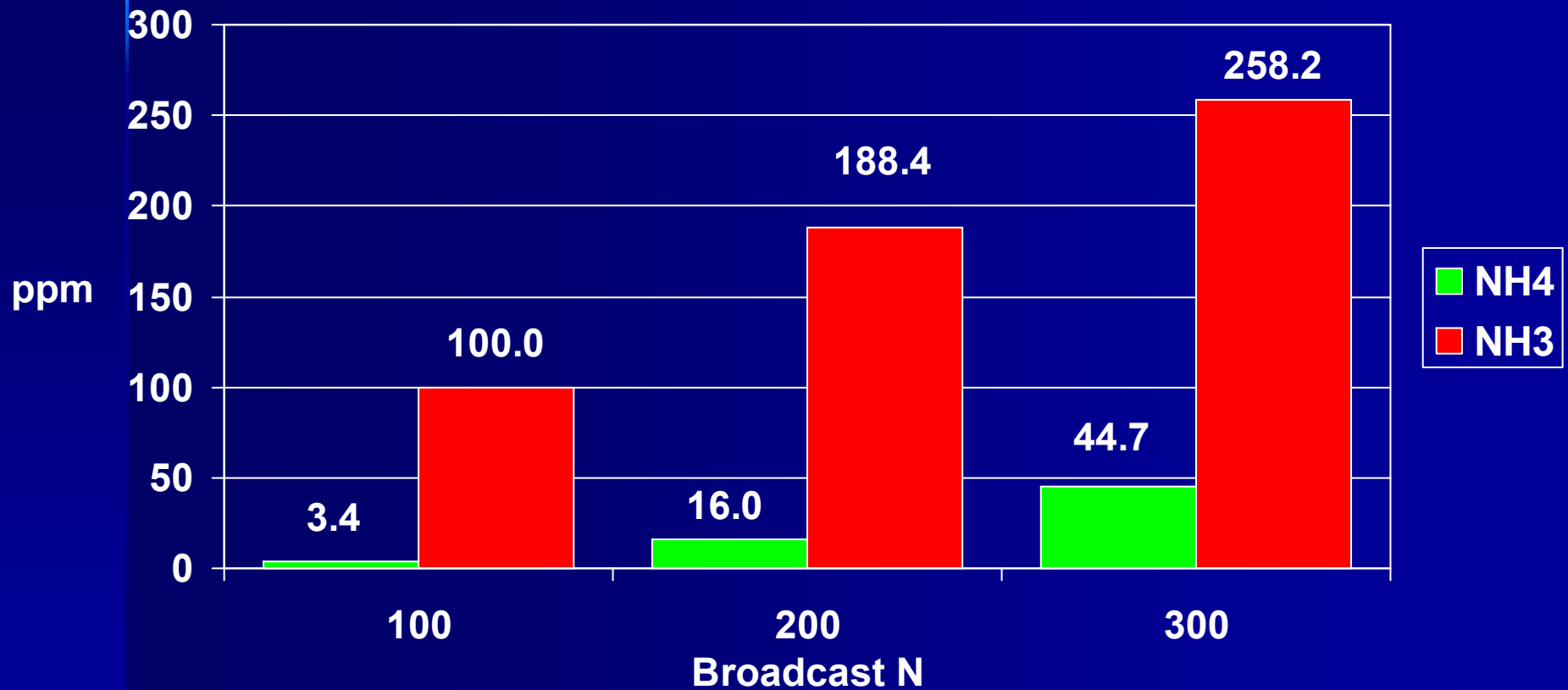


Fertility & Curing Studies

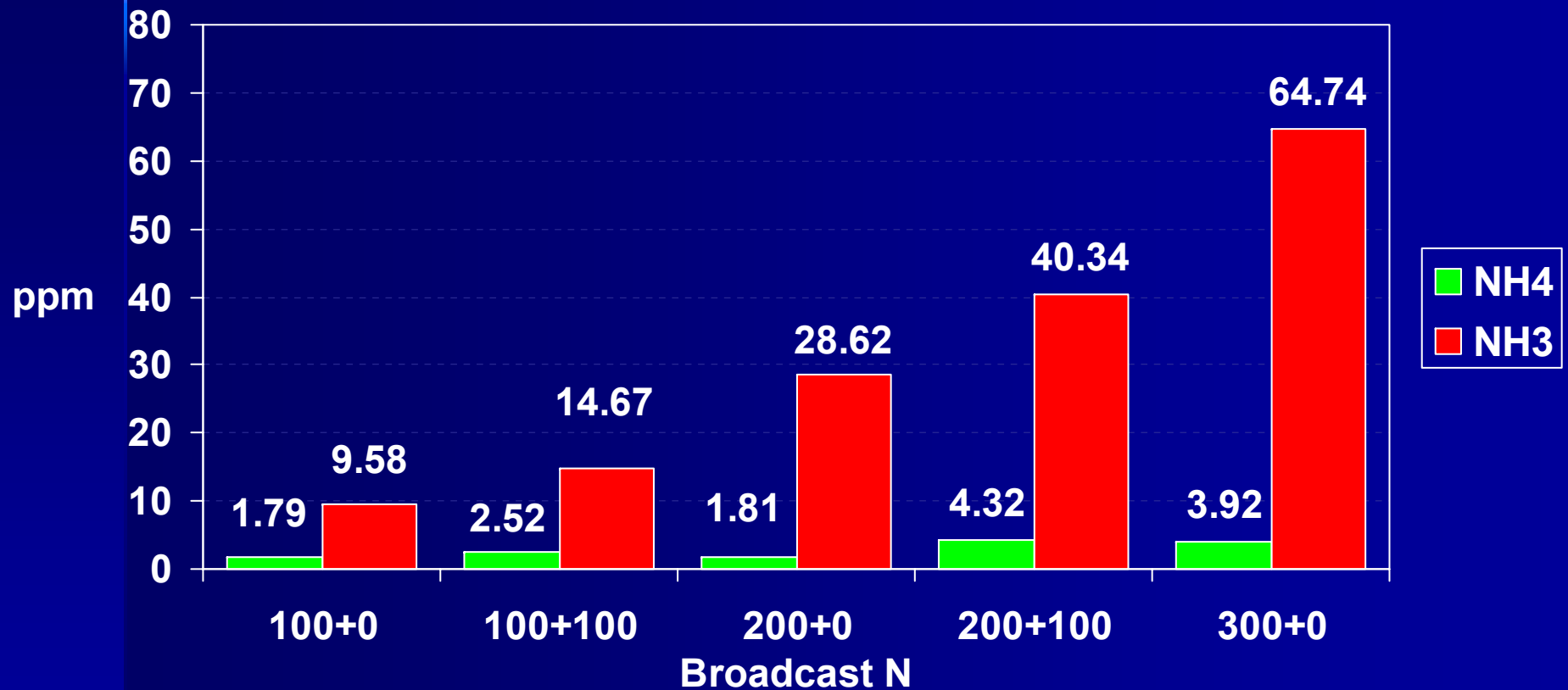
Studies were designed to evaluate the effects of nitrogen (N) rate, N source and curing on TSNA formation in burley tobacco. The combined N rate and curing study was conducted at the UK Woodford Co. Farm (ARC) and the N source study was conducted at Robert Eads Farm in Eastern Fayette Co. Evaluation of the effects of N rates on soil nitrates and ammonium levels revealed a linear pattern both before sidedressing and after harvest. Yields were non-responsive to N rates. However, the highest initial rate produced the lowest yield. TSNA including NNN, NAT & Total TSNA's increased with increasing N rate. Sidedressing did not significantly increase TSNA levels. N source at broadcast and sidedressing did not effect TSNA levels.

Influence of Broadcast Nitrogen on Ammonium & Nitrate Soil Levels Prior to Sidedressing



