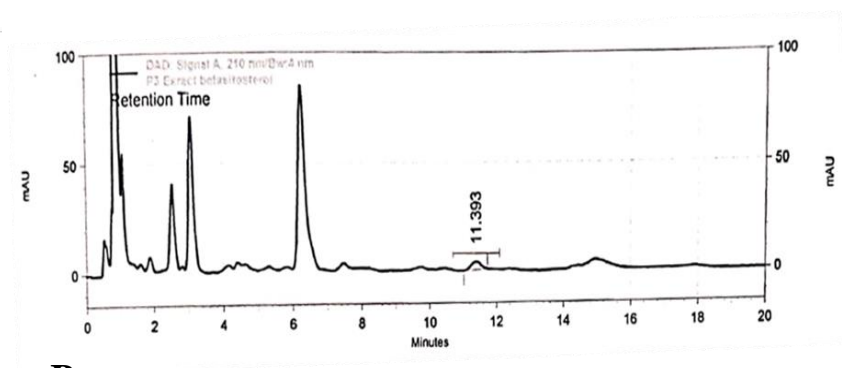
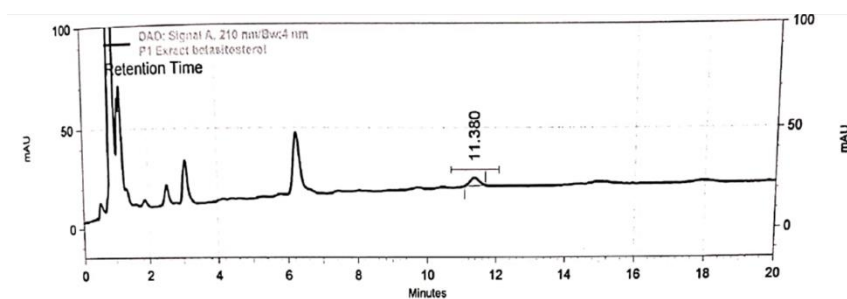


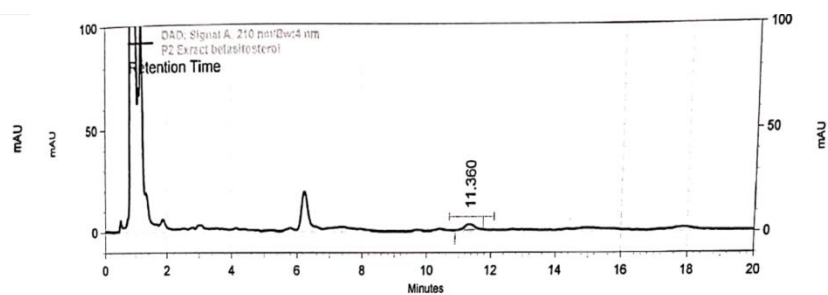
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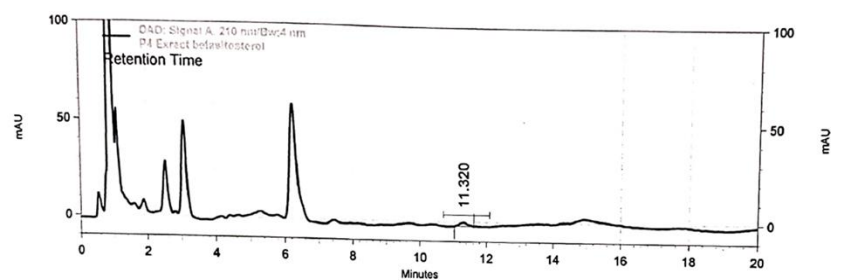
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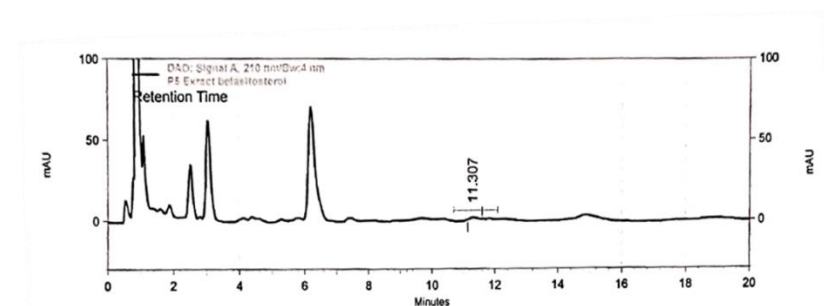
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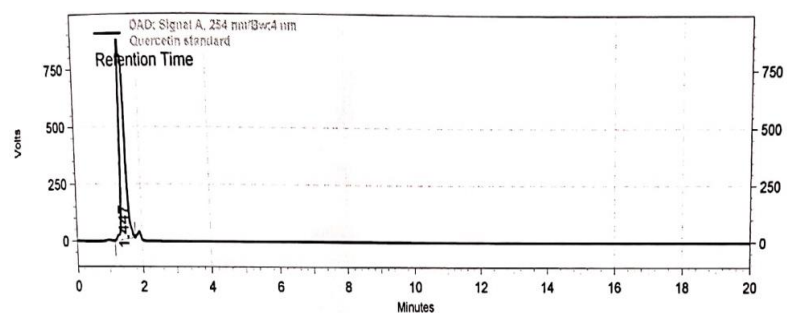


