

Effect of Ridging on Dark Tobacco Standability and Sucker Control

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Dark Tobacco Sucker Control

- Manual stalk rundown applications of contact and local systemic products are the primary means of sucker control in dark-fired tobacco
- MH is NOT the primary component of dark tobacco sucker control programs
 - Industry has preferred no MH or minimal MH
- Labor costs for manual sucker control may be 10X higher than spray programs used in burley
- Dark tobacco is often crooked, making sucker control more difficult

Objective

- If dark tobacco could be kept straight, could a spray program be used to reduce labor cost

Objective:

- To evaluate dark tobacco on ridged vs. Flat ground, topped at different heights, and broadcast sprayed or droplined for sucker control.
 - Rate sucker control (0 to 100%)
 - Rate stalks for straightness (crooked stalks/plot)
 - Total yield

2021 Treatments

- 1) Tobacco topped to 14 leaves and drop-lined with alcohol; alcohol + DNA
- 2) Tobacco topped to 18 leaves and drop-lined with alcohol; alcohol + DNA
- 3) Tobacco topped to 14 leaves and sprayed over the top with alcohol; alcohol + DNA
- 4) Tobacco topped to 18 leaves and sprayed over the top with alcohol; alcohol + DNA

Field Layout & Treatments in KY

- 1) Tobacco topped to 14 leaves and drop-lined with alcohol; alcohol + DNA
- 2) Tobacco topped to 18 leaves and drop-lined with alcohol; alcohol + DNA
- 3) Tobacco topped to 14 leaves and sprayed over the top with alcohol; alcohol + DNA
- 4) Tobacco topped to 18 leaves and sprayed over the top with alcohol; alcohol + DNA

Flat Ground

Ridged Ground

2	1	4	3	2	1	4	3
4	3	1	2	4	3	1	2
3	4	2	1	3	4	2	1
1	2	3	4	1	2	3	4

Two Trials in Graves Co. KY

Test 1 (Early Test)

- Flat vs. Bedded before transplanting
- 12 vs. 16 leaf topping
- Broadcast spray vs. Dropline

Test 2 (Late Test)

- Flat vs. Hilled after setting
- 14 vs. 18 leaves
- Directed spray vs. Dropline

1 test in Springfield TN

- Flat vs. Bedded before transplanting
- 14 vs. 18 leaf topping
- Directed spray vs. Dropline

Starting Off The Year



Fertilizer applied according to soil test recommendations
Herbicides applied after ridges formed and left on top of ground
Trial was at the top of hill ridges run to bottom of field

