

Investigation of genetically modified (GM) ingredients in packaged maize containing food products in Indian market: A regulatory study

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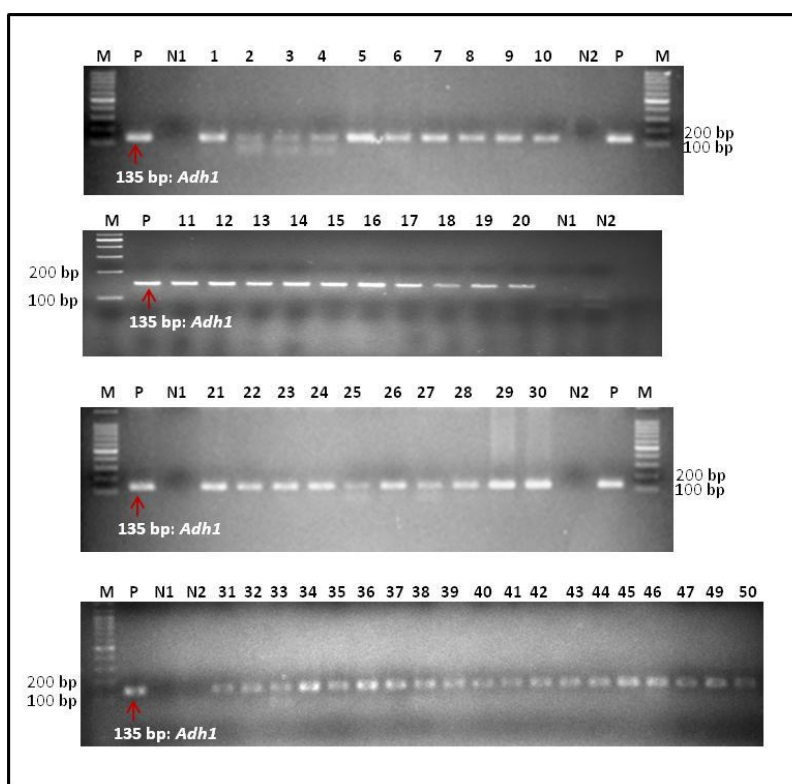
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Received 03 October 2024; revised 08 April 2025