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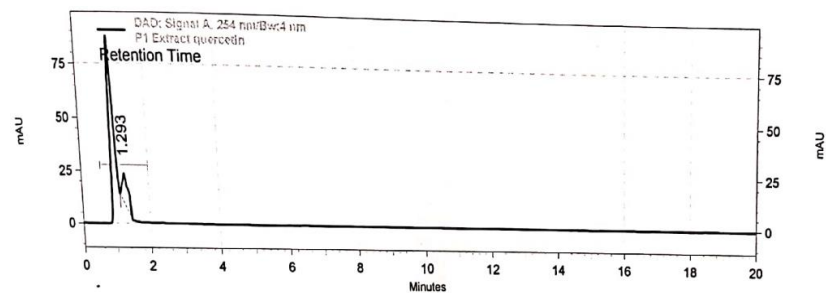


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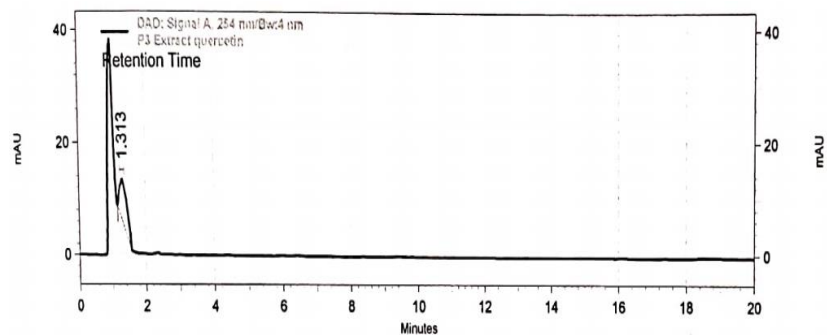
Figure S1a: HPLC chromatogram for estimation of β -sitosterol content in *M.oleifera* varieties leaf extracts.[A] standard compound [B] Jaffna [C] PKM-1 [D] PKM-2 [F] ODC and [F] Conventional..



