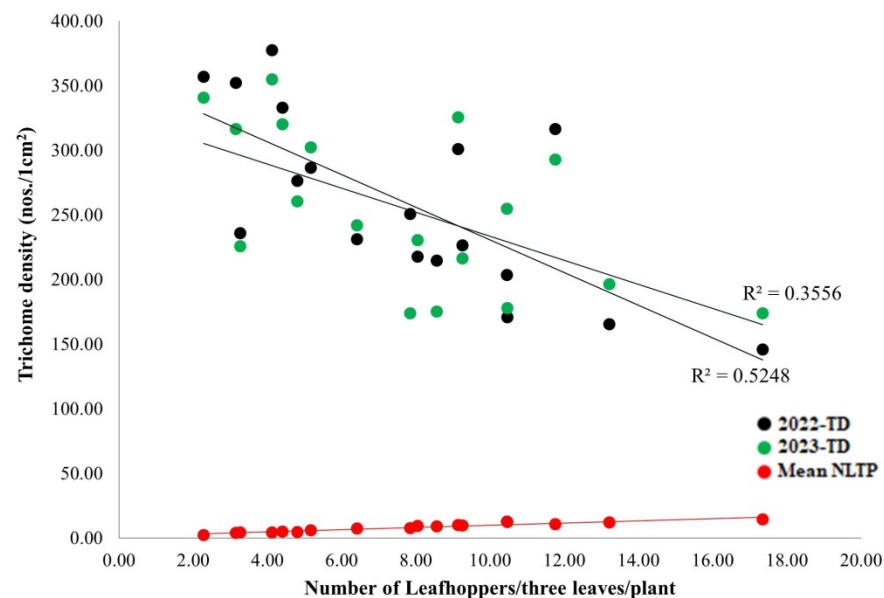


Supplementary Table 1 Weather data recorded during cotton growing seasons in Coimbatore city, India in 2022–23

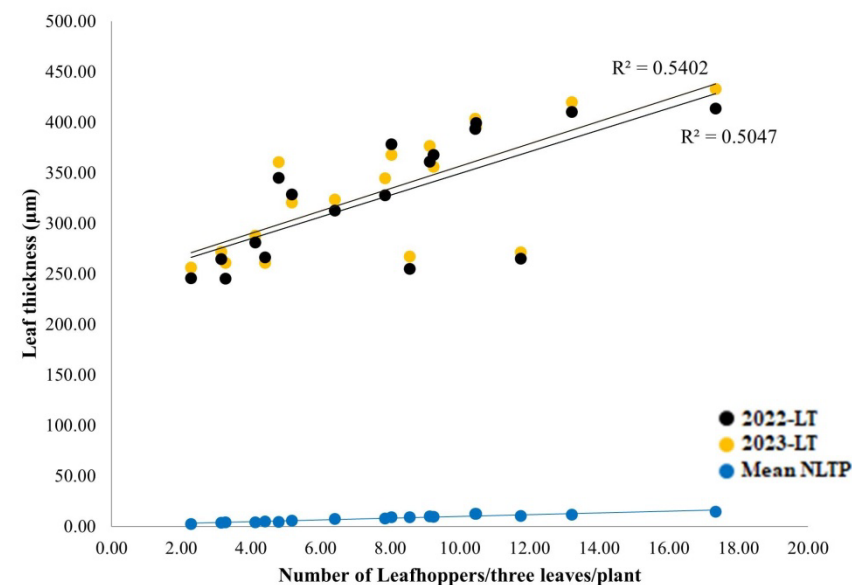
Summer-2022				Kharif-2023				Summer-2023			
Month	Total precipitation (mm)	Average Air temperature (C)	Sunshine duration total (h)	Month	Total precipitation (mm)	Average Air temperature (C)	Sunshine duration total (h)	Month	Total precipitation (mm)	Average Air temperature (C)	Sunshine duration total (h)
January	10.0	24.6	276.0	July	162.0	27.0	153.0	February	8.3	25.3	261.2
February	12.0	26.3	291.4	August	267.0	26.1	148.8	March	11.7	25.8	280.0
March	20.0	28.3	285.2	September	152.0	26.3	161.2	April	17.9	29.1	296.1
April	72.0	29.8	264.0	October	105.0	26.8	177.0	May	121.6	29.7	271.4
May	105.0	28.9	241.8	November	193.0	26.5	195.3	June	135.3	30.1	225.3

Source: https://dsp.imdpune.gov.in/data_supply_service.php

(A)



(B)



Supplementary Fig 1 Scatter plots depict highly significant negative (A) and positive (B) correlated traits with leafhopper population

Supplementary Table 2 Pooled ANOVA mean squares for studied traits at 30-120 days crop interval

Traits		Environment (E) (Df = 1)	Replication within E (Df = 4)	Genotype (G) (Df = 17)	G × E (Df = 17)	Pooled Error (Df = 68)
LII (0-4)	30DAS	0.14ns	0.04	4.84**	0.16**	0.06
	45DAS	18.15**	0.03	4.20**	0.50**	0.03
	60DAS	0.09**	0.01	5.10**	0.93**	0.04
	75DAS	9.81**	0.02	4.60**	0.32**	0.02
	90DAS	0.08**	0.01	3.70**	0.23**	0.01
	120DAS	0.20ns	0.01	3.04**	0.36**	0.01
HPSP (nos.)	60DAS	0.02ns	0.93	3.32**	0.12**	0.02
	90DAS	0.40**	0.01	3.20**	0.04**	0.02
HPS (%)	60DAS	0.06ns	0.08	82.53**	1.32**	0.45
	90DAS	4.30**	0.55	80.53**	2.91**	0.60
NLTP (nos.)		4.54**	0.06	77.11**	8.54**	0.09
LII (0-4)		0.03**	0.01	3.75**	0.17**	0.01
LSI (%)		12.02**	0.21	1014.60**	142.20**	0.72
LPR (1-9)		1.33**	0.02	31.45**	2.74**	0.01
LPI (%)		3.10**	0.08	574.2**	7.43**	0.85
TL (µm)		169.27**	2.26	43715.87**	21252.56**	22.6
TD (nos./cm ²)		568.24**	20.56	24786.09**	1400.47**	13.11
LT (µm)		1152.08**	32.28	21622.28**	146.52**	25.88
GG (nos./cm ²)		9.62**	40.8	1039.19**	57.28**	7.67

**, Significant at $P \leq 0.01$; ns, Non-significant; LII, Leafhopper injury index; HPSP, Host preference survival population numbers; HPS, Host preference survival percentage. NLTP, Number of leafhopper /three leaves/plant; LSI, Leafhopper susceptibility index; LPR, Leaf pubescence rating; LPI, Leafhopper percent intensity; TL, Trichome length; TD, Trichome density; LT, Leaf thickness; GG, Gossypol glands.