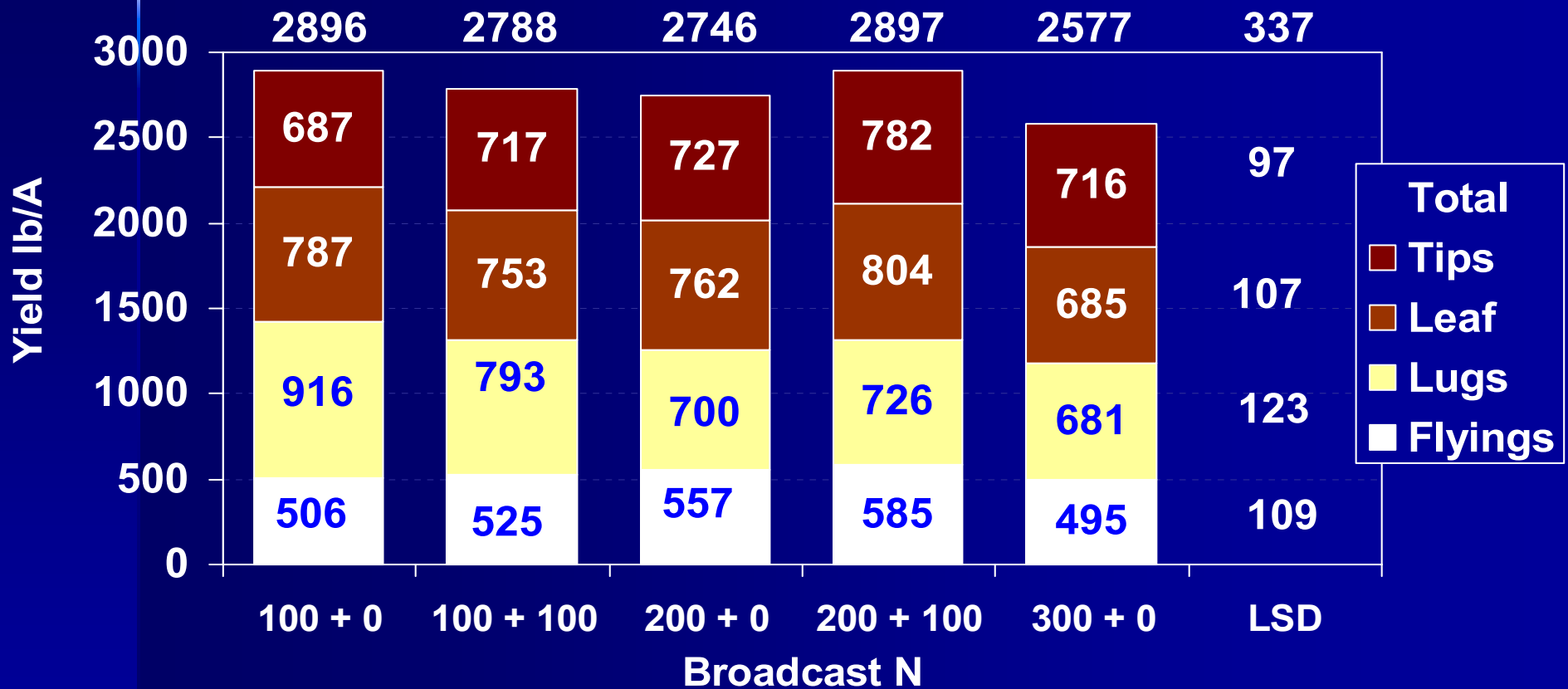
N source = 28% UAN

Influence of Nitrogen Rate on Ammonium & Nitrate Soil Levels After Harvest



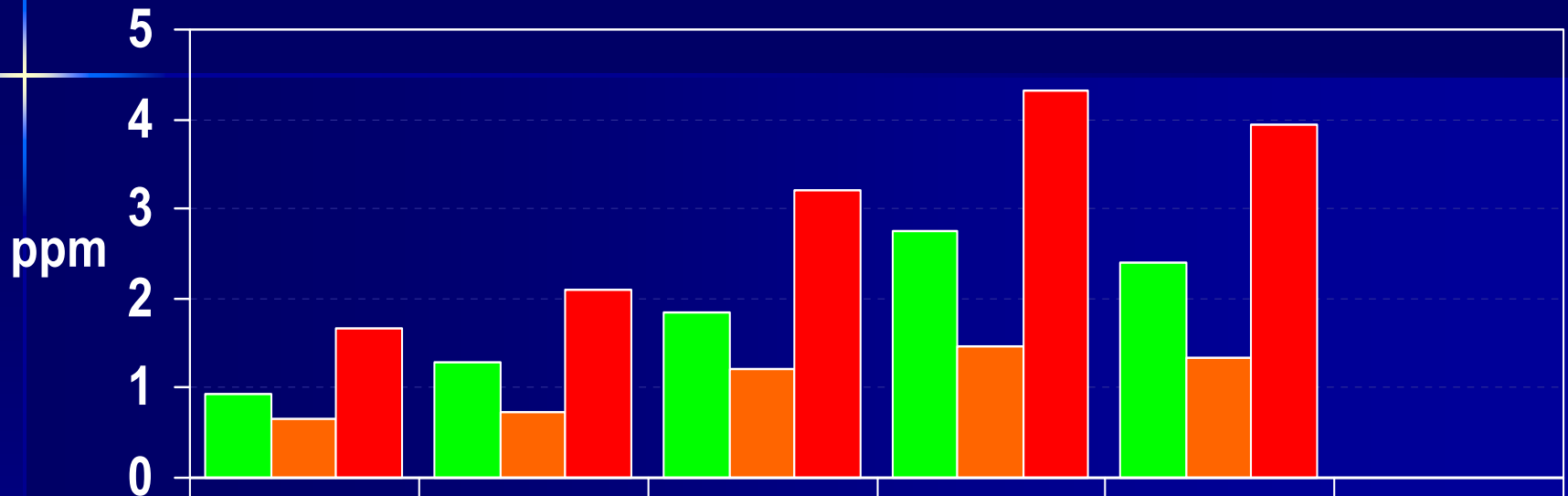
N source = 28% UAN Broadcast units + Ammonium Nitrate Sidedressed units