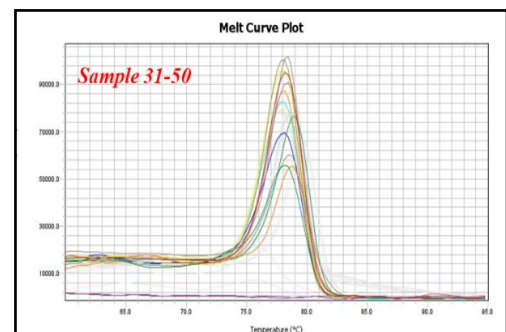
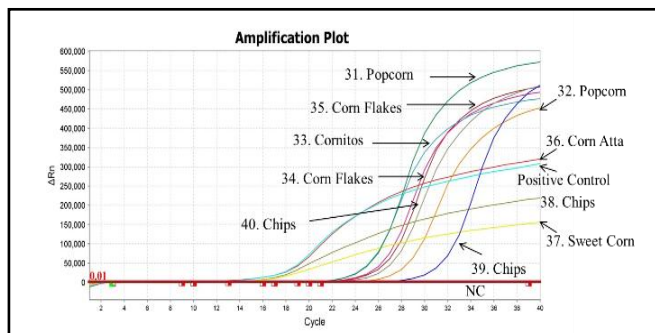
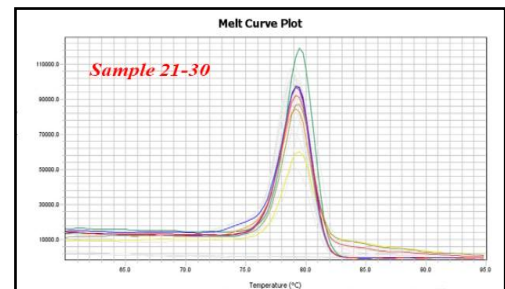
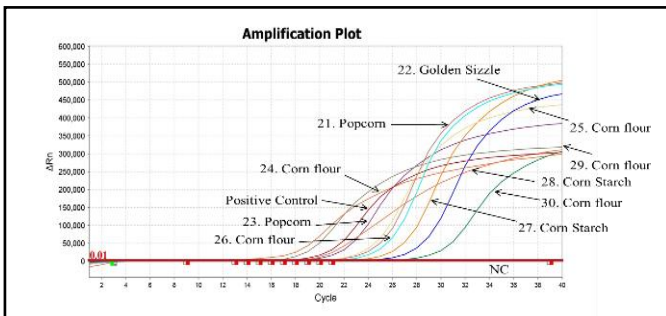
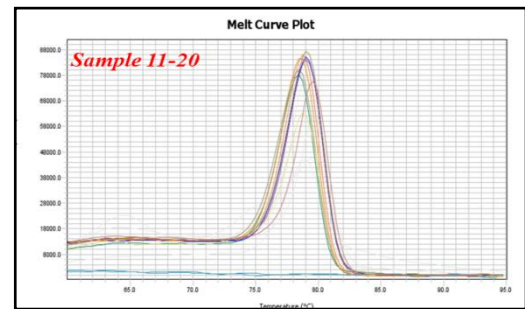
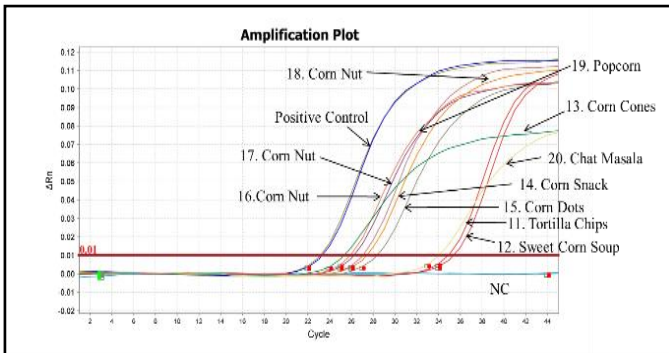
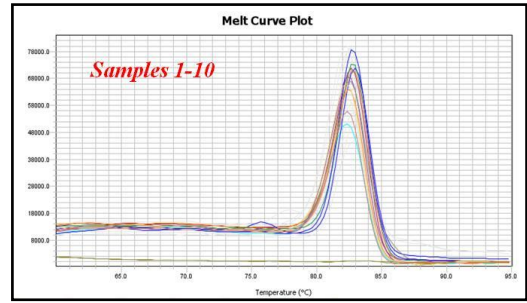
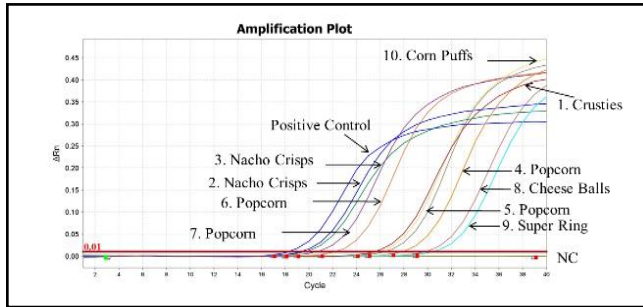
Supplementary Table S1 — Concentration and purity of isolated DNA samples of food products

