

MU Certified Strip Trial Program

2018 Termination Date Trial (Site 2)

Harvest Report

Site Number: 2 (Franklin County)

Extension Contact: Charles Ellis

Trial Harvest Summary

This is a cover crop trial comparing the effect of yield on cover crop strips that are terminated on two different dates. The first termination date was April 24th, the second termination date was May 6th, and soybean was planted on May 13th. The second termination date was 12 days after the first termination date. There was a mean yield difference of 0.9 bushels per acre between the two termination dates, but the difference at this location was not statistically significant. See Table/Graph 1 for a summary of yield results.

Please note the section towards the end of the report that summarizes management information currently known about the trial. Missing information is highlighted in yellow. Please provide your extension contact the missing information as soon as possible and let us know if any other corrections or changes need to be made.

At the end of the report are two tables summarizing results from all of the cover crop termination date trials for the last three years. Please note that all of the analysis is preliminary.

The MU Strip Trial program will have meetings throughout Missouri in February of 2019. *More information on location and dates will be sent out soon.* We encourage you to attend the strip trial meeting that is closest to you. This will be an opportunity for discussion on what was learned across farms and multiple years of trials. It will also be an opportunity for you to give feedback on how the trial worked on your farm and provide ideas for future trials.

Please follow us on Twitter at @MUStripTrials!

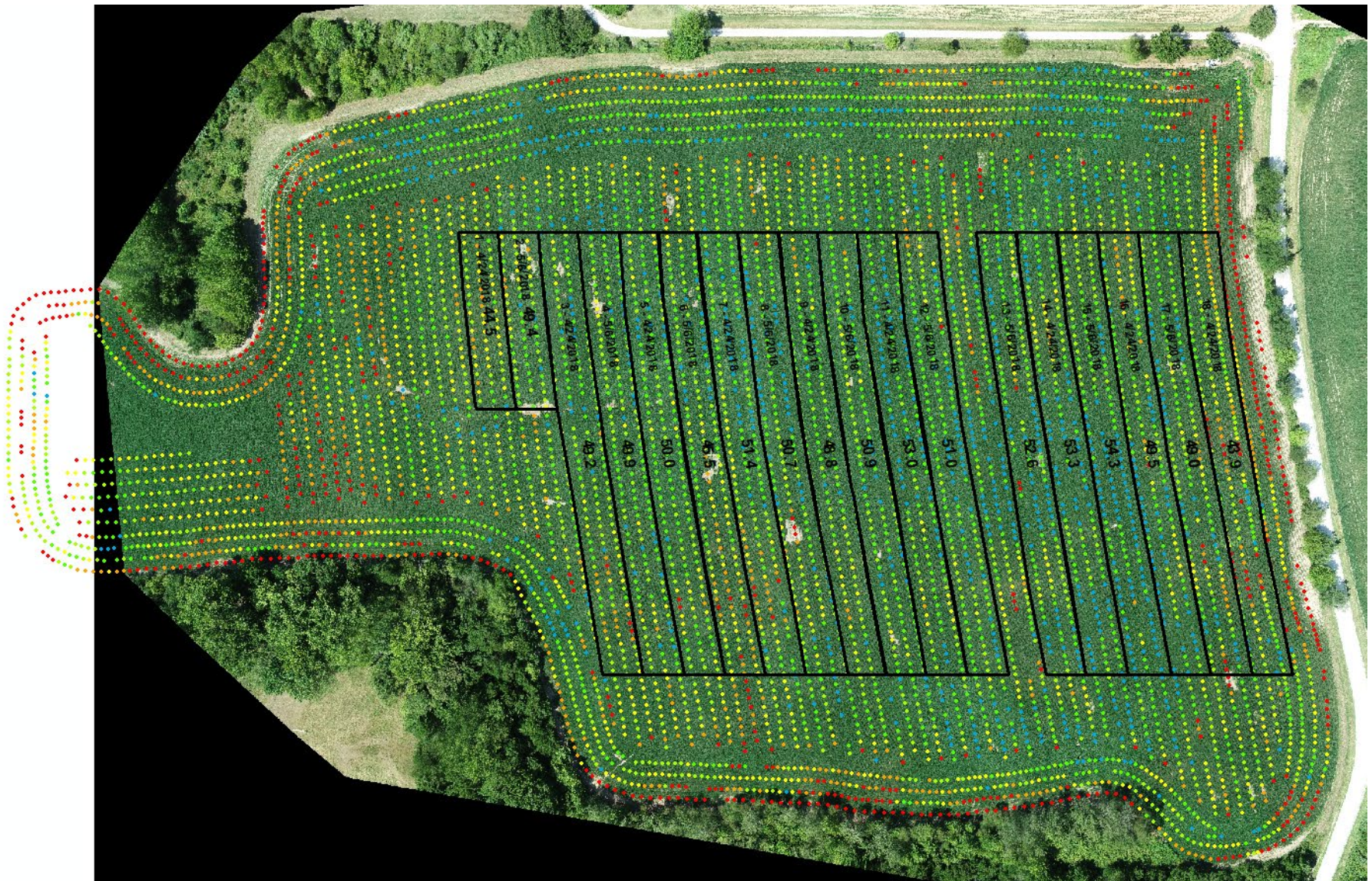
Thank you for agreeing to do this trial! It is one of five termination date trials in 2018.