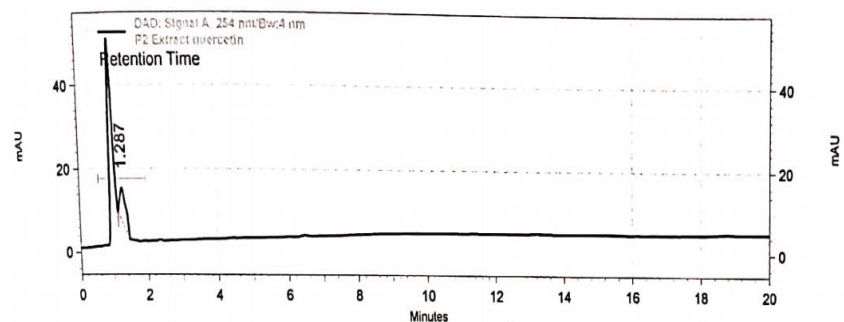
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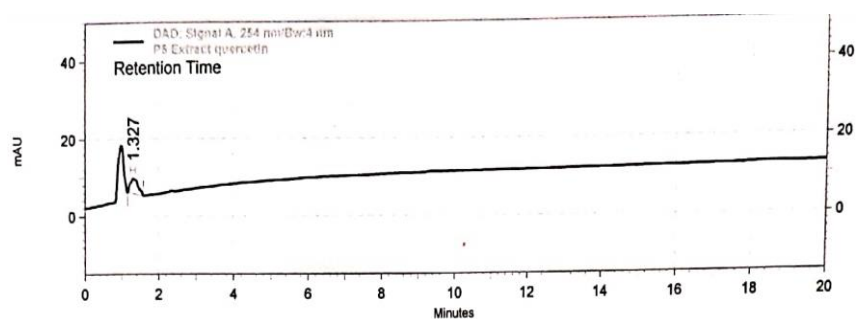
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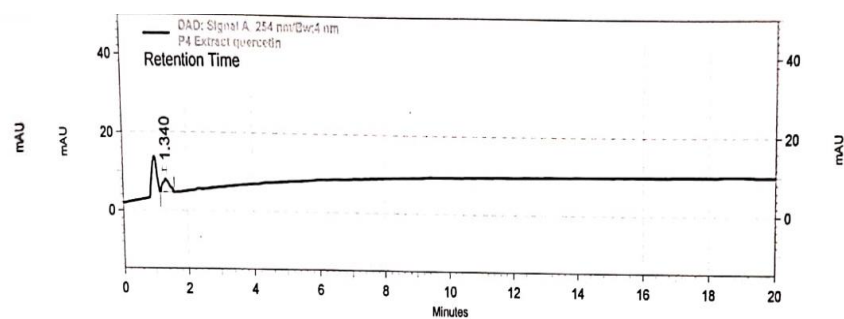
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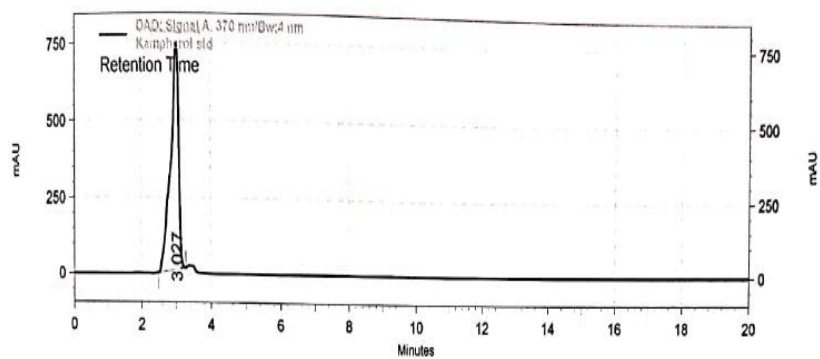


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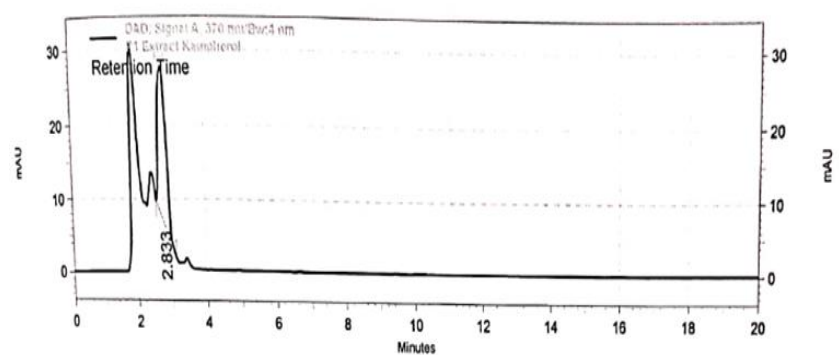


