Collaborative Research Project
by
Centurion University of Technology and Management, Odisha, India
and
Harvest Harmonics International Corporation, Florida, USA

Centurion University
Shaping Lives...
Empowering Communities...

HARVEST HARMONICS™

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POPS Trial in Maize

Statistical Design : Split Plot
Crop : Maize
No. of Replication : 03
Main plot : 02
Subplot : 07

Main plot treatments

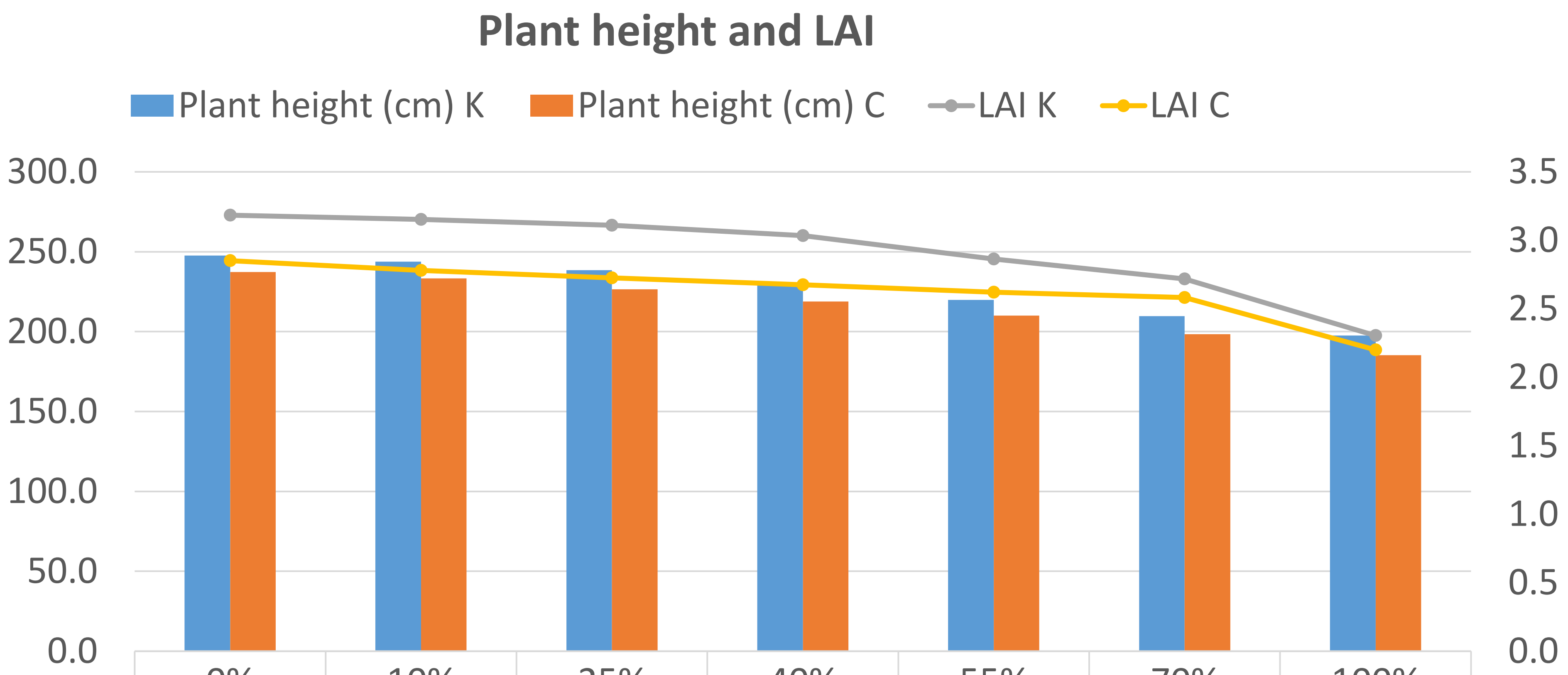
K: KPCB Treatment
C: Control

Subplot Treatments

T1: 0% chemical reduction
T2: 10% chemical reduction
T3: 25% chemical reduction
T4: 40% chemical reduction
T5: 55% chemical reduction
T6: 70% chemical reduction
T7: 100% chemical reduction

