

Supplementary Materials

Table S1. List of Pesticides Manufactured at the Factory in 2018

Pesticide group	Trade name	Formulation	Active ingredient	WHO Classification ^(*)
Insecticide	Fentox	EC	Fenvalerate	II
			Dimethoate	II
	Cazinon	EC, GR	Diazinon	II
	Sautiu	EC	Abamectin	NL
	Ca - hero	EC	Chlorpyrifos	Ia
			Cypermethrin	II
	Ace	EC	Alpha - cypermethrin	II
	Careman	EC	Chlorpyrifos	Ia
			Alpha - cypermethrin	II
	Catodan	WP, GR, SL	Nereistoxin	NL
	Muskardin	WP	Beauveria bassiana	NL
	Palm	GR	Dimethoate	II
			Fenobucarb	II
	Cagent	GR	Fipronil	II
Cyper alpha	EC	Alpha - cypermethrin	II	
Fungicide	Canazole	EC	Propiconazole	U
	Canazole - super	EC	Propiconazole	U
			Difenoconazole	II
	Cantop - m	WP	Thiophanate - methyl	U
	Cajet - m10	WP	Mancozeb	U
			Cymoxanil	II
	Kasuran	WP	Kasugamycin	U
			Copper - oxychloride	II
	Zincopper	WP	Zineb	U
			Copper - oxychloride	II
	Fireman	WP	Isoprothiolane	II
		Tricyclazole	II	
Dithane	WP	Mancozeb	U	
Herbicide	Platin	EC	Propanil	O
			Butachlor	III
	Newsate	SC	Glyphosate	O
Molluscicide	Molucide	WP	Metaldehyde	II
Rodenticide	Cat	WP	Bromadiolone	Ia
	Rat - k	PD	Warfarin	Ib

*WHO's toxicity categories: Class Ia (Extremely hazardous); Class Ib (Highly hazardous); Class II (Moderately hazardous); Class III (Slightly hazardous); U (Unlikely to present acute hazard); O (Unclassified); and NL (Not listed) [29].

Table S2. Physicochemical Properties of Raw Pesticide Wastewater

Parameter	Unit	Concentration			
		Day 1	Day 2	Day 3	Average
pH	-	6.3	6.0	5.8	6.0 ± 0.25
DO	mg/L	0.6	0.7	0.8	0.7 ± 0.1
Water temperature	°C	30.5	28.4	28.2	29 ± 1.27
Electrical conductivity (EC)	µS/cm	394	334	345	357 ± 31.94
Nitrite (N-NO ₂ ⁻)	mg/L	0.79	0.65	0.52	0.65 ± 0.14
Nitrate (N-NO ₃ ⁻)	mg/L	0.30	0.18	0.84	0.44 ± 0.35
Suspended solid (SS)	mg/L	24.3	27	38	29.77 ± 7.26
Chemical oxygen demand (COD)	mg/L	775	557	522	618.00 ± 137.09

Table S3. Physicochemical Water Quality Parameters at Each Stage of the Treatment System

Parameter	Unit	Input	After coagulation/floc. (n = 3)	After cold plasma (n = 3)	After ion exchange (n = 3)
pH	-	6.36 ± 0.10	9.70 ± 0.04	9.57 ± 0.05	7.71 ± 0.24
EC	µS/cm	361 ± 20	618 ± 53	618 ± 50	789 ± 83
DO	mg/L	0.67 ± 0.81	2.7 ± 0.5	4.3 ± 0.26	4.37 ± 0.06
SS	mg/L	19.40 ± 2.00	2.3 ± 0.51	3.41 ± 0.85	0.58 ± 0.16
COD	mg/L	510.0 ± 59.0	285.0 ± 68.0	239.0 ± 36.0	67.8 ± 16.8