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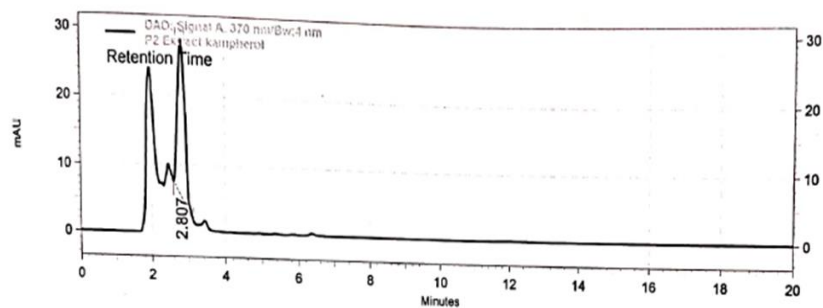
Figure S1b: HPLC chromatogram for estimation of Quercetin content in *M.oleifera* varieties leaf extracts. [A] Standard compound [B] Jaffna, [C] PKM-1 [D] PKM-2 [E] ODC and [F] Conventional.



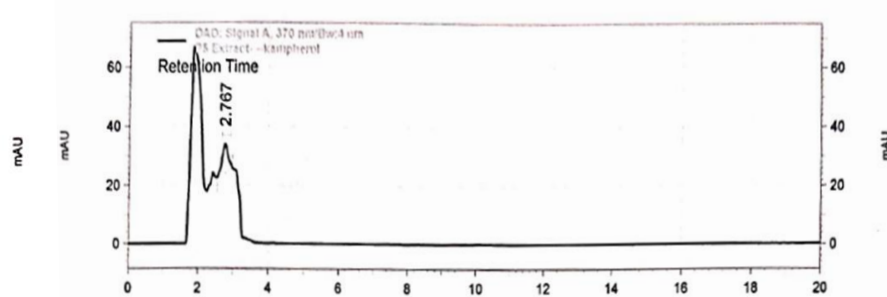
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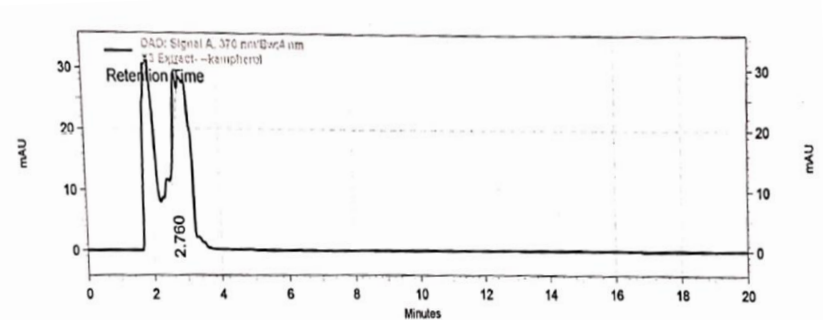
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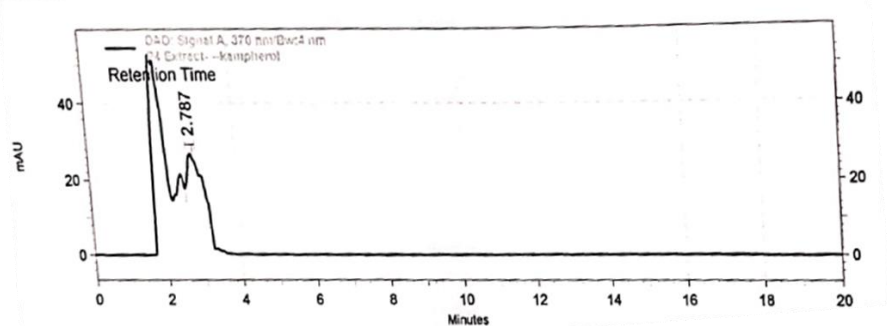
C



D



E



F

Figure S1c : HPLC chromatogram for estimation of Kaempferol content in *M.oleifera* varieties leaf extracts.[A] Standard compound [B] Jaffna [C] PKM-1, [D] PKM-2 [E] ODC and [F] Conventional.