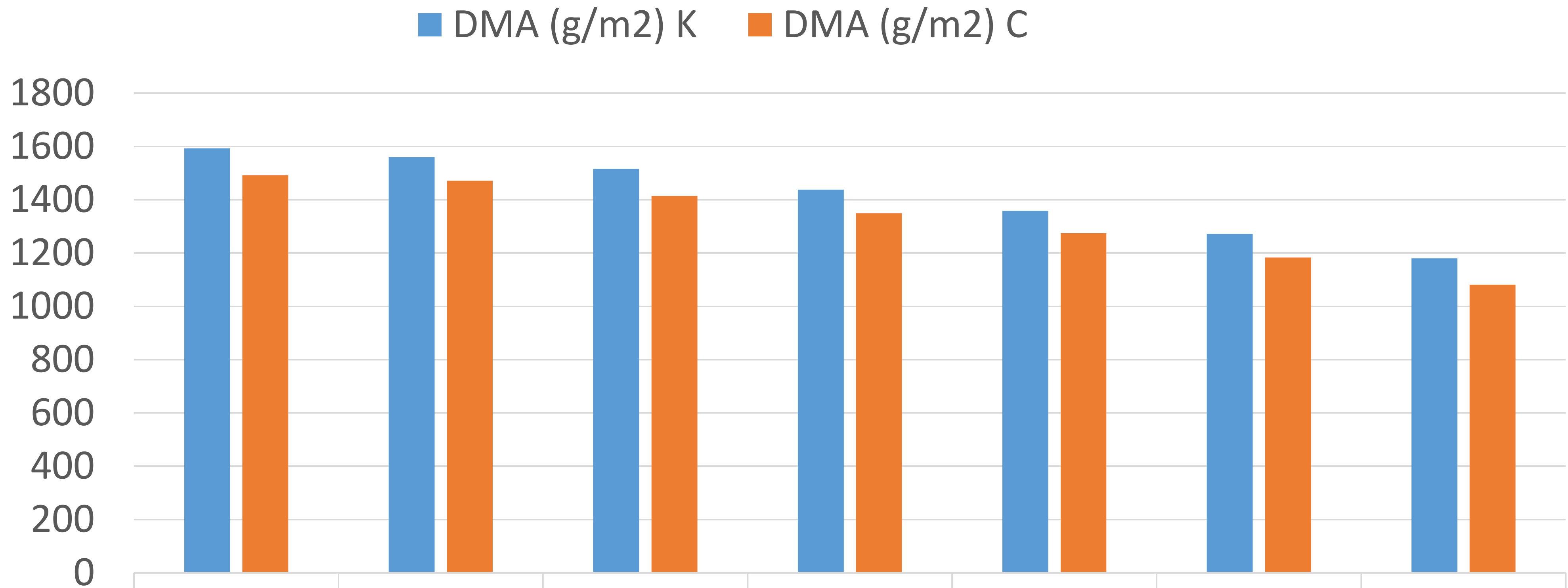
Aerial Orthomosaic Image of the Experimental Site by Drone