S. No.	Sample Name	DNeasy® Mericon Food Kit Method					
		DNA concentration (ng/μL)			Purity		
		R1	R2	Mean	R1	R2	Mean
1	Crusties (Potato Snacks)	36.3	35.48	35.89±0.58	1.9	1.75	1.825±0.11
2	Nacho Chips (Cheese and Herbs)	54.8	51.5	53.15±2.33	2.78	1.76	2.27±0.721
3	Nacho Chips (Sizzlin Jalapeno)	37.9	34.6	36.25±2.33	1.74	1.72	1.73±0.011
4	French Butter & Pink Salt Popcorn	25.2	25.6	25.4±0.28	1.96	1.87	1.915±0.061
5	Sour Cream & Wasabi Cheese Popcorn	25.1	25.2	25.15±0.07	2.06	1.72	1.89±0.24
6	Orange Chilli Caramel Popcorn	24.1	26.8	25.45±1.9	1.8	1.68	1.74±0.08
7	Popcorn Butter Flavour	39.3	35.6	37.45±2.6	2.03	1.78	1.91±0.18
8	Cheese Balls	28.1	24.9	26.5±2.2	1.89	1.81	1.85±0.06
9	Super Ring	24.3	20.8	22.55±2.4	1.96	1.68	1.82±0.19
10	Corn Puffs	29.7	26.1	27.9±2.5	2.29	1.71	2.00±0.41
11	Mexilla (Tortilla Chips)	51.2	56.2	53.7±3.5	1.71	1.67	1.69±0.03
12	Sweet Corn Soup	86.3	82.2	84.25±2.9	1.9	1.78	1.84±0.08
13	Crunchy Corn Cones	35.8	39.2	37.5±2.4	1.78	1.85	1.82±0.05
14	Corn Snack	19.3	20.1	19.7±0.5	1.83	1.73	1.78±0.07
15	Corn Dots (Peri Peri)	28.5	24.4	26.45±2.9	1.68	1.83	1.76±0.11
16	Corn Nut (Peri Peri)	33.7	38.8	36.25±3.6	1.77	1.99	1.88±0.16
17	Corn Nut (Peri Peri)	27	26.8	26.9±0.1	2.15	1.55	1.85±0.42
18	Roasted Spanish Corn Nut	3.3	8	5.65±3.3	1.89	1.81	1.85±0.06
19	Popcorn Maize	117.7	114.9	116.3±1.98	1.76	1.76	1.76±0
20	Sweet Corn Chat Masala	26.3	22.2	24.25±2.90	1.89	1.74	1.82±0.11
21	Instant Popcorn (Tomato Chilli Flavour)	42.3	46	44.15±2.62	1.76	1.76	1.76±0
22	Golden Sizzle	112.4	115.1	113.75±1.91	1.76	1.73	1.75±0.02
23	Popcorn Butter Flavour	50.6	49.5	50.05±0.78	1.7	1.76	1.73±0.04
24	Corn flour	23.2	25	24.1±1.28	1.8	1.62	1.71±0.13
25	Corn flour	23.3	21	22.15±1.63	1.81	1.71	1.76±0.07
26	Corn flour	25	25.8	25.4±0.57	1.95	1.92	1.94±0.02
27	Corn Starch	16.8	17	16.9±0.14	1.72	1.7	1.71±0.01
28	Corn Starch	11.6	13.8	12.7±1.56	1.77	1.5	1.64±0.19
29	Corn flour	21.2	24.2	22.7±2.12	2	1.64	1.82±0.25
30	Corn flour	24.3	22.2	23.25±1.48	2.96	1.6	2.28±0.96
31	Diet Popcorn	82.2	84.6	83.4±1.69	1.82	1.57	1.70±0.18
32	Popcorn Hot n' Spicy	63.6	64.6	64.1±0.71	1.78	1.39	1.59±0.28
33	Coated Green Peas Hot & Spicy	194.7	192.1	193.4±1.84	1.87	1.59	1.73±0.19
34	Coated Green Peas Wasabi	107.2	108.4	107.8±0.85	1.99	1.85	1.92±0.10
35	Corn Flakes (Real Almond Honey)	24.7	22.5	23.6±1.56	1.77	1.43	1.6±0.24