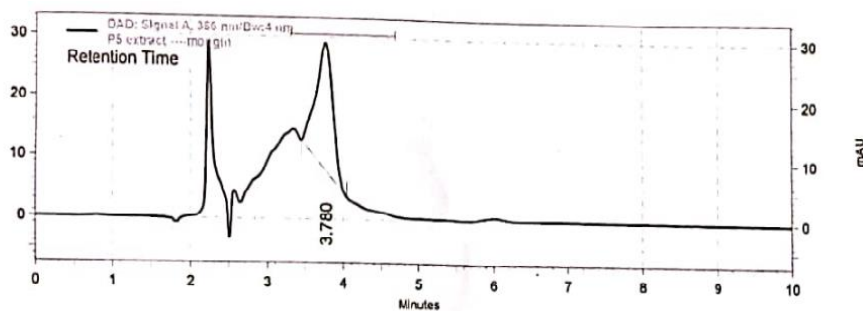
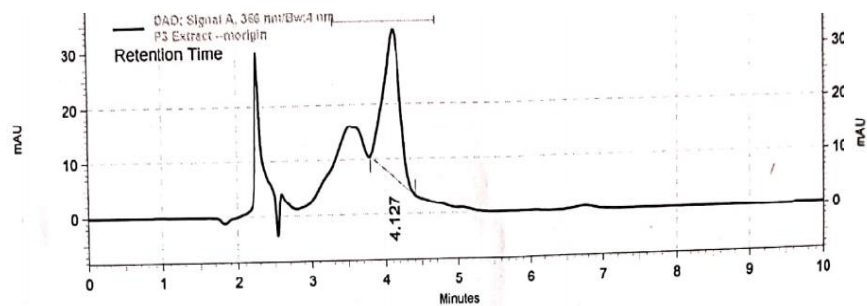
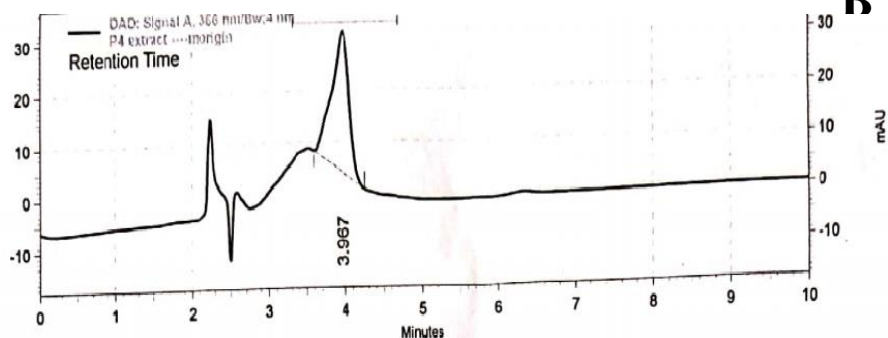
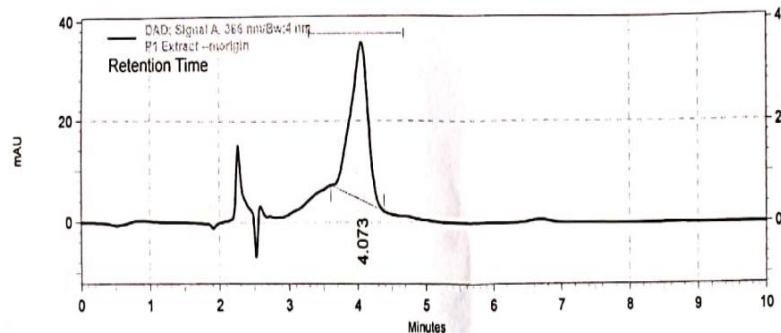
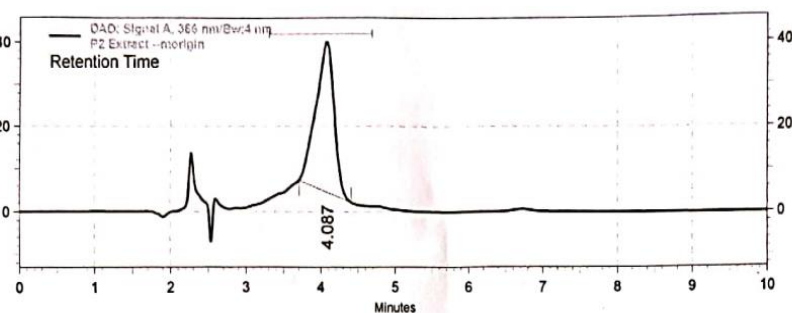
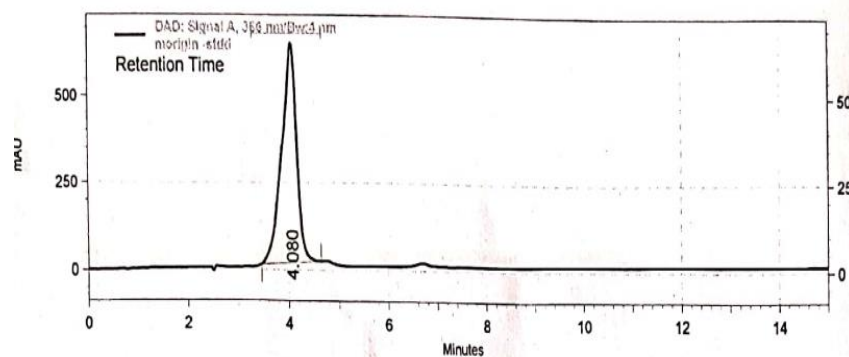