Treatment	Control (C)	KPCB (K)
55%		
100%		
40%		
10%		
70%		
0%		
25%		

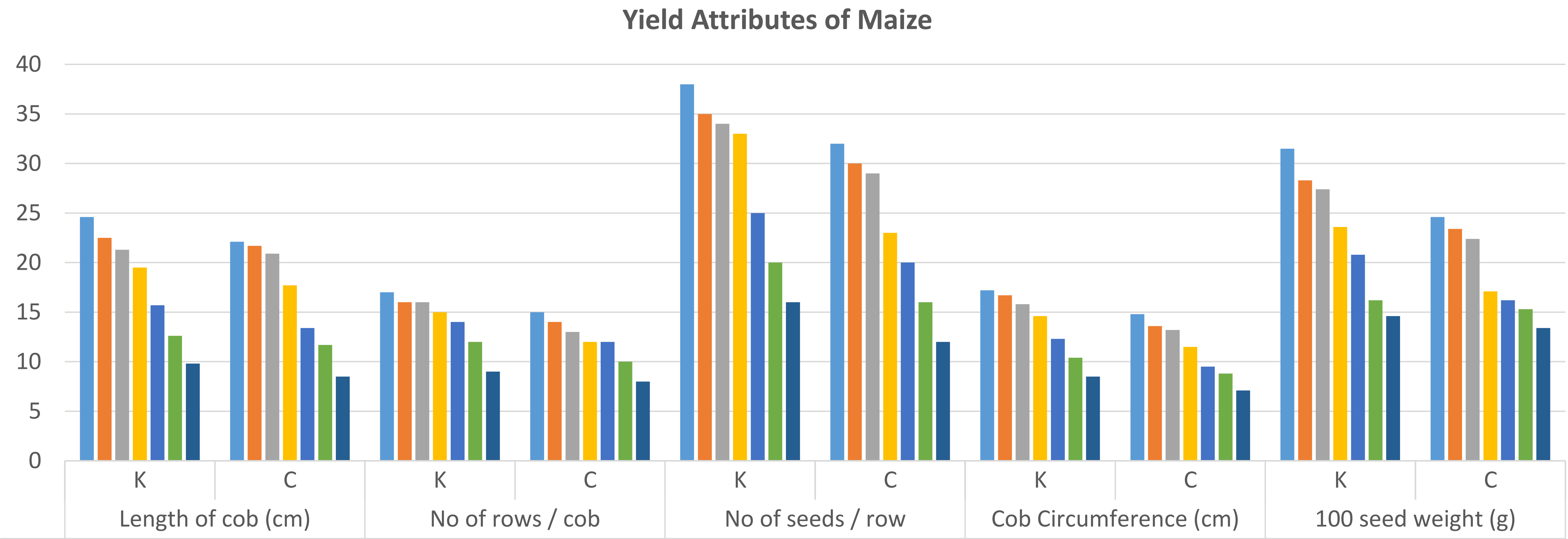


	0%	10%	25%	40%	55%	70%	100%
Plant height (cm) K	247.7	243.8	238.4	229.4	219.9	209.7	197.5
Plant height (cm) C	237.4	233.2	226.5	218.9	210.0	198.4	185.3
LAI K	3.2	3.2	3.1	3.0	2.9	2.7	2.3
LAI C	2.9	2.8	2.7	2.7	2.6	2.6	2.2

Dry matter accumulation per sq. m

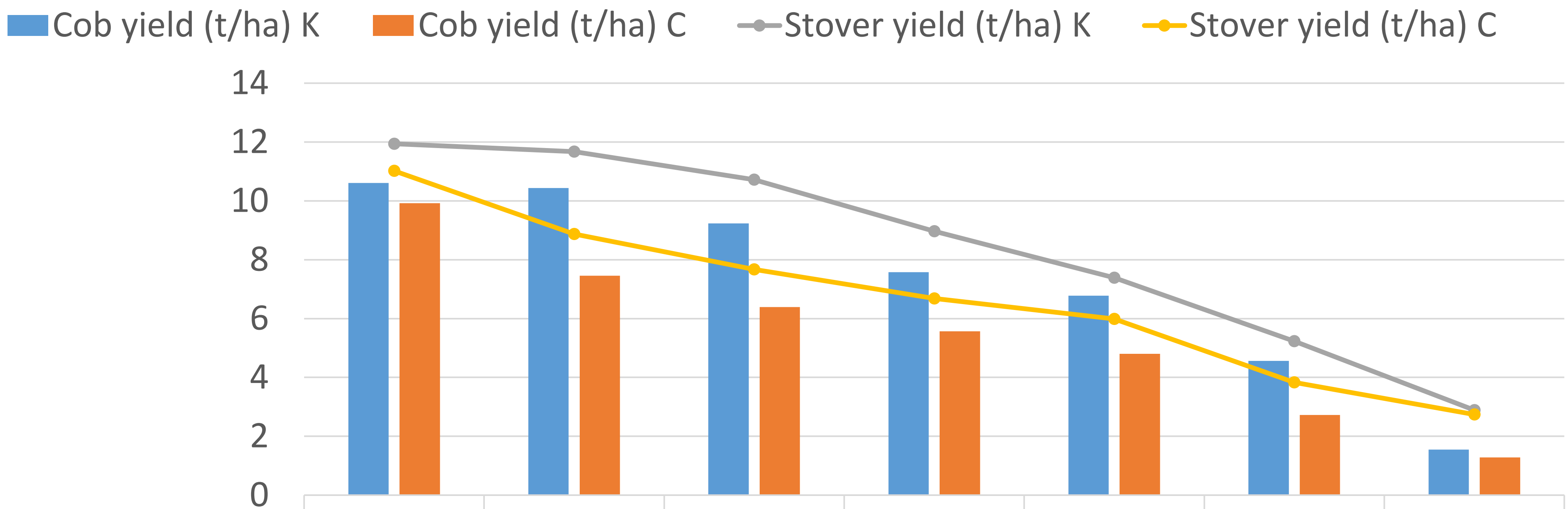


	0%	10%	25%	40%	55%	70%	100%
DMA (g/m2) K	1593.3	1559.7	1515.9	1438.1	1357.7	1271.6	1180.0
DMA (g/m2) C	1491.9	1470.9	1414.1	1349.3	1274.0	1182.8	1081.3