Influence of Nitrogen Rate on Burley Yield – UK Woodford Co. Farm



N source = 28% UAN Broadcast units + Ammonium Nitrate Sidedressed units

Influence of Nitrogen Rate on TSNA Formation

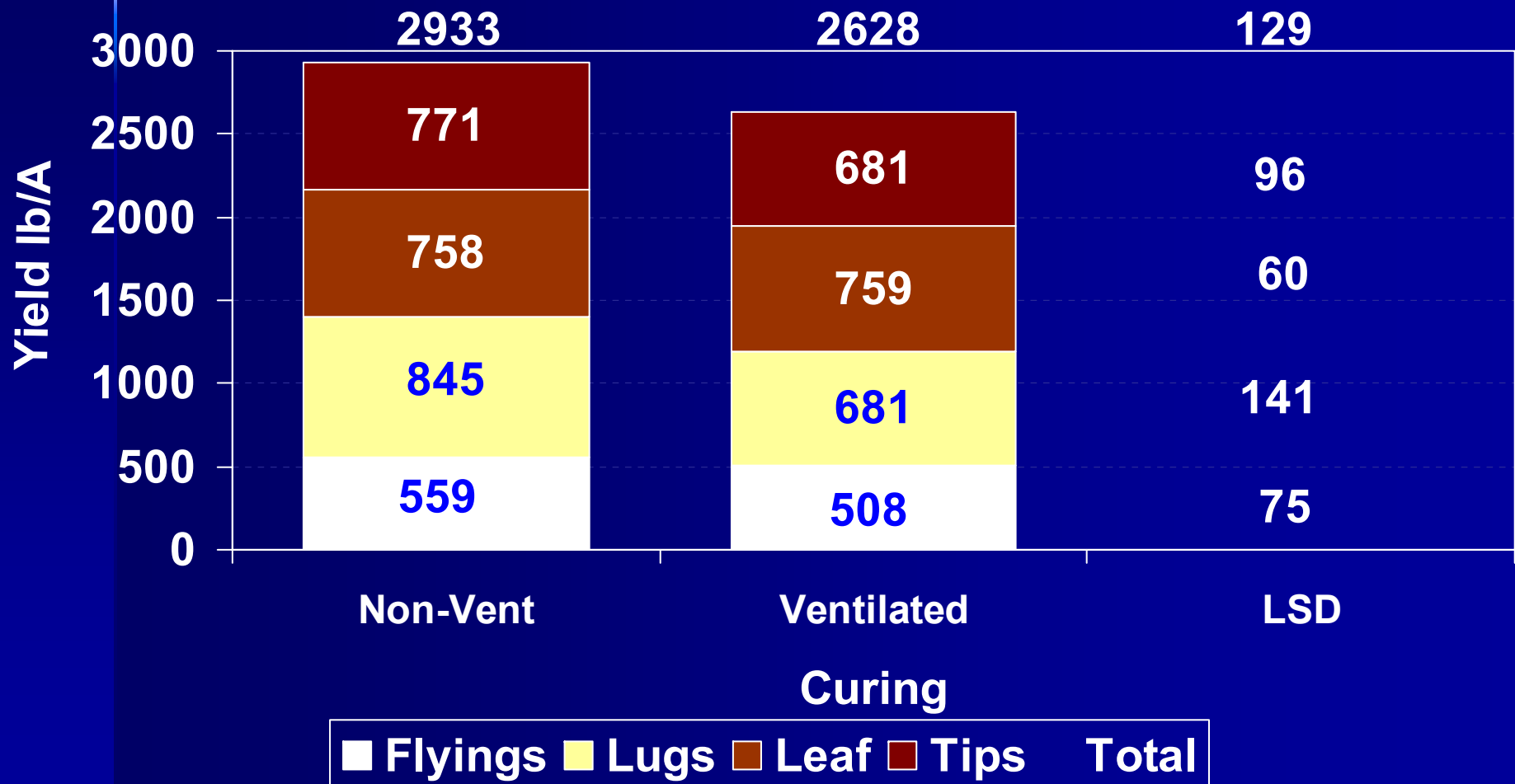


| Broadcast N | 100+0 | 100+100 | 200+0 | 200+100 | 300+0 | LSD |
|-------------|-------|---------|-------|---------|-------|------|
| NNN | 0.94 | 1.28 | 1.85 | 2.76 | 2.40 | 1.13 |
| NAT | 0.66 | 0.74 | 1.21 | 1.46 | 1.35 | 0.59 |
| Total TSNA | 1.67 | 2.09 | 3.22 | 4.33 | 3.95 | 1.62 |

