact on the plot from forage sampling to reduce the impact on grain yield determination later in season.

Key information

DISH = Debalin Isisdor Herbicide Trial. Trial tests kernza response to certain herbicides

DISH drive folder

DISH master with data and plot map

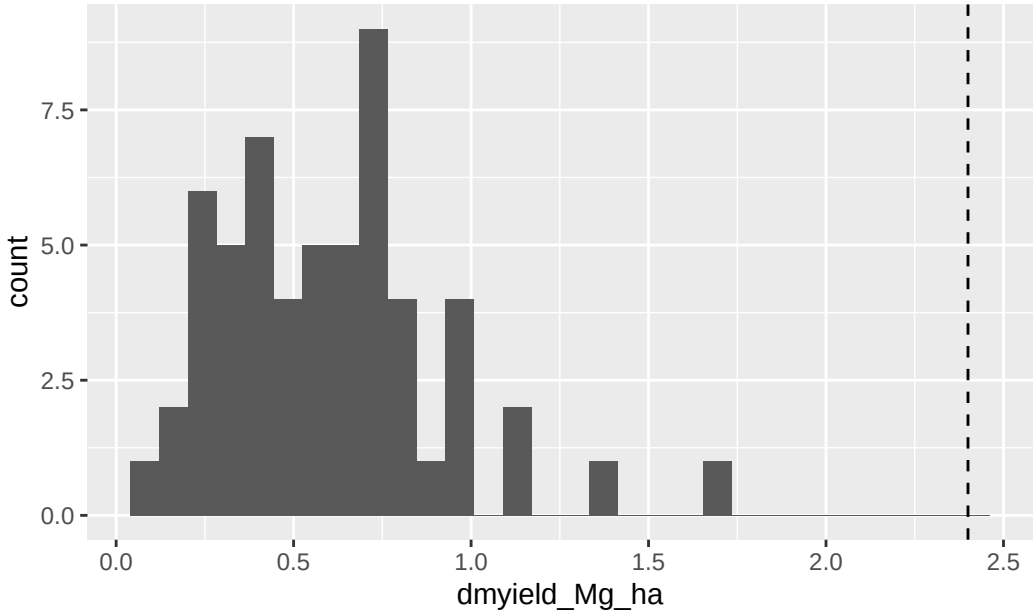
DISH data processing files

Forage yield

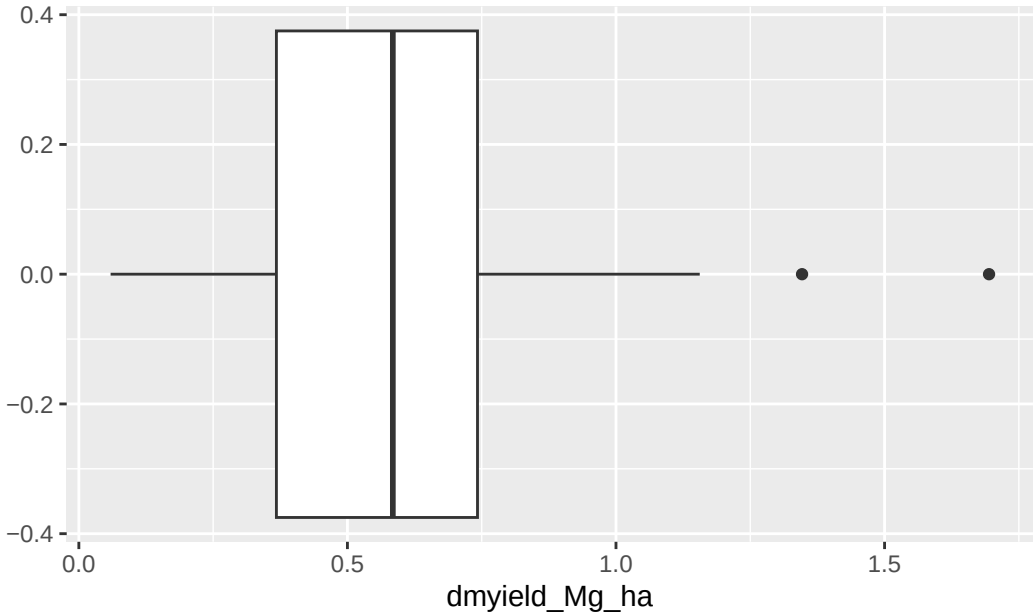
We expect spring forage yields around 2.4 Mg Ha (Hunter et al. 2020)

```
      plot      treatment          dmyield_Mg_ha
 Min.   :101   Length:57          Min.   :0.05911
 1st Qu.:115   Class :character   1st Qu.:0.36780
 Median :210   Mode  :character   Median :0.58453
 Mean   :210                      Mean   :0.59755
 3rd Qu.:305                      3rd Qu.:0.74216
 Max.   :319                      Max.   :1.69449
```