Figure S1d: HPLC chromatogram for estimation of Moringin content in *M.oleifera* varieties leaf extracts. [A] Standard compound [B] Jaffna [C] PKM-1 [D] PKM-2 [E] ODC and [F] Conventional.

Supplementary Table S1: Anti-bacterial activity (bacterial zone of inhibition values) of *M. oleifera* varieties.

Aqueous leaf extract					Aqueous seed extract			
Varieties	<i>E. coli</i>	<i>B. subtilis</i>	<i>P. aeruginosa</i>	<i>S. aureus</i>	<i>E. coli</i>	<i>B. subtilis</i>	<i>P. aeruginosa</i>	<i>S. aureus</i>
Jaffna	13.63±0.65 ^a	14.66±0.41 ^a	16.83±0.20 ^a	11.83±0.15 ^a	12.53±0.45 ^a	14.86±0.15 ^a	16.66±0.35 ^a	10.63±0.30 ^a
PKM-1	10.13±0.61 ^b	12.66±0.41 ^b	15.83±0.20 ^b	10.70±0.26 ^b	10.66±0.35 ^b	12.70±0.30 ^b	15.73±0.30 ^b	9.66±0.30 ^b
PKM-2	9.76±0.25 ^c	11.20±0.20 ^c	13.80±0.20 ^c	13.36±3.78 ^c	8.63±0.40 ^c	10.56±0.40 ^c	13.63±0.47 ^c	7.70±0.30 ^c
ODC	8.60±0.45 ^d	13.83±0.41 ^d	13.63±0.35 ^d	8.86±0.85 ^d	8.63±0.47 ^d	9.33±0.20 ^d	11.80±0.35 ^d	10.60±0.36 ^d
Conventional	6.76±0.32 ^c	10.03±0.90 ^e	9.96±0.90 ^e	5.73±0.30 ^e	6.93±0.50 ^e	8.56±0.45 ^e	9.70±0.26 ^e	3.53±0.26 ^e
Ethanollic leaf extract					Ethanollic seed extract			
Jaffna	23.6±0.36 ^a	26.00±0.80 ^a	27.80±0.43 ^{a*}	25.00±0.40 ^a	22.56±0.45 ^a	23.80±0.20 ^a	25.86±0.15 ^a	20.66±0.30 ^a
PKM-1	22.4±0.50 ^b	24.90±0.45 ^b	23.90±0.26 ^b	23.00±0.10 ^b	20.06±0.81 ^b	20.20±0.20 ^b	24.63±0.35 ^b	19.83±0.15 ^b
PKM-2	19.83±0.85 ^c	20.33±0.61 ^c	23.23±0.20 ^c	19.83±0.15 ^c	17.70±0.36 ^c	20.13±0.51 ^c	21.73±0.25 ^c	18.26±0.30 ^c
ODC	18.0±0.40 ^d	20.83±0.20 ^d	20.26±0.30 ^d	16.73±0.25 ^d	12.70±0.20 ^d	13.66±0.41 ^d	18.60±0.36 ^d	9.70±0.30 ^d
Conventional	13.66±0.41 ^c	18.46±0.61 ^e	18.43±0.40 ^e	14.63±0.40 ^e	9.50±0.40 ^e	14.70±0.43 ^e	16.70±0.30 ^e	8.70±0.25 ^e