Ridges Between Rows

Tobacco Set:
May 30, 2021
KT D6



Picture Taken:
June 23, 2021

Water Damage

Test: Granada Silt loam 2-6% slope

Picture: Falaya silt loam

Early Crop Rating



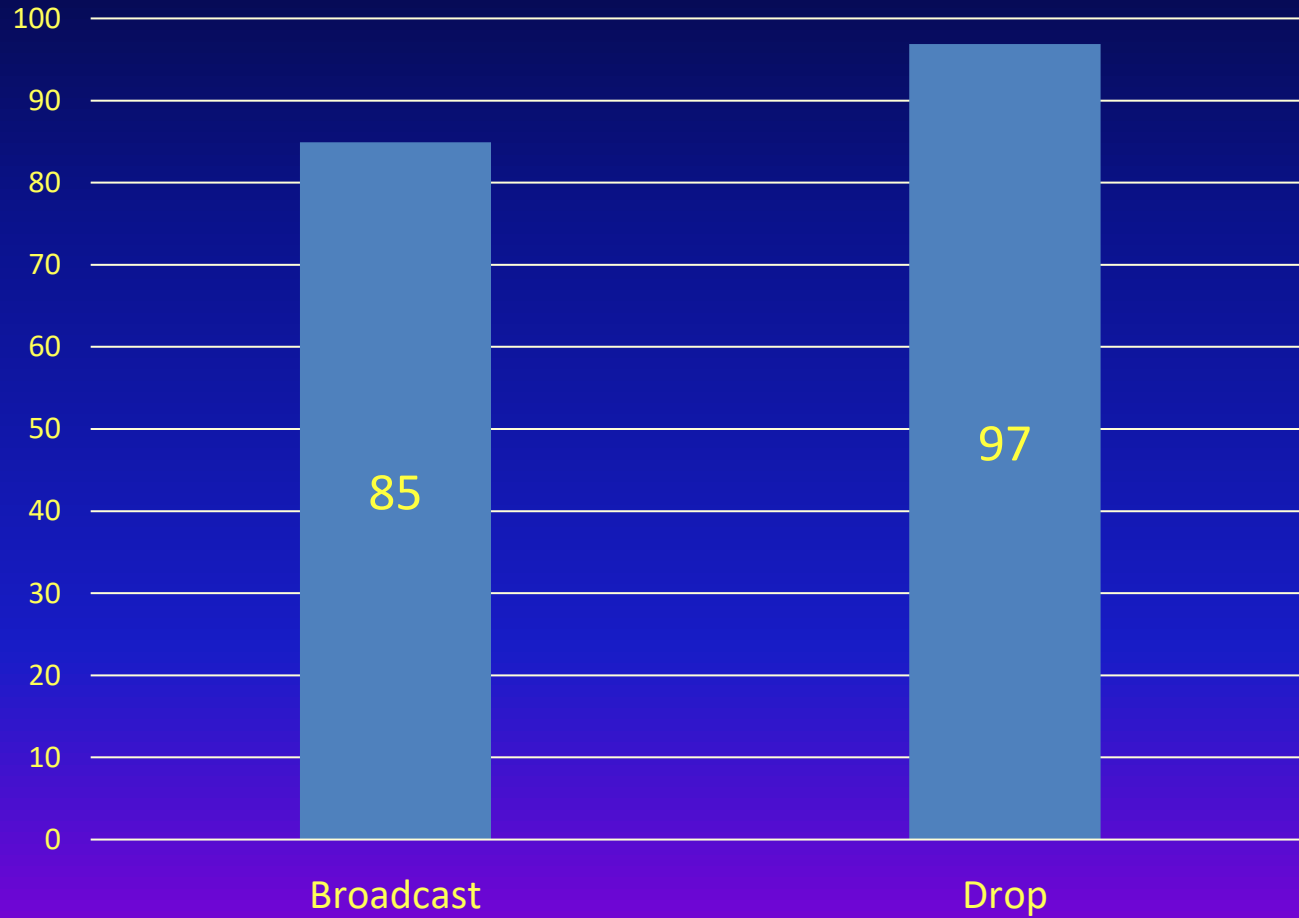
Picture Taken: August 18, 2021