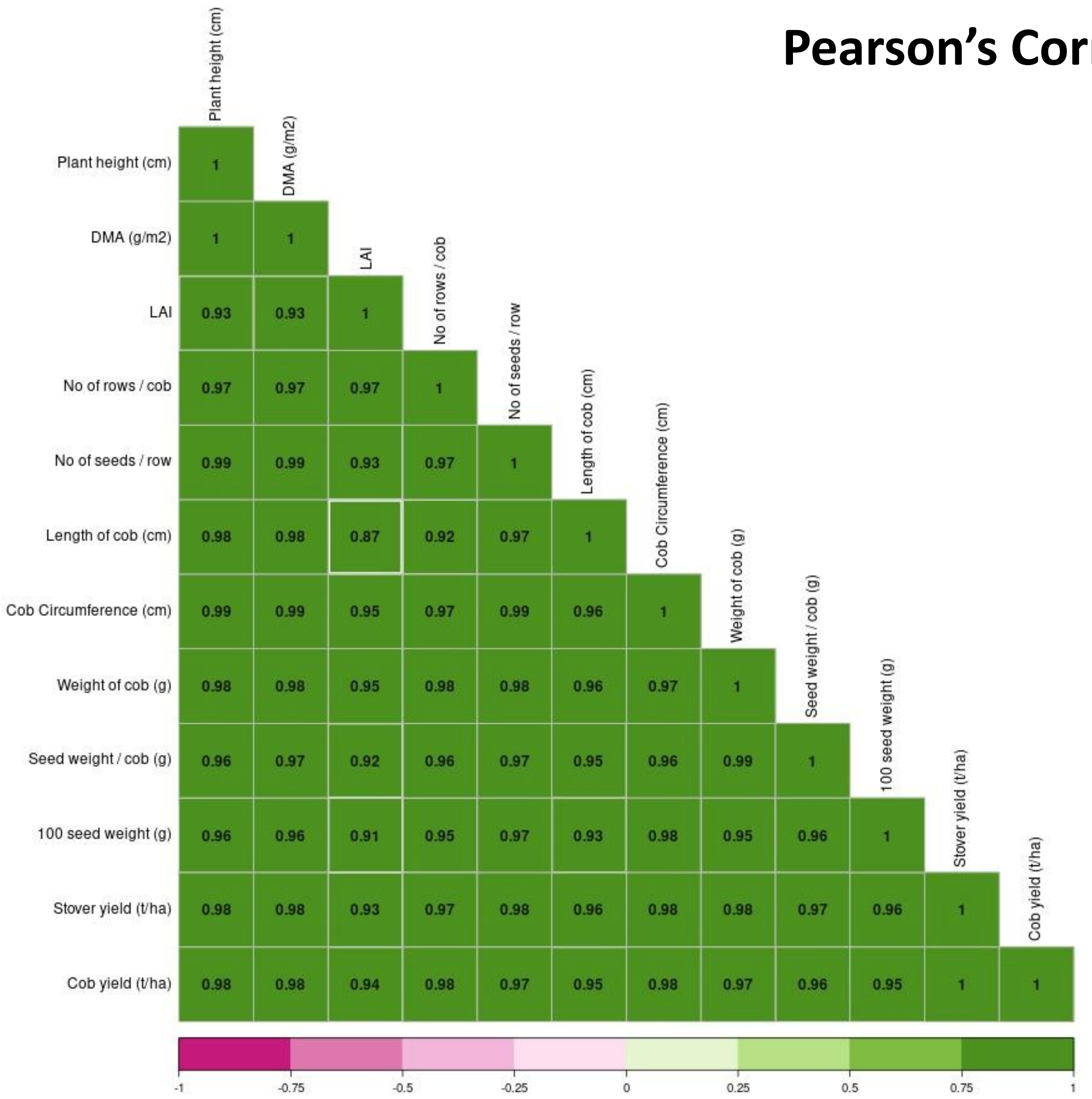
	Length of cob (cm) K	Length of cob (cm) C	No of rows / cob K	No of rows / cob C	No of seeds / row K	No of seeds / row C	Cob Circumference (cm) K	Cob Circumference (cm) C	100 seed weight (g) K	100 seed weight (g) C
0%	24.6	22.1	17.00	15.00	38.00	32.00	17.20	14.80	31.50	24.60
10%	22.5	21.7	16.00	14.00	35.00	30.00	16.70	13.60	28.30	23.40
25%	21.3	20.9	16.00	13.00	34.00	29.00	15.80	13.20	27.40	22.40
40%	19.5	17.7	15.00	12.00	33.00	23.00	14.60	11.50	23.60	17.10
55%	15.7	13.4	14.00	12.00	25.00	20.00	12.30	9.50	20.80	16.20
70%	12.6	11.7	12.00	10.00	20.00	16.00	10.40	8.80	16.20	15.30
100%	9.8	8.5	9.00	8.00	16.00	12.00	8.50	7.10	14.60	13.40

Cob and Stover Yield per ha



	0%	10%	25%	40%	55%	70%	100%
Cob yield (t/ha) K	10.61	10.44	9.23	7.58	6.78	4.56	1.55
Cob yield (t/ha) C	9.92	7.46	6.39	5.57	4.80	2.72	1.28
Stover yield (t/ha) K	11.94	11.67	10.72	8.97	7.39	5.23	2.89
Stover yield (t/ha) C	11.02	8.87	7.67	6.68	5.99	3.83	2.74

Pearson’s Correlation Analysis



Thank You