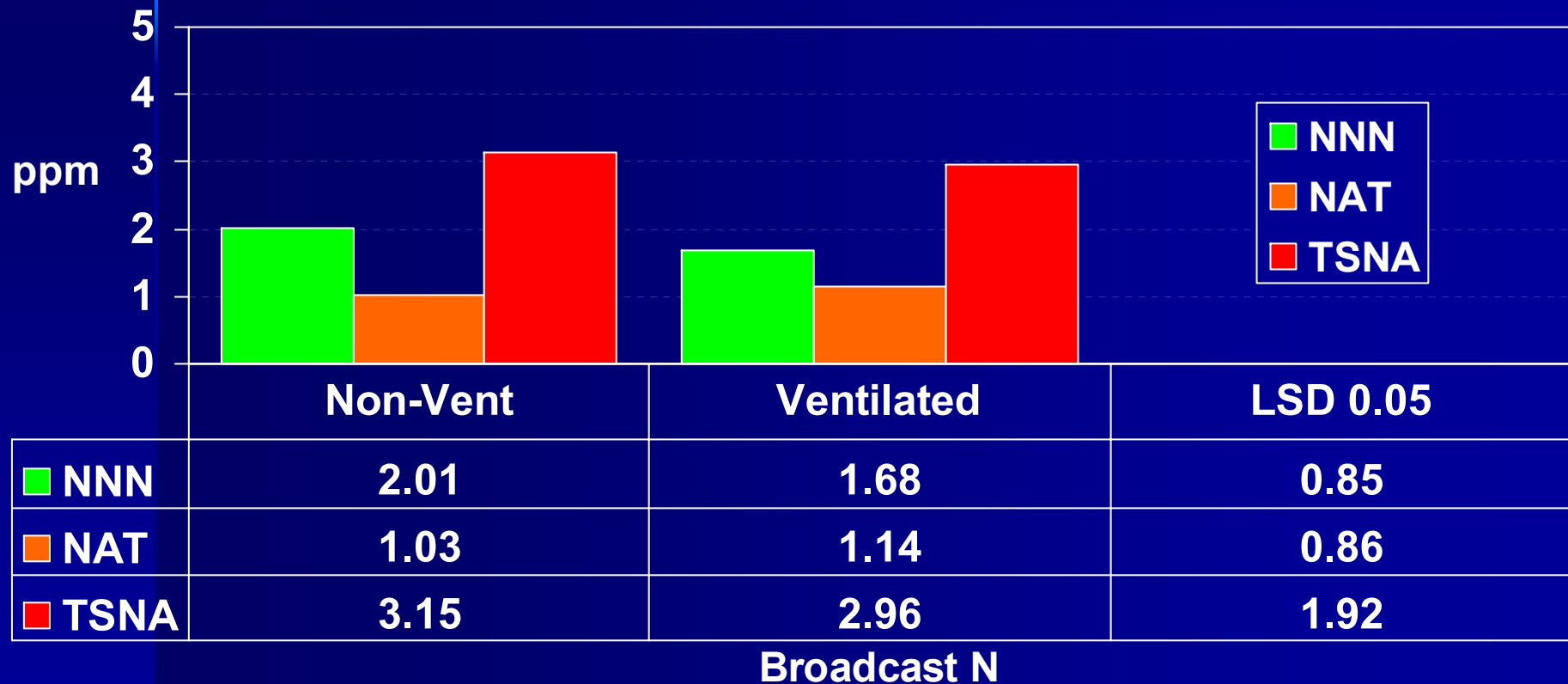
■ NNN ■ NAT ■ Total TSNA

N source = 28% UAN Broadcast units +Ammonium Nitrate Sidedressed units

Influence of Ventilation During Curing on Burley Yield – UK Woodford Co. Farm

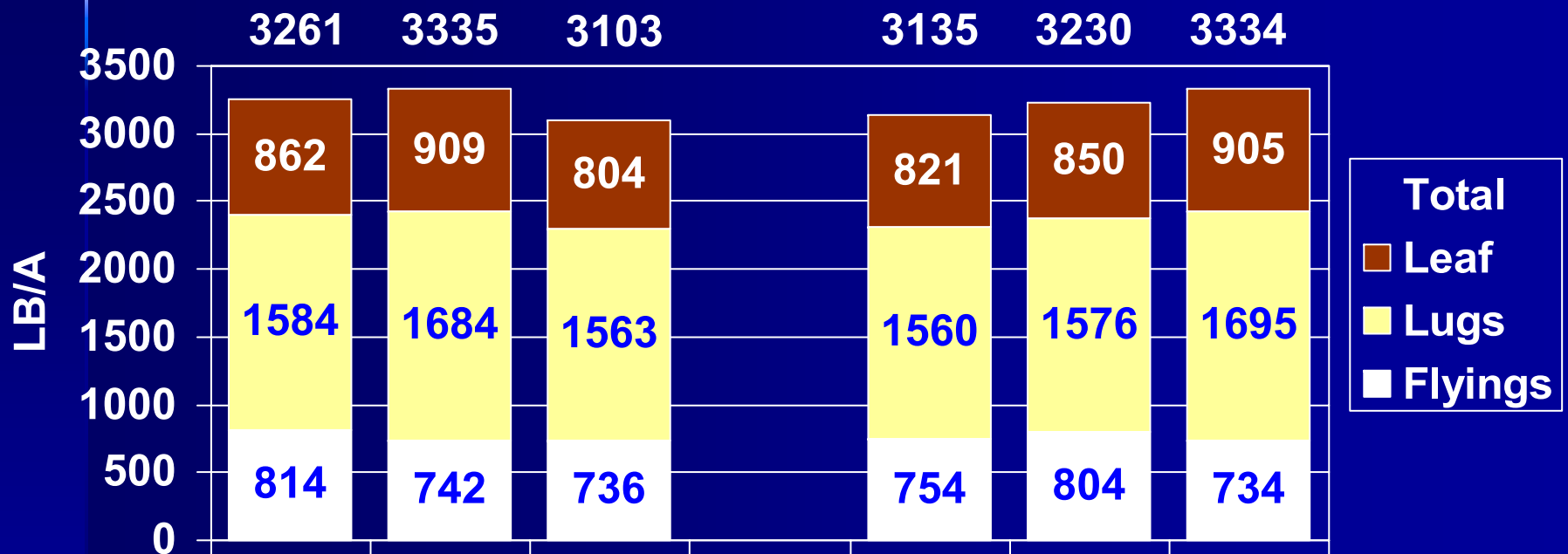


Influence of Ventilation During Curing on Burley Yield – UK Woodford Co. Farm



N source = 28% UAN Broadcast units + Ammonium Nitrate Sidedressed units

Effect of Broadcast & Sidedress Nitrogen Source on Burley Yield Fayette County – Robert Eads Farm