Chemical Injury

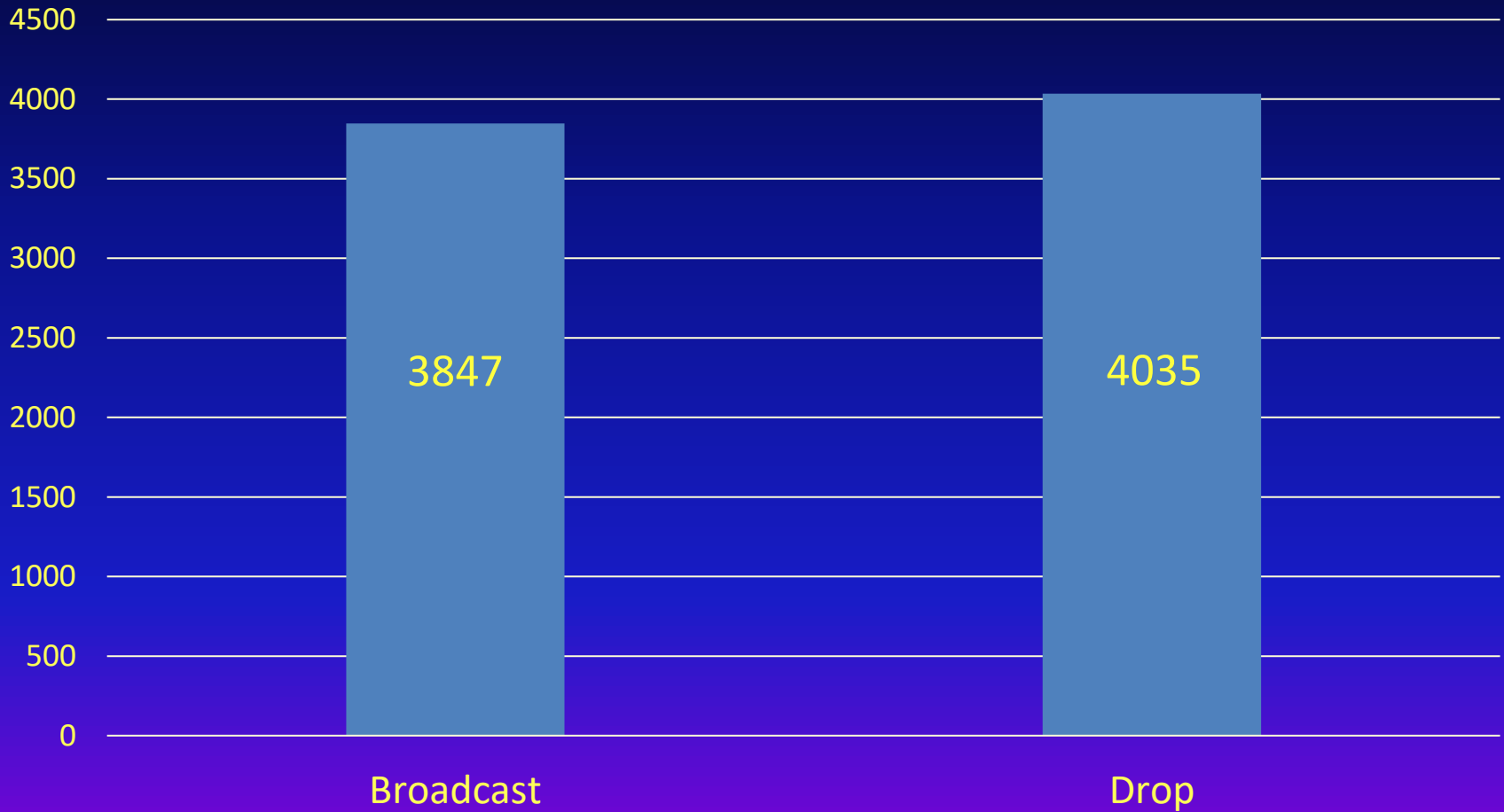
12 leaf height showed
more burn



1ST Test % Sucker Control



1st Test Yield for Spray Method



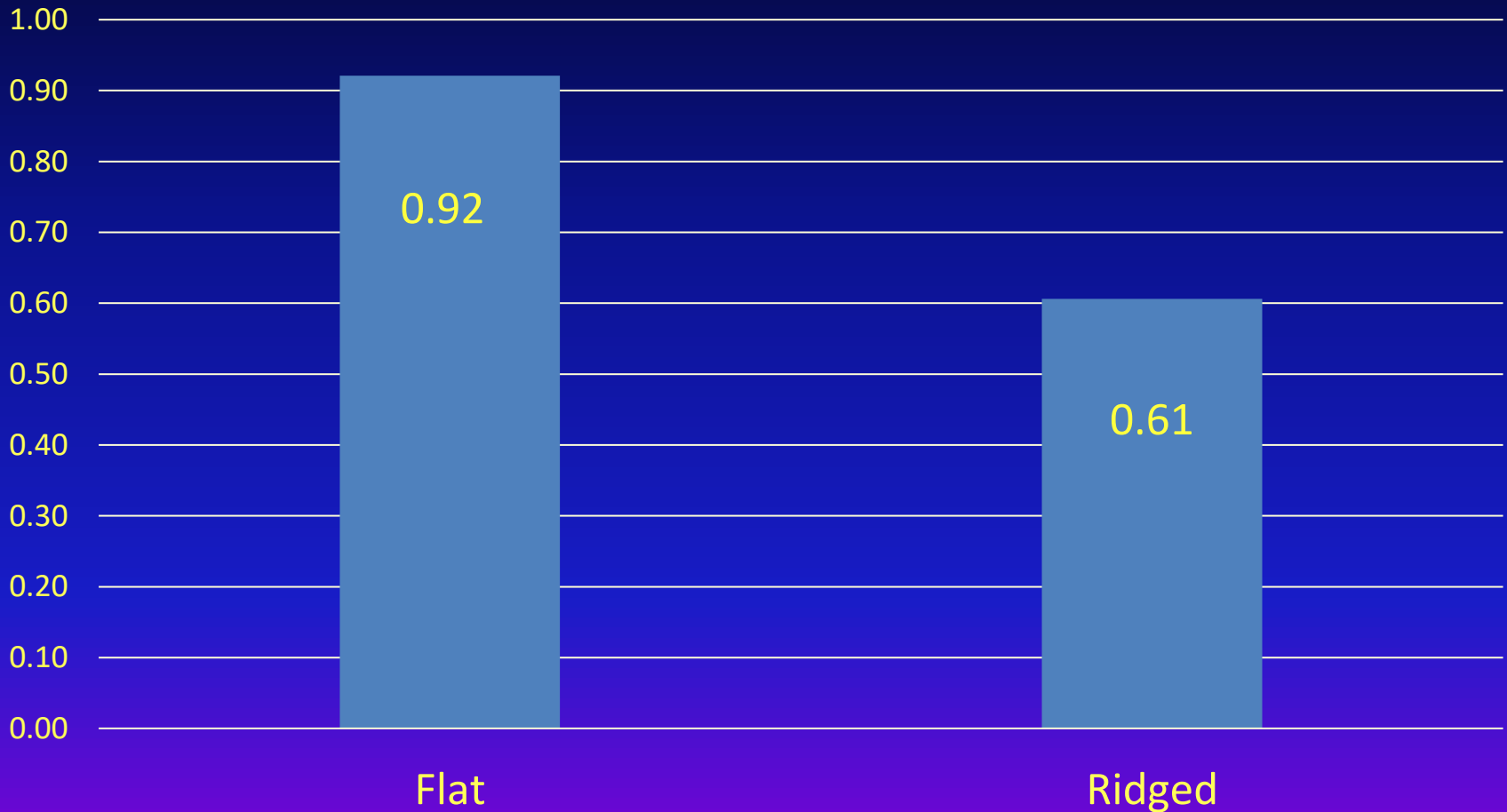
Stalk Rating



Crooked Stalks