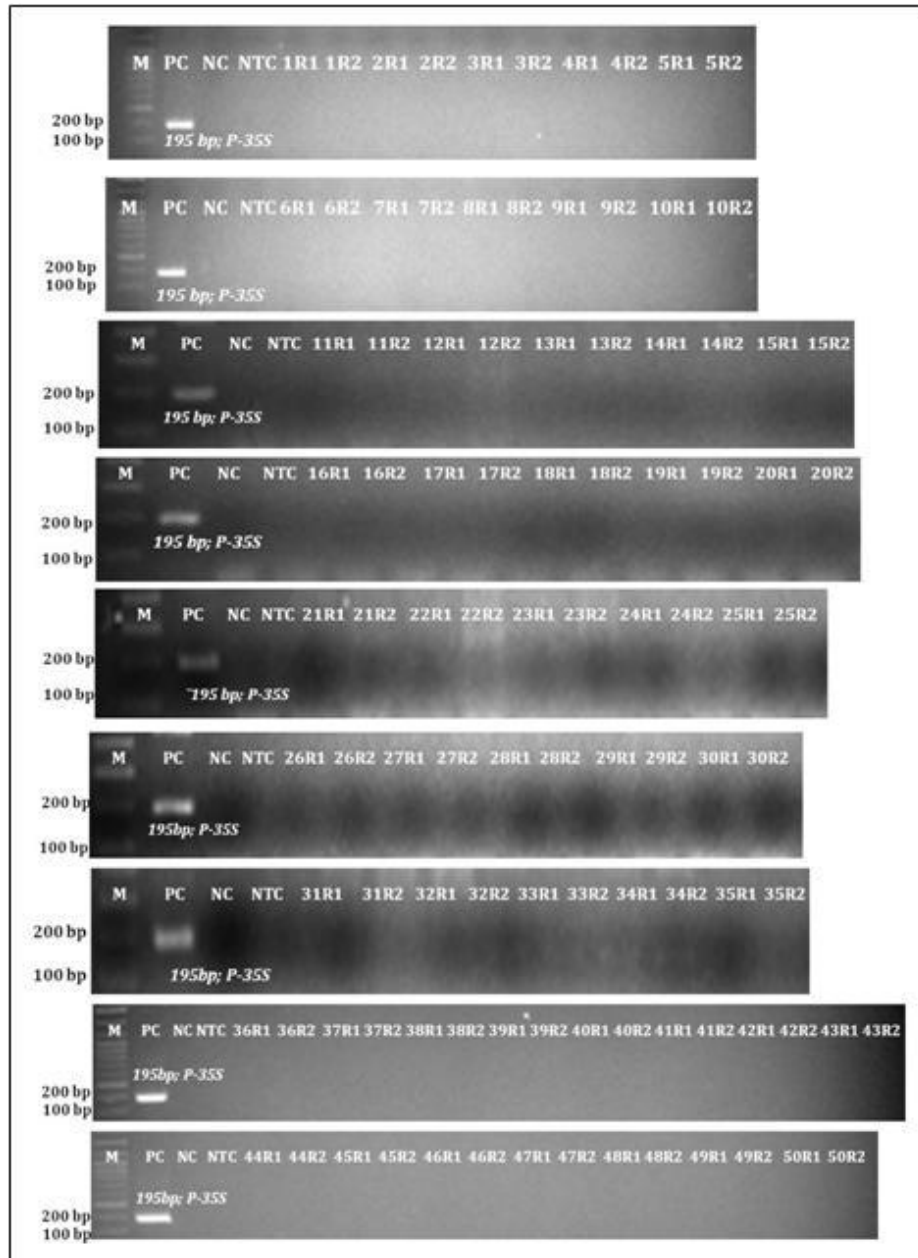
36	Organic Corn Atta	57.8	54.6	56.2±2.26	1.86	1.85	1.86±0.01
37	American Sweet Corn	76.3	75.7	76±0.42	1.84	1.38	1.61±0.32
38	Chips (Original)	25.5	20.4	22.95±3.61	2.09	2.13	2.11±0.03
39	Chips (Pizza flavour)	26.4	22.2	24.3±2.97	2.02	1.04	1.53±0.69
40	Chips (South African Style Peri Peri Flavour)	24.9	23.1	24±1.27	2.15	1.17	1.66±0.69
41	Chips (Fusion Chutney Flavour)	24.1	24	24.05±0.07	1.95	1.51	1.73±0.31
42	Chips (Sour Cream & Onion Flavour)	24.7	27.3	26±1.84	2.03	1.13	1.58±0.64
43	Mixed Vegetable Soup	56.3	51.6	53.95±3.32	1.75	1.58	1.67±0.12
44	Mexican Tomato Corn	86.9	84.3	85.6±1.84	1.86	1.75	1.805±0.08
45	Sweet Corn Chicken Soup	53.3	50.5	51.9±1.98	1.83	1.85	1.84±0.01
46	Corn Chips (Cheese & Herbs)	22.6	20.7	21.65±1.34	1.78	1.11	1.45±0.47
47	Corn Chips (Hawaiian Barbeque)	24.2	20.8	22.5±2.40	1.89	1.5	1.695±0.27
48	Corn Flakes (Original)	22.3	20.4	21.35±1.34	2	1.98	1.99±0.01
49	Corn Chips (Salt & Truffle)	26.2	22.7	24.45±2.47	2.02	1.32	1.67±0.49
50	Corn Chips (Sweet Chilli)	23.7	22.8	23.25±0.64	2.01	2.38	2.20±0.26



