

Mechanical Harvester Evaluation in Dark Tobacco

2008 – UKREC, Princeton, KY

- **Objective:**
Evaluate performance of 1-row walk-behind cutter/notcher harvester in dark tobacco.
- Performance compared on 2 dark varieties:
 - KT D4LC: upright
 - NL Madole LC: prostrate
- Data collected:
 - Mechanical harvest losses:
 - Broken leaves, missed/mangled stalks
 - Time required for mechanical harvest vs. hand harvest
 - Air-cured yield

*only cutter blade used for harvest, no notching. Tobacco laid on ground to field wilt with both harvest methods, spiked on sticks and hung by standard methods.



Mechanical Harvest vs. Hand Harvest

2008 – UKREC, Princeton, KY – Following Cutting



**Machine harvested
2 rows**



**Hand Harvested
4 rows**

Mechanical Harvest vs. Hand Harvest

2008 – UKREC, Princeton, KY – Small Plot Harvest Loss Evaluation
40 ft. plots

Variety	Harvest Method	Broken Leaves per 30 plants	Mangled or missed stalk per 30 plants
KT D4LC	Machine	34.3	1.3
KT D4LC	Hand	11.3	0
NL Madole LC	Machine	31.0	0.8
NL Madole LC	Hand	8.0	0

*Data collected immediately after picking up tobacco.

Mechanical Harvest vs. Hand Harvest

2008 – UKREC, Princeton, KY – Large Plot Harvest Loss Evaluation
200 ft. plots

Variety	Harvest Method	Broken Leaves per 150 plants (25 sticks)	Mangled or missed stalk per 150 plants (25 sticks)	Time to cut 150 plants (25 sticks)	Time per plant
KT D4LC	Machine	34.3	1.3	3 min, 19 sec	1.33 sec/pl
NL Madole LC	Hand	8.0	0	6 min, 39 sec	2.66 sec/pl

*Data collected immediately after picking up tobacco.

Mechanical Harvest vs. Hand Harvest

2008 – UKREC, Princeton, KY – Following Pick Up



**Machine harvested
2 rows**



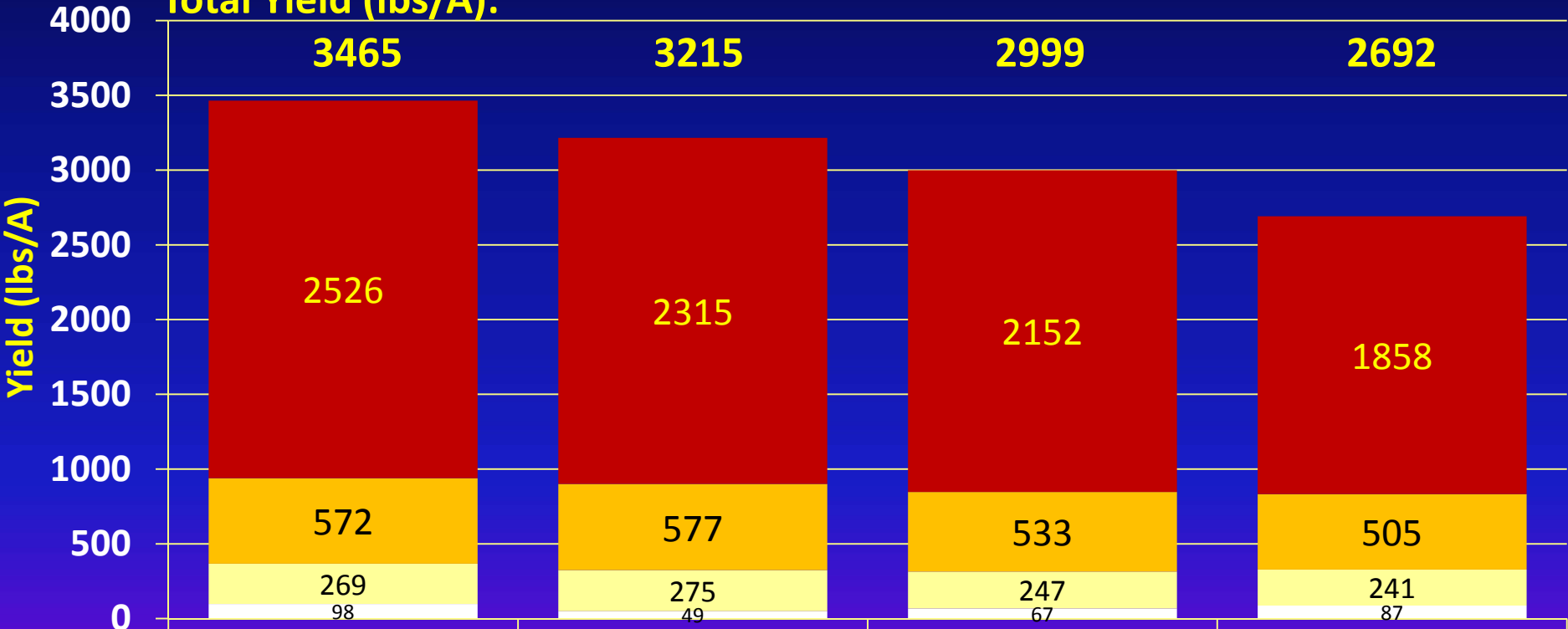
**Hand Harvested
2 rows**

Mechanical Harvester Evaluation in Dark Tobacco

2008 – UKREC, Princeton, KY – Dark Air-Cured Yield

■ Trash
 ■ Lug
 ■ Second
 ■ Leaf

Total Yield (lbs/A):



KT D4
Hand Harv

KT D4
Machine Harv

NL Mad
Hand Harv

NL Mad
Machine Harv

% of Hand Harvest:

93

90

% Harvest Loss:

7

10