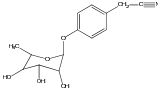
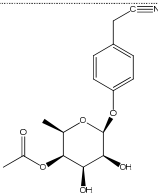
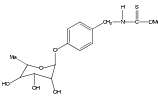
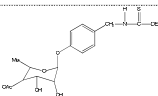
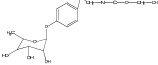
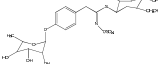
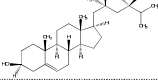
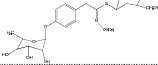
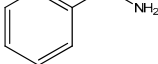
*LSD: least significantly different at $p \leq 0.05$ according to the posthoc test. Each value is presented as mean of triplicate treatments.

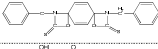
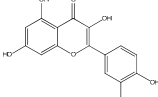
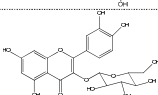
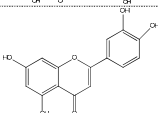
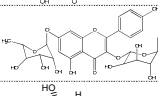
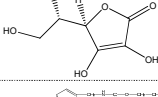
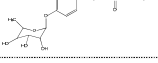
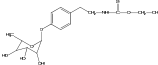
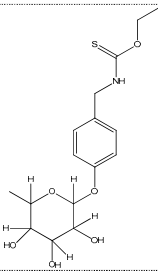
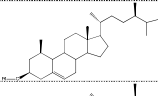
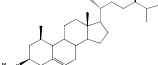
Supplementary Table S2: Plant growth promoting activity of *M. oleifera* varieties leaf extract on *S. rebaudiana*.

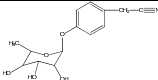
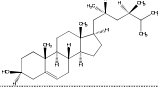

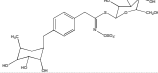
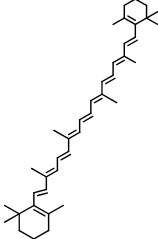
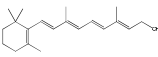
Foliar spray	Shoot length (cm)	Root length (cm)	No. of leaves	Plant dry weight (gm)	Chlorophyll a content (mg/g FW)	Chlorophyll b content (mg/g FW)	Carotenoid content (mg/g FW)	Total soluble sugars content (mg/g FW)	Total protein content (mg/g FW)	Total Phenolic content (µg/g FW)	Total flavonoid content (µg/g FW)
Water	12.46±0.40 ^{a*}	6.05 ± 0.30 ^a	48±3.05 ^a	1.32 ± 0.01 ^a	0.75 ± 0.03 ^a	0.78 ± 0.02 ^a	0.25 ± 0.02 ^a	9.31± 0.78 ^a	4.40 ± 0.62 ^a	230.41 ± 0.25 ^a	112.21 ± 0.66 ^a
Jaffna	35.43 ± 0.20 ^b	30.70 ± 0.50 ^b	138±3.50 ^b	4.90 ± 0.43 ^b	0.85 ± 0.03 ^b	0.87 ± 0.01 ^b	0.45 ± 0.01 ^b	25.69 ± 0.63 ^b	8.43 ± 0.84 ^b	420.46 ± 0.50 ^b	194.43 ± 0.25 ^b
PKM-1	33.26 ± 0.30 ^c	22.40 ± 0.30 ^c	122±3.60 ^c	4.46 ± 0.34 ^c	0.83 ± 0.01 ^c	0.86 ± 0.01 ^c	0.41 ± 0.01 ^c	22.80± 0.82 ^c	7.75 ± 0.49 ^c	387.20 ± 0.20 ^c	185.50± 0.36 ^c
PKM-2	28.40 ± 0.30 ^d	25.50 ± 0.20 ^d	103±4.30 ^d	4.01 ± 0.20 ^d	0.81 ± 0.01 ^d	0.83 ± 0.01 ^d	0.35 ± 0.01 ^d	17.84 ± 0.84 ^d	7.28 ± 0.78 ^d	356.36 ± 0.32 ^d	162.13 ± 0.90 ^d
ODC	27.10 ± 0.26 ^e	15.70 ± 0.30 ^e	88 ± 3.50 ^e	3.13 ± 0.48 ^e	0.79 ± 0.01 ^e	0.82 ± 0.01 ^e	0.30 ± 0.02 ^e	14.83 ± 0.79 ^e	6.69 ± 0.53 ^e	308.36 ± 0.15 ^e	135.30 ± 0.26 ^e
Conventional	20.63 ± 0.20 ^f	12.50 ± 0.90 ^f	64 ± 4.04 ^f	2.82 ± 0.04 ^f	0.78 ± 0.01 ^f	0.80 ± 0.01 ^f	0.27 ± 0.02 ^f	12.05 ± 0.81 ^f	5.66 ± 0.55 ^f	280.40 ± 0.40 ^f	120.86 ± 0.90 ^f