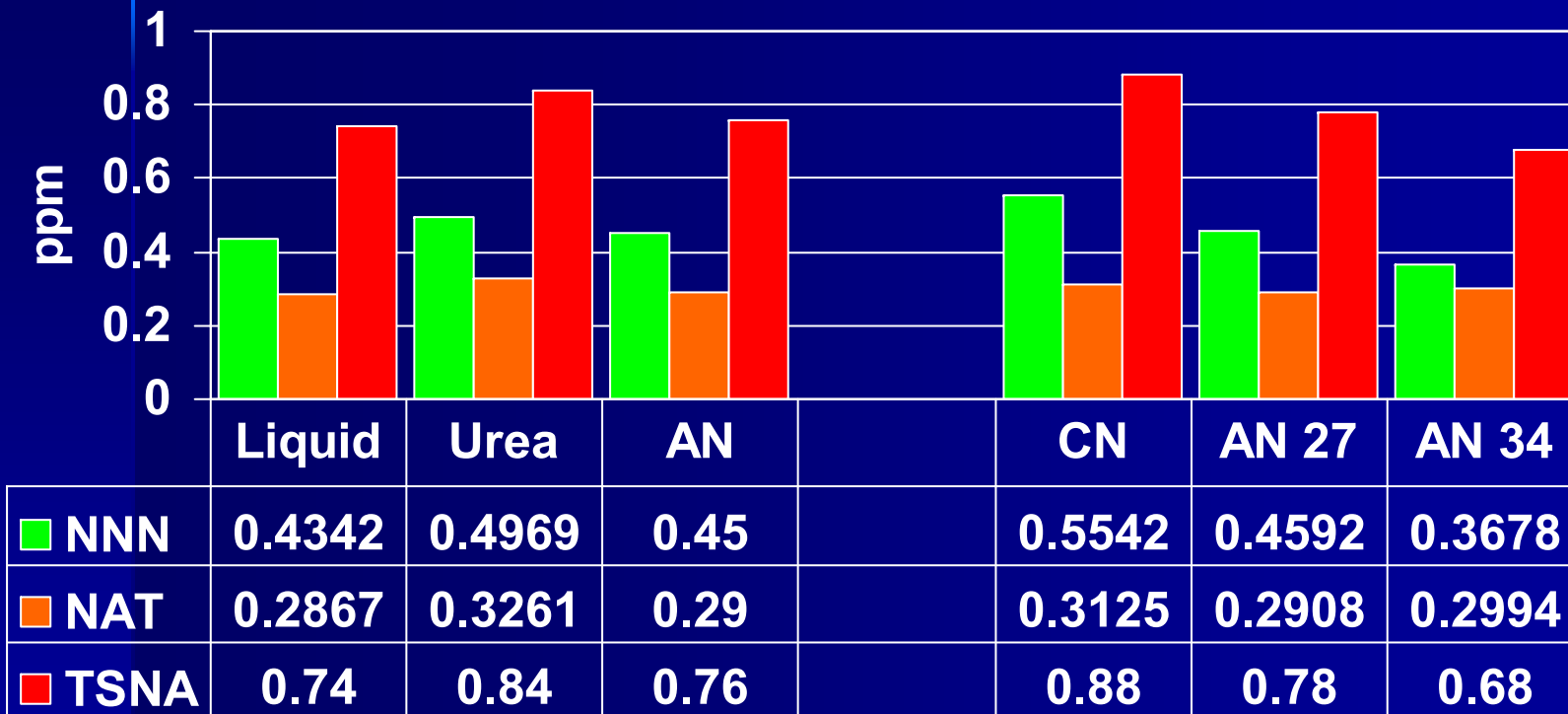


Broadcast (150 units/ acre)

Sidedress (100 Units/ acre)

AN = Ammonium Nitrate, CN = Calcium Nitrate

Effect of Broadcast & Sidedress Nitrogen Source on Burley TSNA Formation – Robert Eads Farm



■ NNN ■ NAT ■ TSNA

Broadcast (150 units/ acre)

Sidedress (100 Units/ acre)

AN = Ammonium Nitrate, CN = Calcium Nitrate