The mission of the MU Certified Strip Trial Program is to help farmers validate management decisions on their farm and document efficiency and environmental stewardship.

The MU Certified Strip Trial Program is funded by:

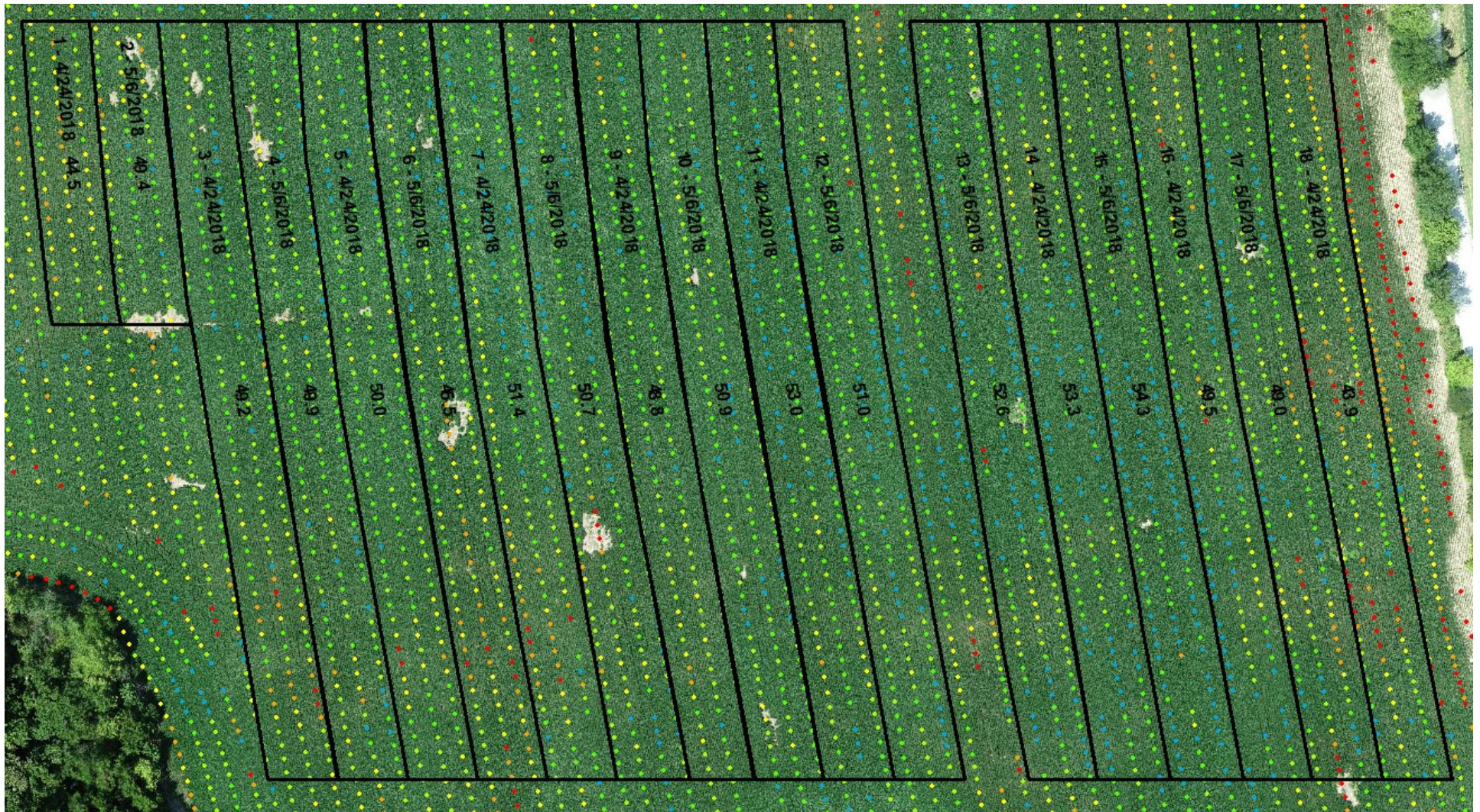
MU Extension, the Missouri Soybean Merchandising Council and the Missouri Corn Merchandising Council.