we observe 0.6 Mg Ha average spring forage yield.

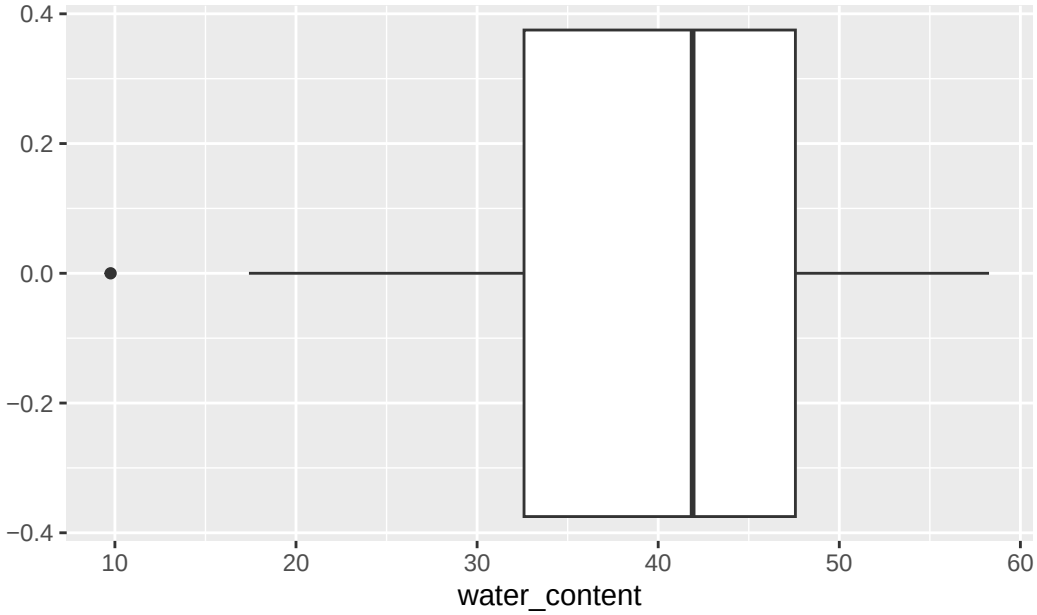


Spring forage yield is typically 2.4 Mg ha (Hunter et all 2020)



