NUMERICAL DATA

The impact of organophosphorus pesticide on Solanum melongena, Capsicum annum and Soil (2018)

Table 1: Freundlich Changes in soil quality after the addition of Malathion.

Malathion					Eggplant					
Concentration	**Total Nitrogen (%)**		**Available Phosphorus (ppm)**		**Potassium (ppm)**		**pH**		**EC**	
	7 days	**14 days**	**7 days**	**14 days**	**7 days**	**14 days**	**7 days**	**14 days**	**7 days**	**14days**
Control	0.006 ±0.01	0.012± 0.003	6.05± 0.86	6.19± 0.69	28.43± 2.24	30.88±2. 03	7.34±0 .4	7.31±0 .6	0.92±0.1	0.95±0.05
2 ml L^{-1}	0.021 ±0.05	0.027± 0.02	6.21± 1.55	6.54± 1.38	33.60± 1.08	40.72±1. 48	7.23±0 .5	7.26±0 .5	1.15±0.1	1.04±0.09
4 ml L^{-1}	0.013 ±0.00 4	0.022± 0.005	6.12± 1.95	6.29± 0.99	32.26± 2.01	36.69±2. 00	7.23±0 .2	7.22±0 .8	1.09±0.8	1.00±0.3
6 ml L^{-1}	0.011 ±0.01	0.020± 0.004	6.02± 0.93	6.27± 2.04	29.01± 1.82	35.65±3. 39	7.21±0 .2	7.14±0 .2	1.01±0.4	0.96±0.6
Green chilli Plant										
Control	0.009 ±00.3	0.017± 0.11	6.01± 1.73	6.42± 0.64	29.41± 2.06	29.52±1. 47	7.32±0 .09	7.33±0 .5	0.96±0.07	0.99±0.02
2 ml L^{-1}	0.025 ±0.08	0.031± 0.01	6.88± 0.93	7.31± 0.99	36.58± 3.24	38.32±3. 54	7.26±0 .28	7.28±0 .61	1.21±0.02	1.08±0.01
4 ml L^{-1}	0.016 ±0.03	0.025± 0.003	6.43± 0.88	6.98± 1.39	33.84± 1.09	41.78±5. 24	7.24±0 .03	7.27±0 .01	1.16±0.04	1.13±0.08
6 ml L^{-1}	0.017 ±0.12	0.021± 0.013	6.08± 1.92	6.79± 1.02	34.32± 1.76	41.04±0. 62	7.18±0 .01	7.21±0 .7	1.15±0.09	1.07±0.04

Source: www.asianjab.com/.../16-125.-The-impact-of-organophosphorus-pesticide-on-Solanum melongena, Capsicum annum and Soil

Organophosphate pesticide in agricultural soils from the Yangtze River Delta of China: concentration, distribution, and risk assessment (2018)

Table 1: Statistical summary of the concentrations (ng g−1) of OPPs in agricultural soils across the YRD region.

Compound	Concentration range				Mean concentration [detection frequency (%)]				
	Jiangsu	**Zhejiang**	**Shanghai**	**Total**	**Jiangsu**	**Zhejiang**	**Shanghai**		**Total**
O,O,O-triethylphosphorothioate	ND	ND	ND	ND	ND [0]	ND [0]	ND [0]		ND [0]
Thionazin	ND–49.0	ND–38.2	ND–13.4	ND–49.0	18.2 [52.2]	17.3 [4.13]	13.4 [3.33]		18.1 [22.0]
Sulfotep	ND–16.6	ND–8.39	ND–5.61	ND–16.6	8.07 [13.3]	6.98 [3.31]	5.61	[3.33]	7.67 [7.05]
Phorate	ND–82.9	ND–19.1	ND–24.2	ND–82.9	10.0 [27.8]	8.97 [4.14]	12.0	[10.0]	10.1 [13.7]
Dimethoate	ND–318	ND–201	ND–395	ND–395	56.6 [83.3]	33.3 [81.8]	113 [70.0]		50.8 [80.9]
Disulfoton	ND–120	ND–31.6	ND–12.6	ND–120		20.5 [10.0]	13.2	[29.8]	8.15 [26.7]
Methyl parathion	ND–55.6	ND–87.0	ND–12.2	ND–87.0		11.6 [91.1]	8.50	[8.0]	ND [3.33]
Parathion	ND–89.0	ND–73.7	ND–27.6	ND–89.0		14.1 [43.3]	9.56	[13.2]	11.3 [13.3]
Famphur	ND–23.8	ND–85.4	ND	ND–85.4		12.6 [5.56]	20.8	[10.7]	ND [0]
Total OPPs	ND–521	ND–208	ND–440	ND–521		81.8 [97.8]	41.6	[94.2]	116 [73.3]

Source: https://link.springer.com/article/10.1007/s11356-016-7664-3

Effect of interaction among storage periods, wheat varieties and seed treatments on insect infestation percentage. (2017)