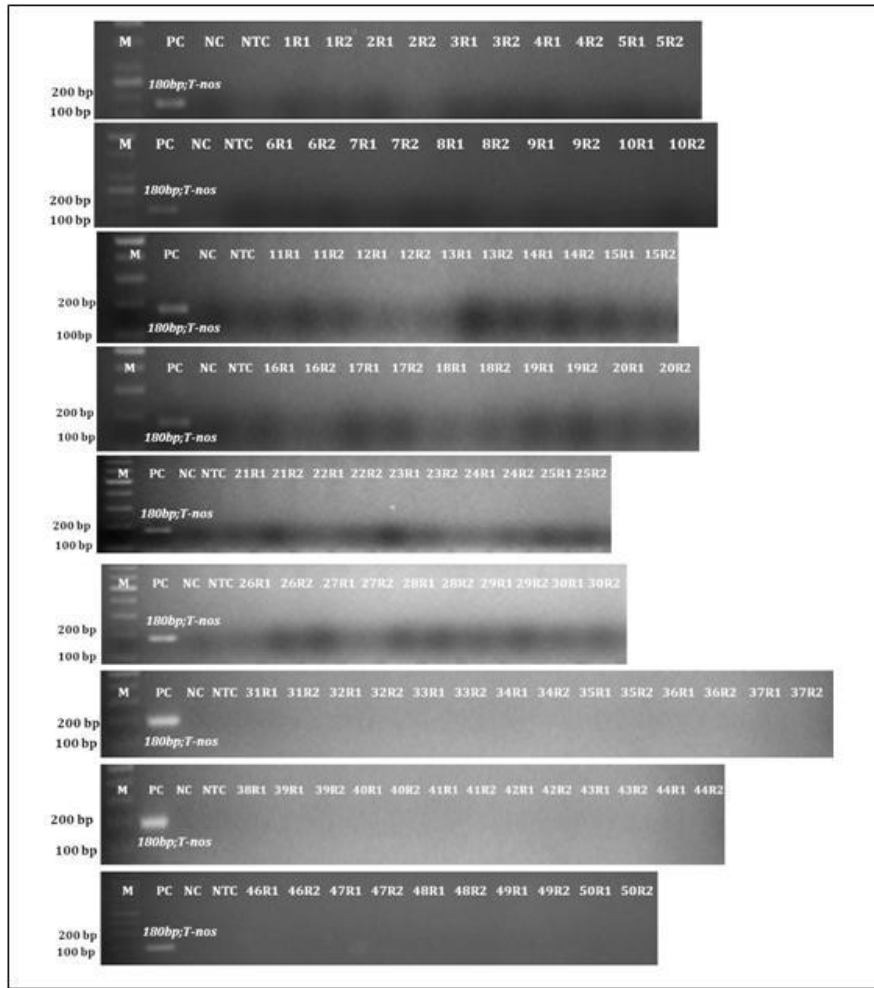
Supplementary Fig. S1 — Amplification profile for checking amplifiability of DNA samples of 50 maize containing food products using PCR targeting maize specific *Adh1* endogenous gene [M:100 bp DNA ladder; P: Positive amplification control; N1: DNA of non-GM cotton, N2: Non-template/ water control, Lanes 1-50: Samples 1-50]