outliers were double checked and are correct

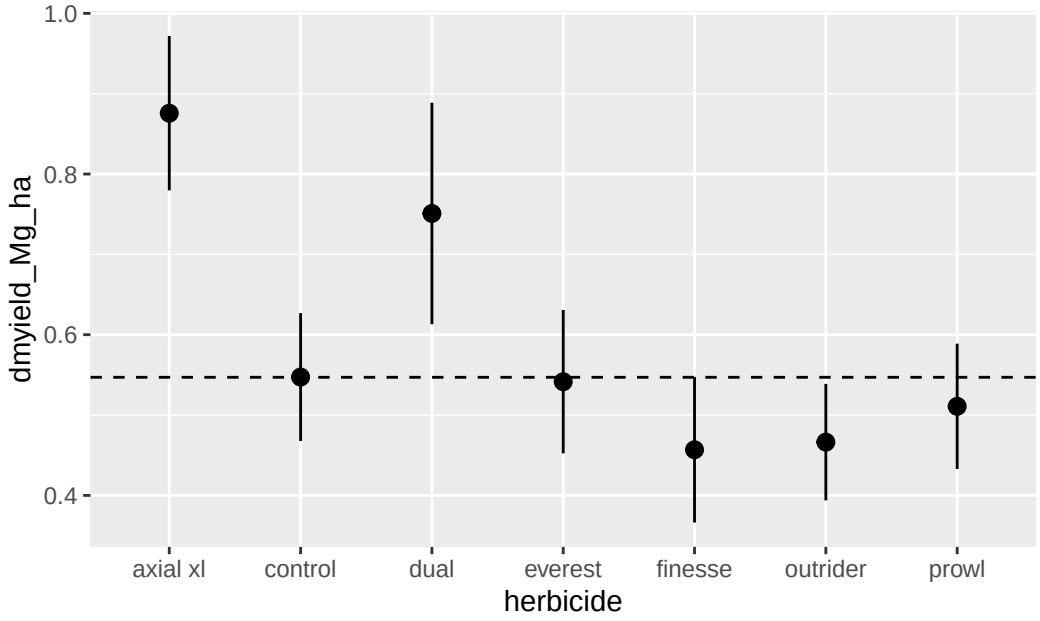
water content



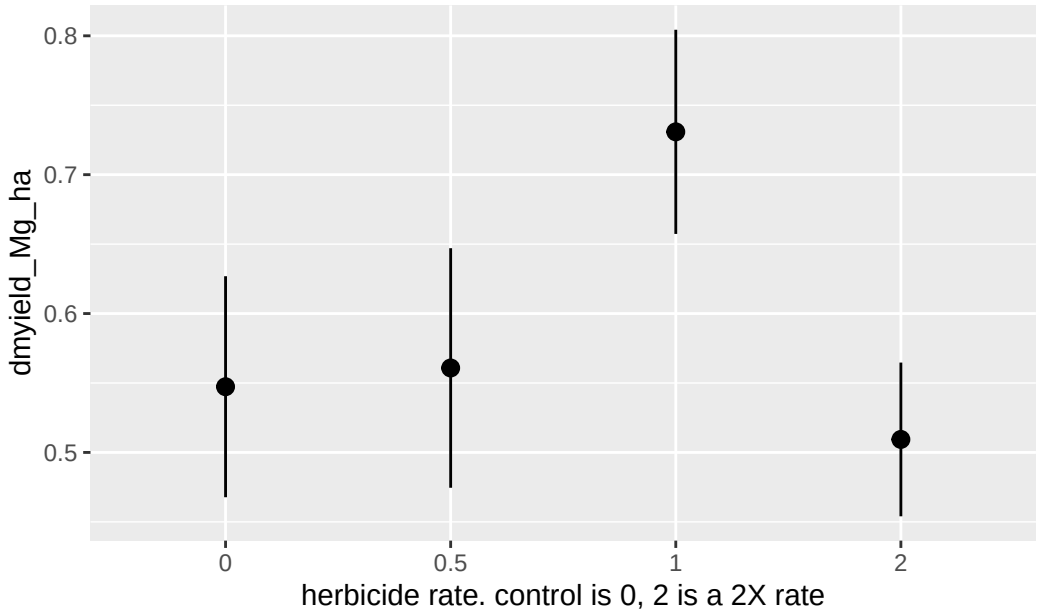
the outlier had a very small amount of sample but the value is correct

water content averaged around 40%

treatment differences



finesse and outrider may have lower DM yield than control



imilar yield as control, likely no herbicide injury from fall herbicide applicaiton on spring forage yield

References

Hunter, Mitchell C., Craig C. Sheaffer, Steven W. Culman, William F. Lazarus, and Jacob M. Jungers. 2020. "Effects of Defoliation and Row Spacing on Intermediate Wheatgrass II: Forage Yield and Economics." *Agronomy Journal* 112: 1862–80. https://doi.org/10.1002/agj2.20124.