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● < 35 bu/A
 ● 35 – 40 bu/A
 ● 40 - 45 bu/A
 ● 45 – 50 bu/A
 ● 50 – 55 bu/A
 ● >55 bu/A

Figure 1a. Whole field showing soybean dry yield data reported as bushels per acre (bu/A). Strips are labeled with their mean yield and the date of termination. The field was harvested October 18, 2018.



● < 35 bu/A
 ● 35 – 40 bu/A
 ● 40 - 45 bu/A
 ● 45 – 50 bu/A
 ● 50 – 55 bu/A
 ● >55 bu/A

Figure 1b. Close-up of strips showing soybean dry yield data reported as bushels per acre (bu/A). Strips are labeled with their mean yield and the date of termination.

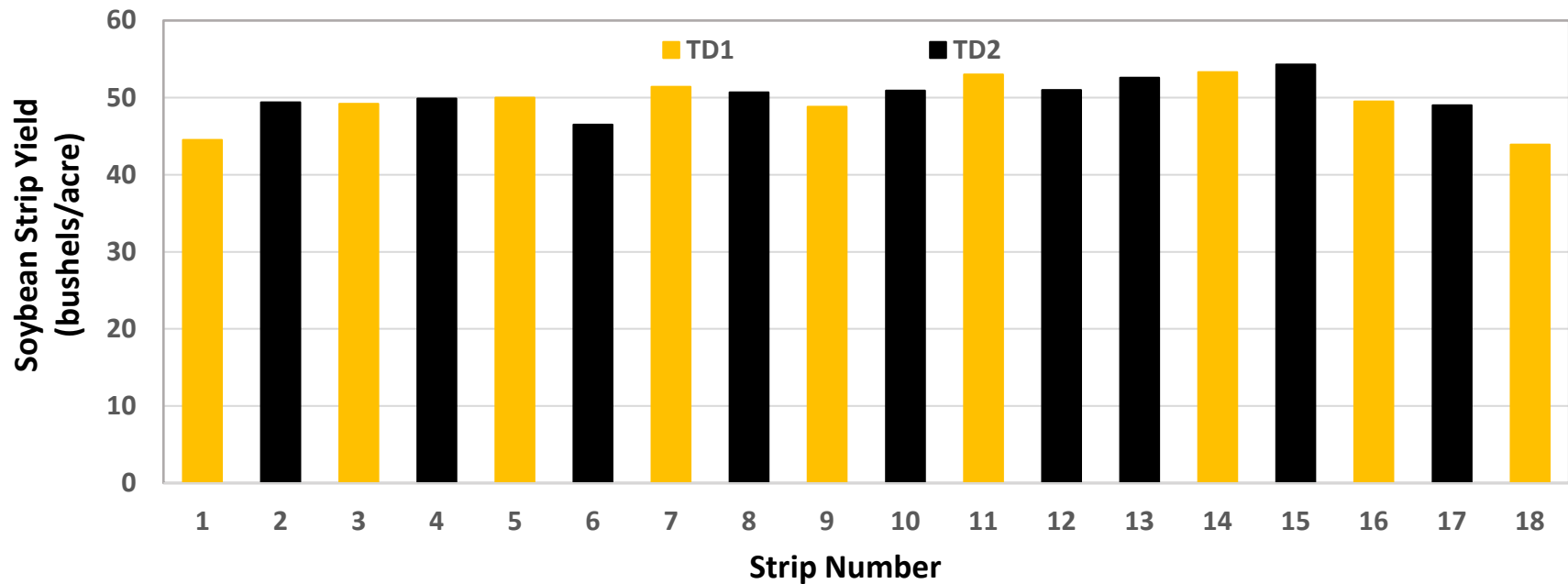
Table 1/Graph 1. Strip means of soybean yield.

