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Monitoring and health risk assessment of organochlorine pesticide residue in some leafy and fruiting vegetables from Lagos State, Southwestern Nigeria

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TABLE S1: Estimated daily intake (EDI) (mg/kgbw/day) of pesticide residue in fluted pumpkin (*f. Telfairia occidentalis*), green amaranth (*Amaranthus Viridis*) and Scotch bonnet (*Capsicum Chinese*)

Pesticide	Type and source of leafy and fruiting vegetables											
	Pumpkin				Green amaranth			Scotch bonnet				Acceptable daily intake (ADI) mg/kgbw bw
	SIP	AIP	IP	OP	IG	SG	AG	SS	AS	OS	NS	
ALPHA LINDANE	BDL	2.764 x 10^{-5}	BDL	BDL	BDL	BDL	BDL	1.23 x 10^{-5}	BDL	BDL	7.08 x 10^{-6}	0.008 (WHO)
DELTA LINDANE	BDL	2.834 x 10^{-6}	BDL	BDL	BDL	BDL	BDL	2.40 x 10^{-6}	BDL	BDL	3.11 x 10^{-6}	0.008 (WHO)
HEPTACHLOR	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4.76 x 10^{-4}	BDL	4.81 x 10^{-4}	0.0001 (WHO)
ALDRIN	BDL	1.417 x 10^{-6}	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.0001 (WHO)
HEPTACHLOR EPOXIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.55 x 10^{-5}	BDL	3.26 x 10^{-5}	0.0001 (WHO)
TRANS-CHLORDANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.40 x 10^{-6}	BDL	BDL	BDL	0.0005 (FAO/WHO
P,P'-DDE	BDL	BDL	BDL	BDL	BDL	BDL	4.00 x 10^{-5}	2.60 x 10^{-4}	BDL	BDL	BDL	0.01 (FAO/WHO)

DIELDRIN	$1.98\,x10^{-6}$	1.35 x 10^{-5}	6.09x 10^{-6}	1.13 x 10^{-5}	8.50 x 10^{-6}	2.83 x 10^{-6}	BDL	BDL	BDL	1.42 x 10^{-6}	BDL	0.0001 (WHO)
ENDRIN	2.693 x 10^{-5}	1.60 x 10^{-5}	5.66x 10^{-6}	BDL	BDL	BDL	BDL	BDL	5.70 x 10^{-6}	2.70 x 10^{-5}	5.70 X 10^{-6}	0.0002 (WHO)
ENDOSULFAN	2.834 x $^{-}10^{-6}$	1.54 x 10^{-5}	8.50x 10^{-7}	1.41 x 10^{-6}	2.83 x 10^{-6}	1.42 x 10^{-6}	BDL	1.74 x 10^{-4}	7.08 x 10^{-6}	2.83 x 10^{-6}	BDL	0.006 (WHO)
ENDOSULFAN SULPHATE	BDL	1.417 x 10^{-6}	BDL	BDL	BDL	BDL	BDL	BDL	1.10 x 10^{-3}	BDL	4.15 x 10^{-4}	0.0006 (WHO)
ENDRIN KETONE	BDL	1.40 x 10^{-6}	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.0002 (WHO)
METHOXYCHLOR	BDL	4.25 x 10^{-7}	BDL	BDL	BDL	BDL	1.275 x 10^{-5}	BDL	BDL	BDL	BDL	7 (USEPA)
ENDOSULFAN ETHER	1.50 x 10^{-4}	5.76 x 10^{-3}	1.42 x 10^{-5}	1.36 x 10^{-5}	3.00 x 10^{-5}	3.96 x 10^{-5}	2.60 x 10^{-4}	2.01 x 10^{-4}	5.37 x 10^{-4}	1.46 x 10^{-4}	4.82 x 10^{-4}	0.006 (WHO)

USEPA: United States Environmental Protection Agency

TABLE S2: Hazard quotient (HQ) and Hazard index (HI) of pesticide residue in fluted pumpkin (*f. Telfairia occidentalis*), green amaranth (*Amaranthus Viridis*) and Scotch bonnet (*Capsicum Chinese*)