1st Study % Straight



Late Crop Rating

KT D6

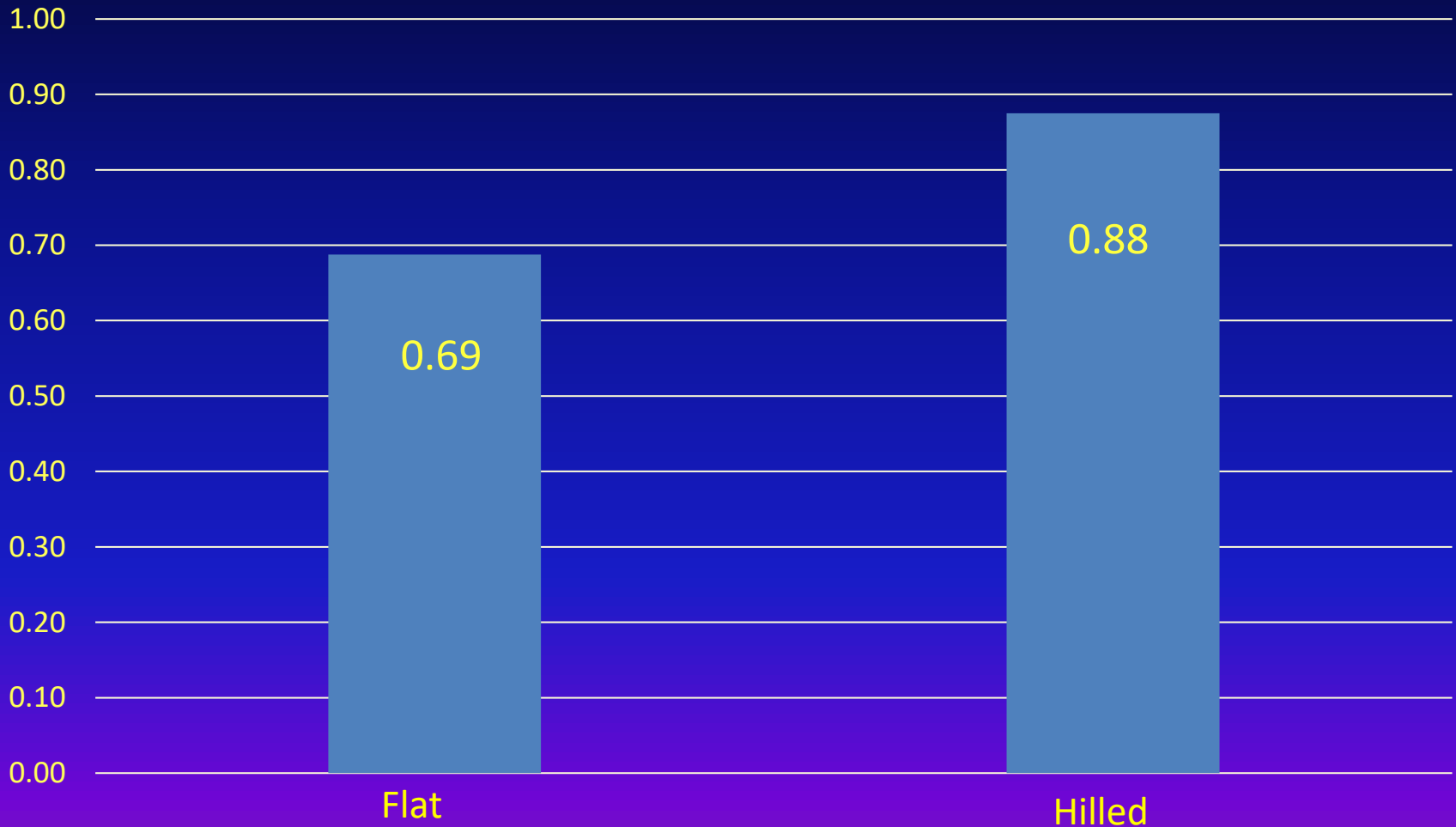
Set June 20



September 13

Cut Oct 8th

2nd Crop % Straight

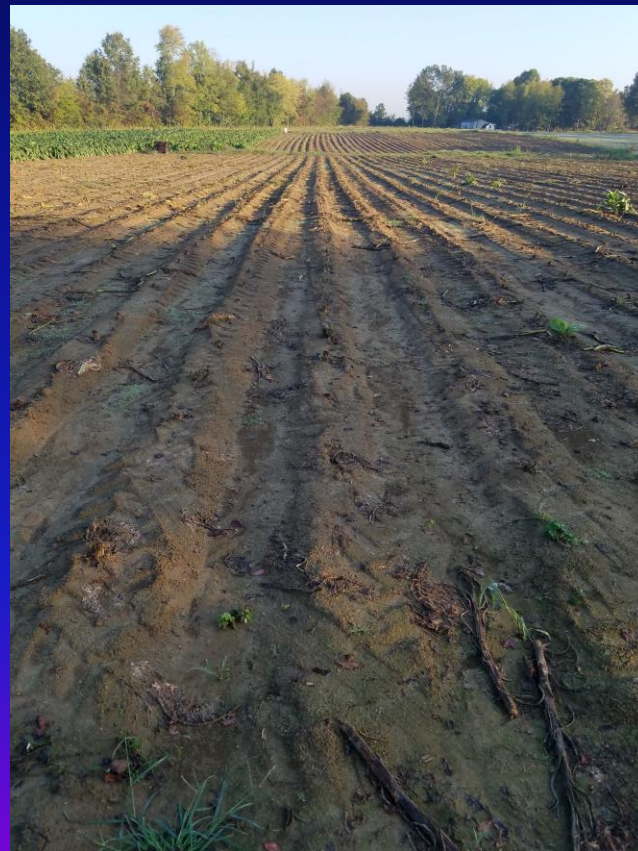


2nd Crop

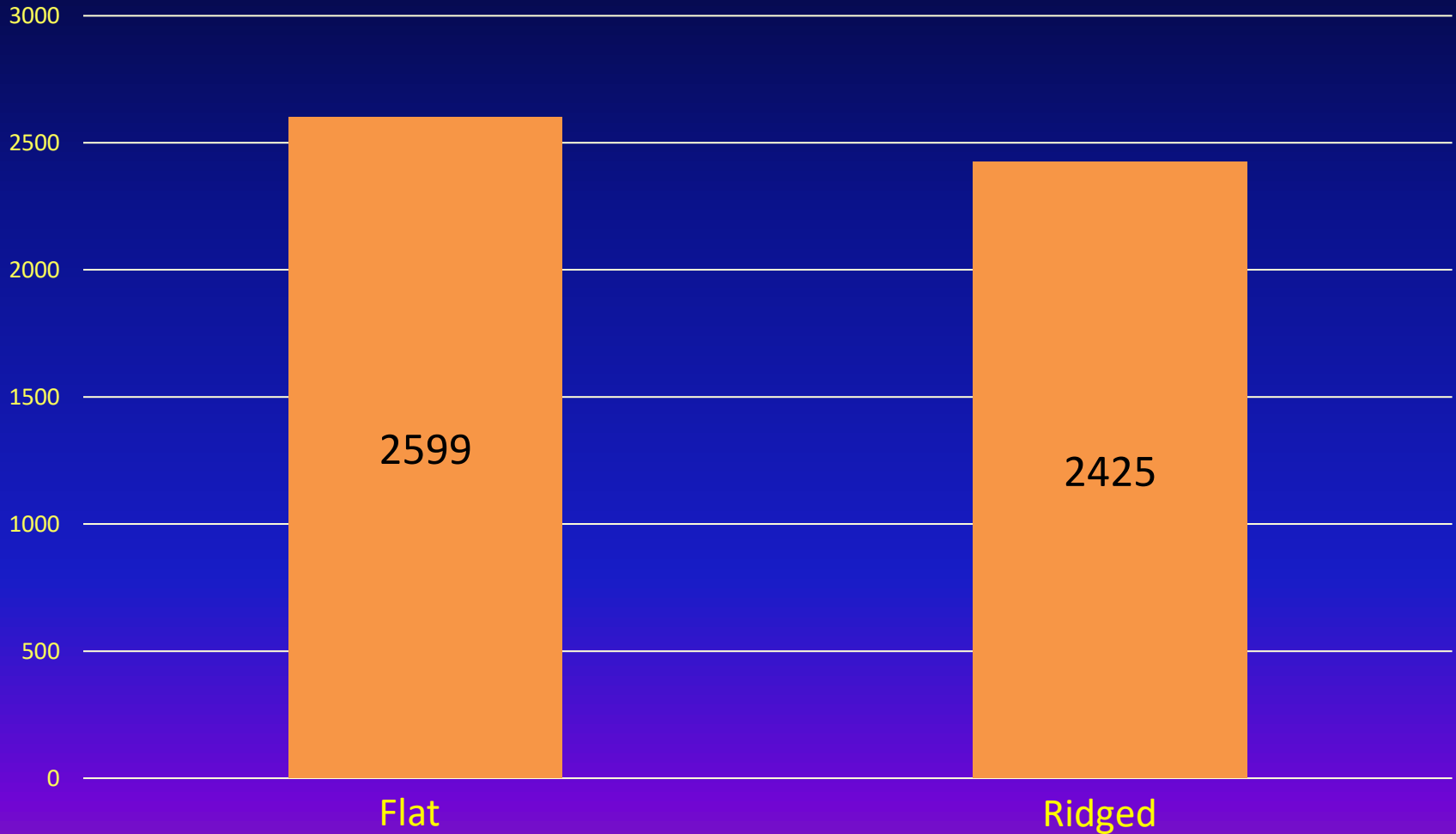
Flat Ground