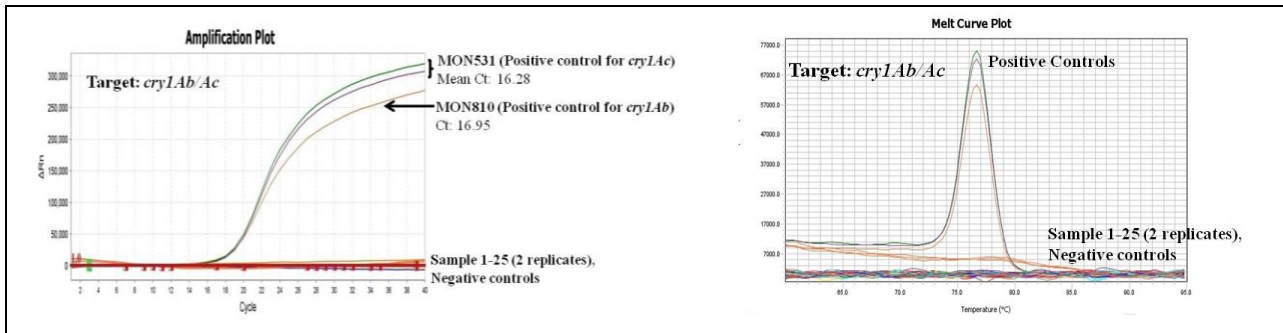
Supplementary Fig. S2 — Amplification and melting curve profiles resulting from real-time PCR assay targeting *Adh1* endogenous gene. NC: Negative control (water control).

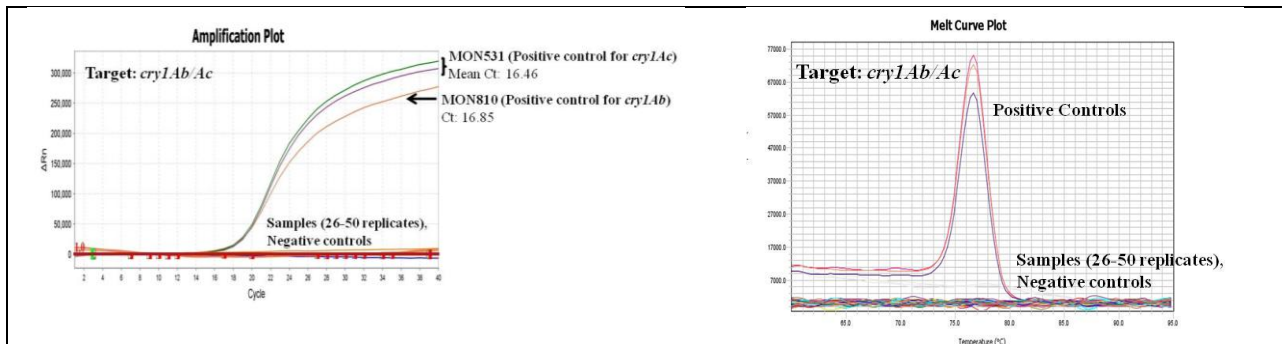


Supplementary Fig. S3 — PCR amplification profile to check presence or absence of *P-35S* promoter in 50 samples of food products with two replicates each [M:100 bp DNA ladder; P: Positive amplification control (NK603); NC: DNA of non-GM maize, NTC: Non-template/ water control, Lanes 1-50: Samples 1-50]



Supplementary Fig. S4 — PCR amplification profile to check presence or absence of *T-nos* terminator in 50 samples of food products with two replicates each [M:100 bp DNA ladder; P: Positive amplification control (NK603); NC: DNA of non-GM maize, NTC: Non-template/ water control, Lanes 1-50: Samples 1-50]





Supplementary Fig. S5 — Real-time PCR amplification and melting curve profiles for checking presence or absence of *cryIAb/Ac* gene in 50 samples of food products in two replicates of each.