Mean soybean yields:

Mean of all Strips: 49.8 bushels/acre
 Termination Date 1 (TD1) 4/24/18 Strips: 49.3 bushels/acre
 Termination Date 2 (TD2) 5/6/18 Strips: 50.7 bushels/acre
 Treatment difference: -1.3 bushels/acre

Preliminary analysis shows that this difference was not statistically significant.

| Strip | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Treatment | TD1 | TD2 | TD1 | TD2 | TD1 | TD2 | TD1 | TD2 | TD1 | TD2 | TD1 | TD2 | TD2 | TD1 | TD2 | TD1 | TD2 | TD1 |
| Yield (Bushels/Acre) | 44.5 | 49.4 | 49.2 | 49.9 | 50.0 | 46.5 | 51.4 | 50.7 | 48.8 | 50.9 | 53.0 | 51.0 | 52.6 | 53.3 | 54.3 | 49.5 | 49.0 | 43.9 |



Cover Crop Management Information

| | Termination Date 1 | Termination Date 2 |
|-----------------------------|--|--|
| Cover crop | Cereal Rye | Cereal Rye |
| Planting date | 10/10/2017 | 10/10/2017 |
| Seeding rate | 15 pounds/acre with no till drill | 15 pounds/acre with no till drill |
| Termination date (TD) | 4/24/2018 | 5/6/2018 |
| Height/stage at termination | 8 inches, vegetative | 24-30 inches, reproductive |
| Herbicides applied | Glyphosate 1 quarts/acre 2, 4-D 1 pint/acre | Glyphosate 1 quarts/acre 2, 4-D 1 pint/acre |
| Herbicide extent | TD 1 Strips only | TD 2 Strips only |

Grain Crop Management Information

| Planting Date | Variety | Seeding Rate | Harvest Date |
|----------------|-------------------|--------------|--------------|
| 5/13/2018 | Ag-Venture 41B5LL | 155,000 | 10/18/2018 |
| Crop Rotation | Corn and Soybean | | |
| Tillage System | No Till | | |

Other Input Information

| Date | Type of Input | Product Name | Rate Applied |
|------|---------------|--------------|--------------|
| | Herbicide | Liberty | 1 quart/Acre |

Equipment Specifics

| Equipment | Type | Width (in feet) |
|---------------|---------------|-----------------|
| Planter | White 6100 | 13.75 |
| Sprayer | | 45 |
| Combine | Gleaner R-42 | 15 |
| Yield Monitor | AgLeader 1200 | |