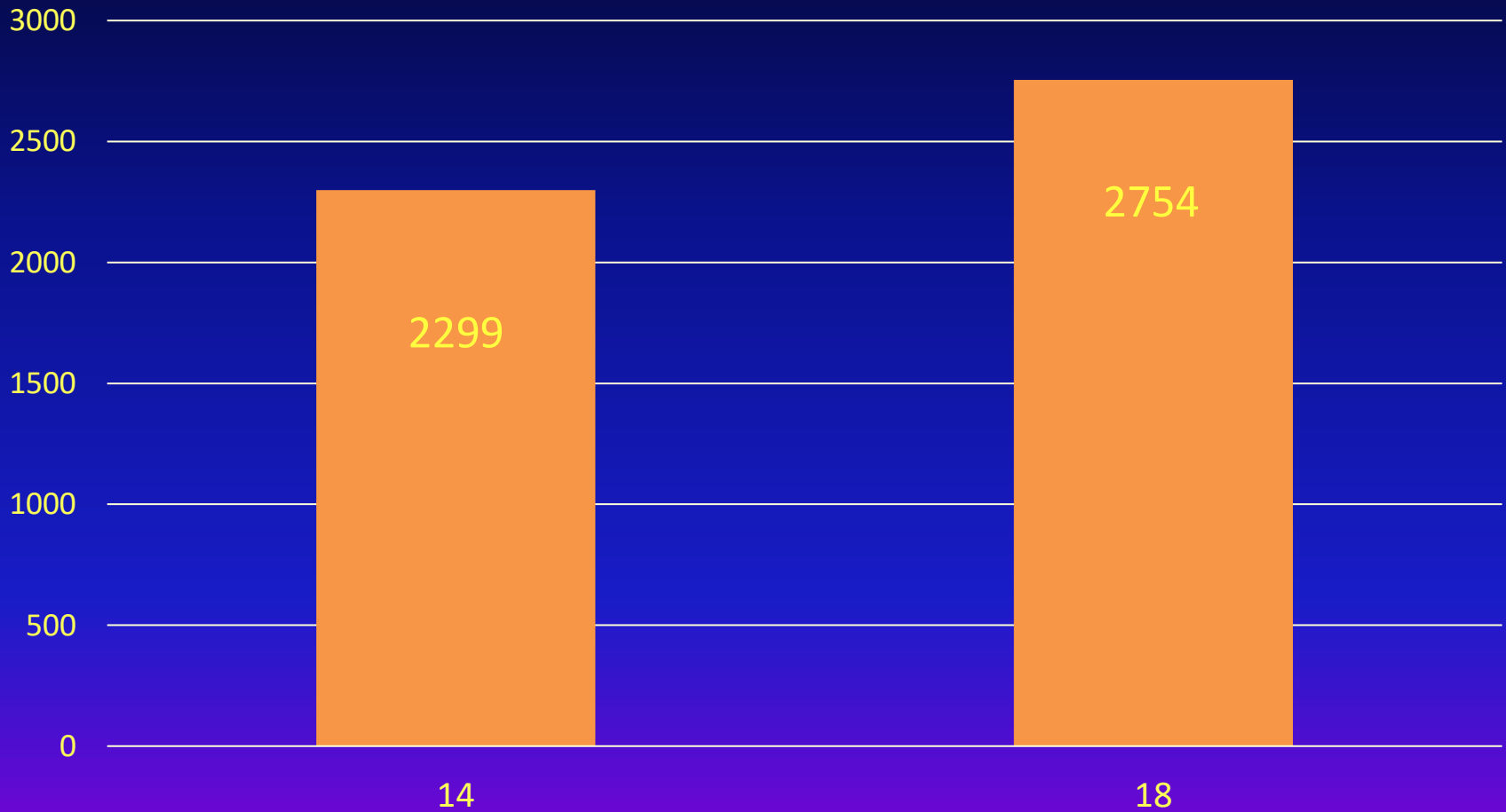
Hilled After Setting



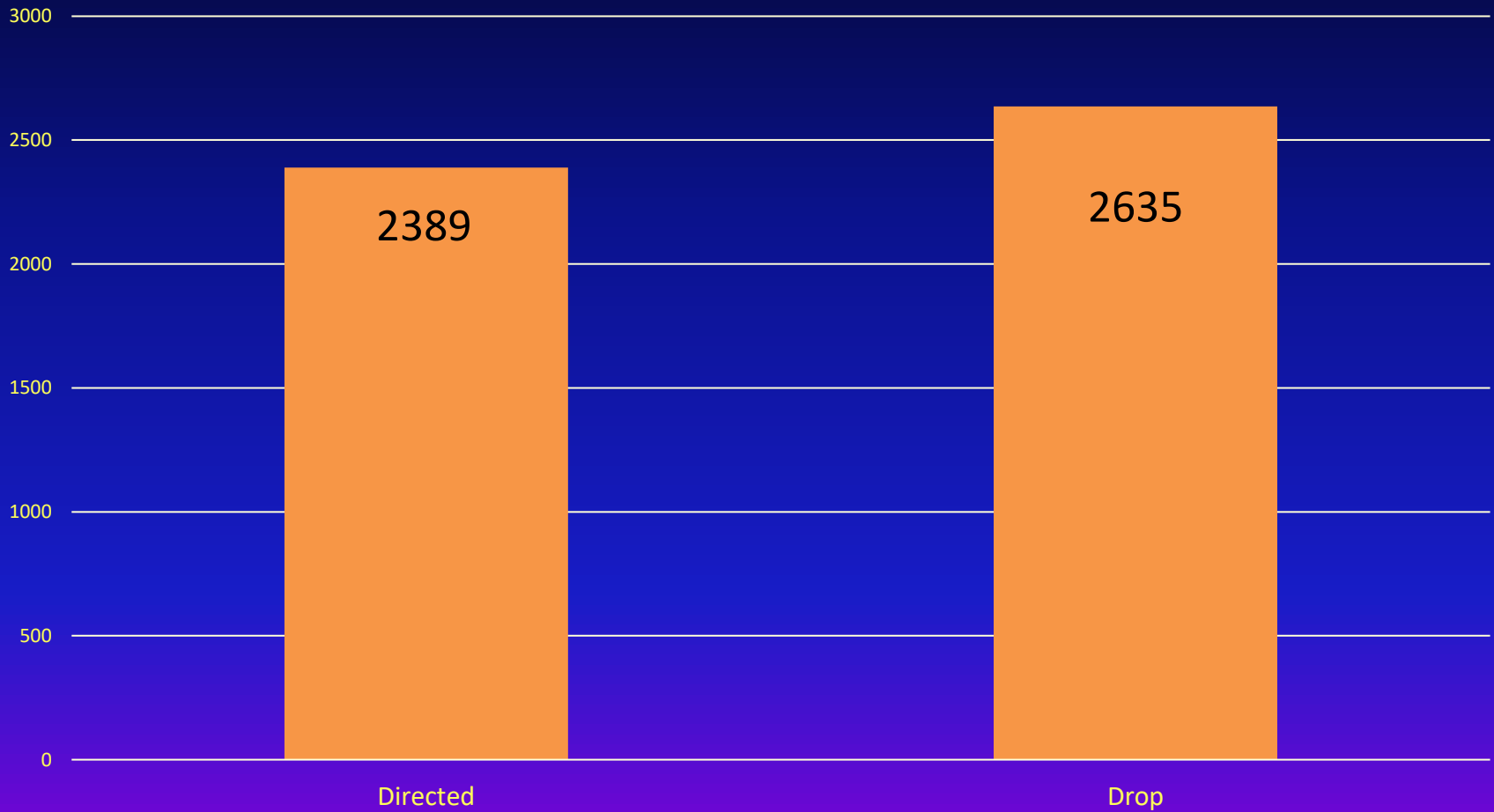
UT Total Yield- LBS / A



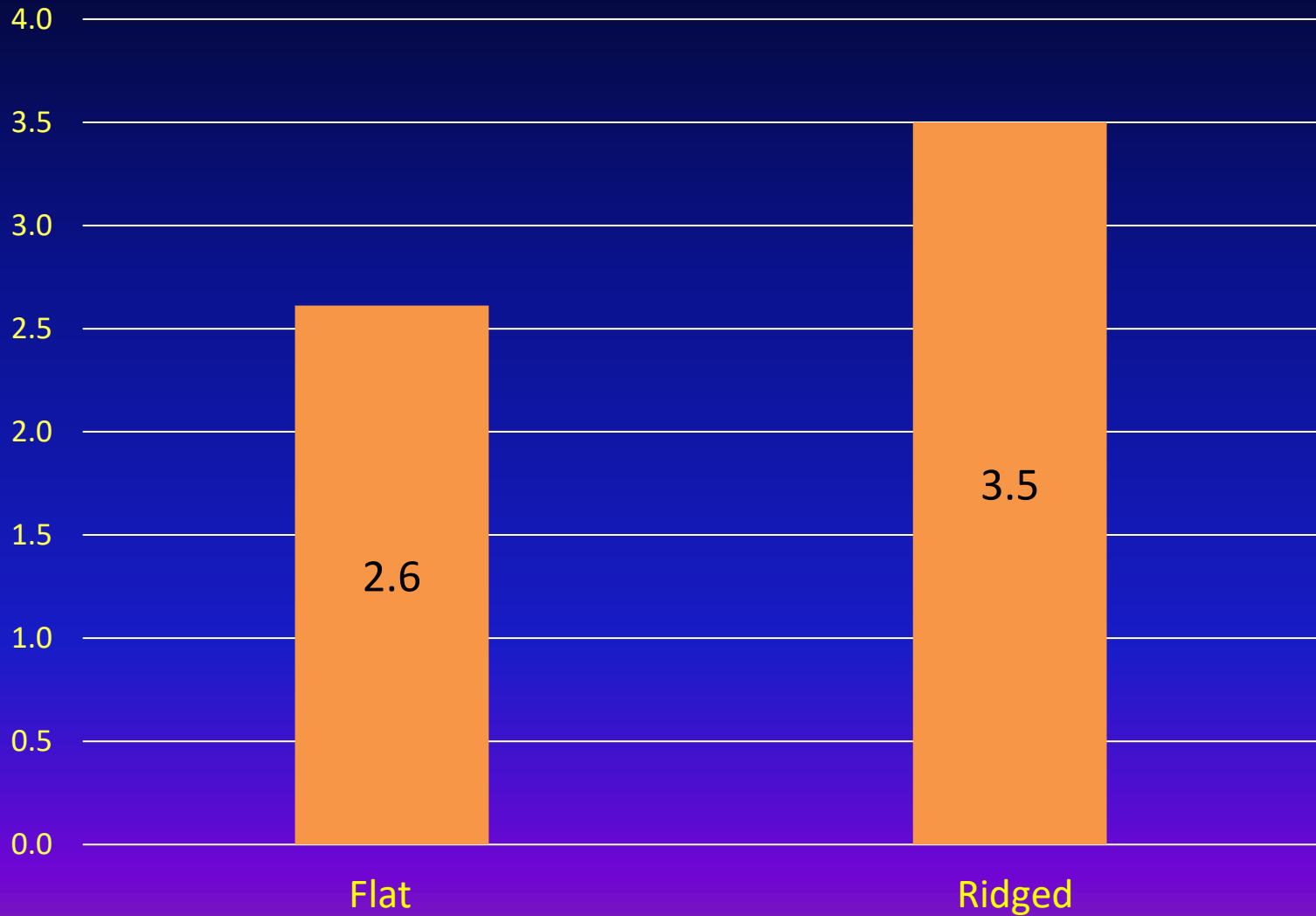
UT Total Yield- LBS / A



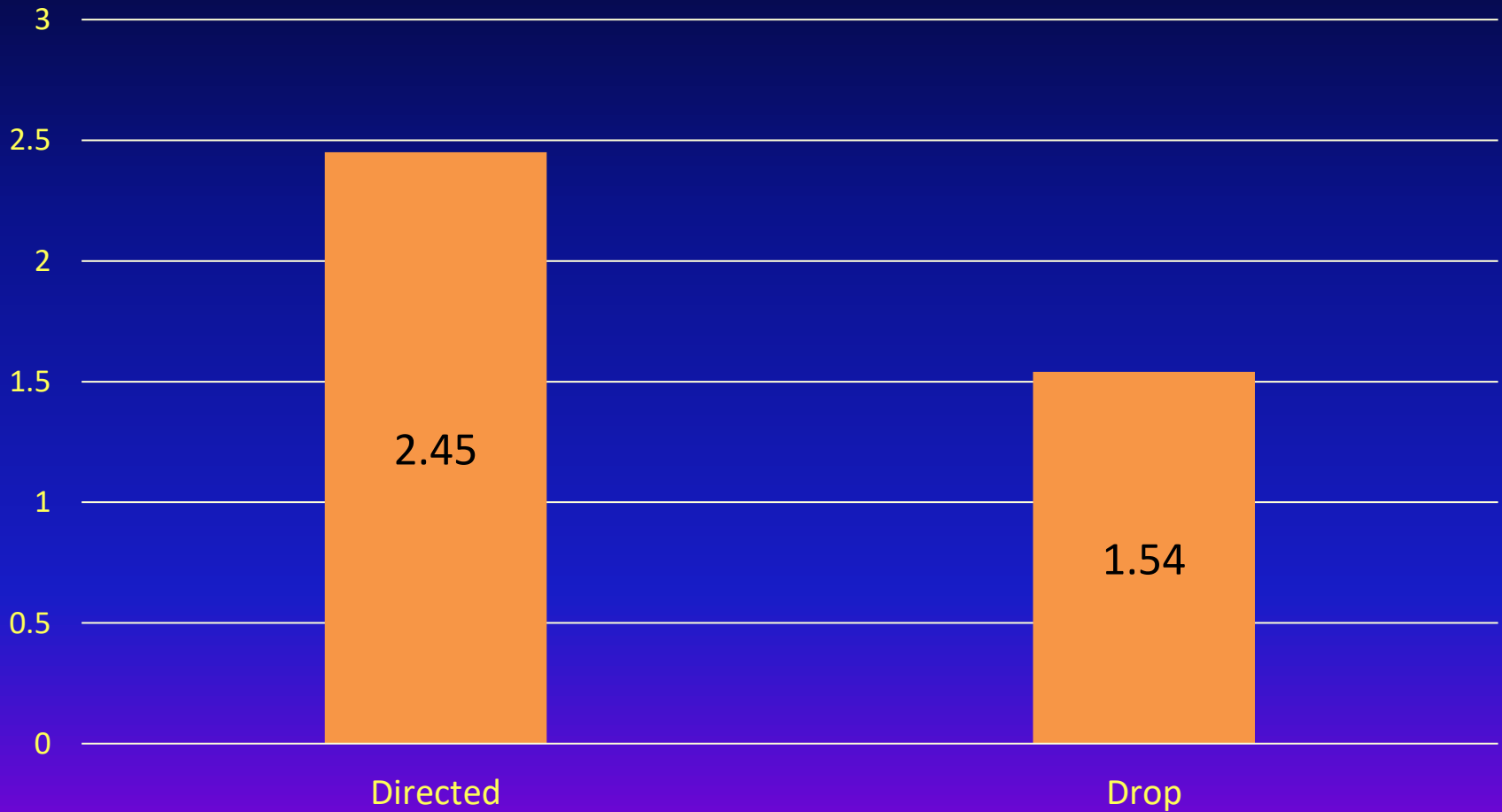