Pesticide	Hazard Quotient (HQ)										
	Type and source of leafy and fruiting vegetables										
	Pumpkin				Green amaranth			Scotch bonnet			
	SIP	AIP	IP	OP	IG	SG	AG	SS	AS	OS	NS
ALPHA LINDANE	BDL	9.2 x 10^{-2}	BDL	BDL	BDL	BDL	BDL	4.1 x 10^{-2}	BDL	BDL	2.3 x 10^{-2}
DELTA LINDANE	BDL	9.4 x 10^{-3}	BDL	BDL	BDL	BDL	BDL	8.0 x 10^{-3}	BDL	BDL	1.0 x 10^{-2}
HEPTACHLOR	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	9.5 x 10^{-1}	BDL	9.6 x 10^{-1}
ALDRIN	BDL	4.7 x 10^{-2}	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
HEPTACHLOR EPOXIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.0	BDL	2.50
TRANSCHLORDANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4.8 x 10^{-3}	BDL	BDL	BDL
P,P' - DDE	BDL	BDL	BDL	BDL	BDL	BDL	3.3 x 10^{-3}	2.1 x 10^{-2}	BDL	BDL	BDL
DIELDRIN	4.0 x 10^{-2}	3.0 x 10^{-1}	-1.22 x 10^{-11}	2.3 x 10^{-1}	1.7 x 10^{-1}	1.0 x 10^{-1}	BDL	BDL	BDL	2.8 x 10^{-2}	BDL
ENDRIN	9.0 x 10^{-2}	5.1 x 10^{-2}	2.0 x 10^{-2}	BDL	BDL	BDL	BDL	BDL	2.0 x 10^{-2}	1.0 x 10^{-1}	2.0 x 10^{-2}
	4.7 x 10^{-4}	3.0 x 10^{-3}	8.50x 10^{-7}	2.3 x 10^{-4}	4.70 x 10^{-4}	2.4 x 10^{-4}	BDL	3.0 x 10^{-2}	1.1 x 10^{-3}	4.7 x 10^{-4}	BDL
ENDOSULFAN	BDL	2.3 x 10^{-4}	BDL	BDL	BDL	BDL	BDL	BDL	1.8 x 10^{-1}	BDL	7.0 x 10^{-2}
ENDOSULFAN SULPHATE	BDL	4.7 x 10^{-3}	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ENDRIN KETONE	BDL	8.5 x 10^{-5}	BDL	BDL	BDL	BDL	3.0 x 10^{-2}	BDL	BDL	BDL	BDL
METHOXYCHLOR	2.4 x 10^{-2}	1.0	1.42 x 10^{-5}	6.0 x 10^{-4}	5.0 x 10^{-3}	7.0 x 10^{-3}	4.30 x 10^{-2}	3.3 x 10^{-2}	9.0 x 10^{-2}	2.4 x 10^{-2}	8.0 x 10^{-2}

ENDOSULFAN ETHER											
Hazard index (HI)	0.15	1.5	0.14	0.23	0.17	0.11	0.07	0.14	3.2	0.5	2.70

TABLE S3: Incremental lifetime cancer risk (ILCR) of pesticide residue in fluted pumpkin (*f. Telfairia occidentalis*), green amaranth (*Amaranthus Viridis*) and Scotch bonnet (*Capsicum Chinese*)

Pesticide	Types and sources of leafy and fruiting vegetables										
	Pumpkin				Green amaranth			Scotch bonnet			
	SIP	AIP	IP	OP	IG	SG	AG	SS	AS	OS	NS
ALPHA LINDANE	BDL	1.3×10^{-5}	BDL	BDL	BDL	BDL	BDL	7.76×10^{-5}	BDL	BDL	4.46×10^{-5}
HEPTACHLOR	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.1×10^{-3}	BDL	2.1×10^{-3}
HEPTACHLOR EPOXIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.3×10^{-4}	BDL	2.9×10^{-4}
P, P'-DDE	BDL	BDL	BDL	BDL	BDL	BDL	1.34×10^{-5}	8.84×10^{-5}	BDL	BDL	BDL
TRANS-CHLORDANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.19×10^{-5}	BDL	BDL	BDL