*LSD: least significantly different at $p \leq 0.05$ according to the posthoc test. Each value is presented as mean of triplicate treatment

Supplementary Table S3: Phytochemical constituents reported in different parts of *Moringa oleifera*.

Plant part	Bioactive compound	Biological activity	Chemical structure	Reference(s)
Leaves	Niazirin	Hypotensive activity		[1,2–5]
	Niazirinin			
	4-(4'-O-acetyl-α-Lrhamnopyranosyloxy)benzyl isothiocyanate	Antibacterial, Antitumor, Anticancer, Antiulcer, Antispasmodic, Antihyperthyroidic, Estrogenic, Hypoglycaemic, Hypocholesterolemic, Purgative and Abortifacient properties		
	Niaziminin A and B	Antitumor and Hypotensive activity		
	Niazimicin	Antispasmodic, Anticancer, Antibacterial, Antitumour		
Bark	4-(α-Lrhamnopyranosyloxy)benzyl glucosinolate	Hypotensive, Anticancer, Antibacterial, Antifungal activity		[1]
Stem	β-sitosterol	Anticancer and hypotensive activity		[1,4,6,7]
	4-(α-Lrhamnopyranosyloxy)benzyl glucosinolate	Hypotensive, Anticancer, Antibacterial and Antifungal activity		
Roots	Moringine	Cardiac stimulant, hypolipidimic bronchodilator activity		

	Pterygosperrin	Antimicrobial, antibacterial and Anti-fungal properties		
Flower	Quercetin	Antioxidant and Hepatoprotective activity		[1,7]
	Isoquercetin	Antioxidant activity		
	Kaempferol	Antioxidant activity		
	Kaempferitrin	Antioxidant, Antimicrobial and Anti-inflammatory activity		
	Ascorbic acid	Antioxidant activity		
	O-ethyl-4-(α-L-rhamnosyloxy)benzyl carbamate	Antitumor activity		
Pods/Seeds	4(α-L-rhamnosyloxy)-benzyl isothiocyanate	Antitumor, Antimicrobial, Hypotensive, Anticancer and Antibacterial activity		[1,4]
	Niazimicin	Antispasmodic, Anticancer and Antitumour		
	3-O-(6'-O-oleoyl-β-Dglucopyranosyl)-β-sitosterol	Antitumor and Anticancer property		
	β-sitosterol-3-O-β-Dglucopyranoside	Anticancer property		

	Niazirin	Hypotensive activity		
	β -sitosterol	Anticancer property		
	Glycerol-1-(9octadecanoate)	Anticancer property		
	4-(α -Lrhamnopyranosyloxy) benzyl glucosinolate	Hypotensive, Anticancer, Antibacterial and Antifungal activity		
	β -carotene.	Antioxidant activity		
	Vitamin A	Prevents blindness, maternal mortality, enhances lactation (breast milk); Enhances immunity to fight infections		

1. Anwar, F.; Latif, S.; Ashraf, M.; Gilani, A.H. *Moringa oleifera*: A food plant with multiple medicinal uses. *Phytother. Res.* **2007**, *21*, 17–25.
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