UT Total Yield- LBS / A



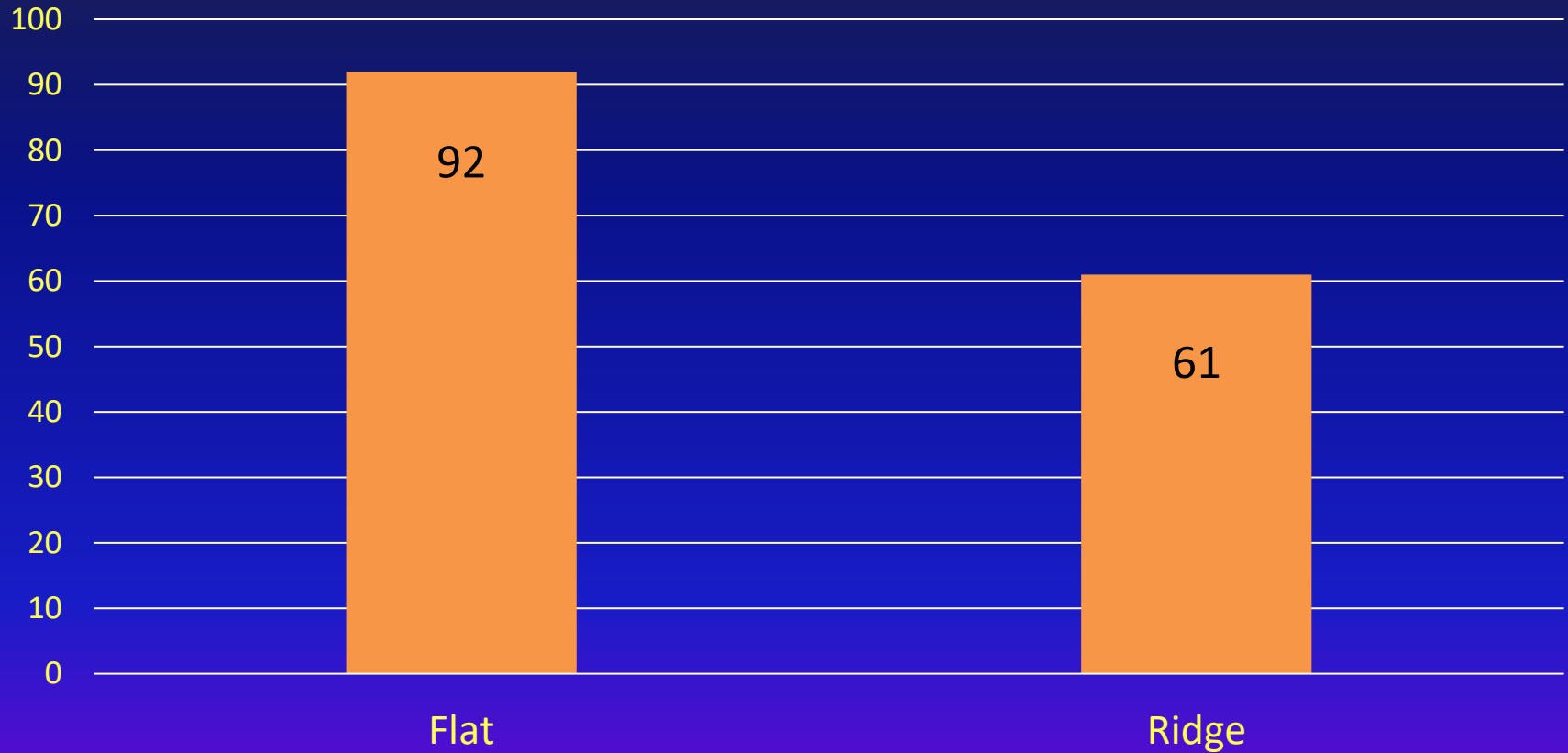
UT Sucker #/Plant



UT Sucker Weight/Plant



UT % Straight Plants



Summary

- Straighter plants on the flat vs. ridged ground
- Straighter plants with the hilled tobacco (test 2) vs. (test 1) where the tobacco was set on a ridge
- Better sucker control with drop-line application than broadcast or directed spray
- Setting on a ridge is more difficult than hilling the tobacco after it is set
- Hilled tobacco provided straighter plants than setting on a ridge

2022

- We are going to repeat this study in 2022
 - Plan to have 2 locations
 - Possibility of adding treatment of small ridge fb hilling.

Acknowledgements

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Questions?