Varieties					Storage periods/months						
				0			6			18	
Seed treatments			Sakha	Gem.	Giza	Sakha	Gem.	Giza	Sakha	Gem.	Giza
			93	10	168	93	10	168	93	10	168
Control			0.0	0.0	0.0	7.2	8.2	6.2	13.5	14.5	12.5
Recommended	does	of	0.0	0.0	0.0	0.0	0.0	0.0	8.0	9.0	7.0
malathion											
Half does of malathion			0.0	0.0	0.0	7.0	8.0	5.7	14.o	14.0	12.0
Scran ethanol			0.0	0.0	0.0	7.0	7.0	5.3	13.0	14.0	12.0
Nerium ethanol			0.0	0.0	0.0	7.0	8.0	6.1	13.7	14.0	13.0
Scran ethanol + malathion			0.0	0.0	0.0	0.0	0.0	0.0	8.8	9.0	8.0
Nerium ethanol + malathion			0.0	0.0	0.0	0.0	0.0	0.0	9.0	10.0	9.0
Scran ethanol+ half does of			0.0	0.0	0.0	2.7	3.0	2.33	8.7	8.7	8.3
malathion											
nerium ethanol+ half does of			0.0	0.0	0.0	4.3	3.7	2.3	9.7	11.0	7.7
malathion											
L.S.D at 0.05%							0.7				

Effect of interaction among storage periods, wheat varieties and seed treatments on seed dry weight loss percentage. (2017)

Varieties					Storage periods/months						
				0			6			18	
Seed treatments			Sakha	Gem.	Giza	Sakha	Gem.	Giza	Sakha	Gem.	Giza
			93	10	168	93	10	168	93	10	168
Control			0.0	0.0	0.0	2.9	3.1	2.6	7.9	8.1	7.6
Recommended	does	of	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.7	3.2
malathion											
Half does of malathion			0.0	0.0	0.0	2.3	2.4	2.0	7.9	8.0	7.8
Scran ethanol			0.0	0.0	0.0	1.9	2.0	1.9	7.9	7.9	7.8
Nerium ethanol			0.0	0.0	0.0	2.4	2.6	2.0	7.9	8.2	7.9
Scran ethanol + malathion			0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.9	3.4
Nerium ethanol + malathion			0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.5	3.9
Scran ethanol+ half does of			0.0	0.0	0.0	1.8	1.8	1.7	4.7	5.2	3.9
malathion											
nerium ethanol+ half does of			0.0	0.0	0.0	1.9	1.9	1.6	5.3	5.6	4.7
malathion											
L.S.D at 0.05%							0.2				

Source: https://pdfs.semanticscholar.org/f5a6/44fa79bc3bca075c3efff44565ea2c856cf1.pdf

Effect of temperature at different concentrations of Methyl Parathion on growth of Staphylococcus aureus (104 log cfu/ml) (2016)

Methyl Parathion concentration (µg/ml)	***Staphylococcus aureus* (104 log cfu/ml)**				
	10°C	**20°C**	**30°C**	**40°C**	**50°C**
100	100	100	100	1.812	1.255
150	0.845	1.763	1.954	1.799	1.176
200	0.903	1.707	1.949	1.732	1.00
250	0.698	1.662	1.949	1.698	0.954
300	0.301	1.602	1.903	1.643	0.954
350	0.301	1.342	1.869	1.505	0.602

Due to temperature- F(cal)5%=134.26> F(tab)5%=2.87, S.E= 0.071, C.D at 5%= 0.148(S)
Due to concentration- F(cal)5%=10.73 > F(tab)5%= 2.71, S.E= 0.071, C.D at 5%= 0.148(S)

Source: Jyotsna K. Peter at al.(2016), Organophosphate Pesticide (Methyl Parathion) Degrading Bacteria Isolated from Rhizospheric Soil of Selected Plants and Optimization of Growth Conditions for Degradation, International Journal of Research

Effect of pH and different concentrations of Methyl Parathion on growth of Pseudomonas aeruginosa (104 log cfu/ml). (2016)

Methyl Parathion concentration (µg/ml)	***Pseudomonas aeruginosa* (104 log cfu/ml)**						
	3	**4**	**5**	**6**	**7**	**8**	**9**
100	1.748	1.806	1.903	2.00	2.113	1.982	**1.939**
150	1.698	1.770	1.924	2.017	2.060	1.954	**1.903**
200	1.707	1.755	1.897	1.986	2.079	1.908	**1.880**
250	1.643	1.698	1.875	1.963	2.045	1.880	**1.875**
300	1.556	1.653	1.778	1.944	2.017	1.724	**1.732**
350	**1.518**	**1.505**	**1.785**	**1.851**	**1.995**	**1.698**	**1.698**

Due to pH- F(cal)5%= 93.36> F(tab)5%= 2.42, S.E= 0.019, C.D at 5%= 0.039(S)
Due to concentration- F(cal)5%=36.22> F(tab)5%= 2.53, S.E= 0.019, C.D at 5% = 0.039(S)

Source: Harison Masih at al. (2016), Organophosphate Pesticide (Methyl Parathion) Degrading Bacteria Isolated from Rhizospheric Soil of Selected Plants and Optimization of Growth Conditions for Degradation, International Journal of Research

Bacterial population at 104 cfu/ml in soil from rhizosphere of selected plants amended with different concentration of Methyl Parathion at periodic time intervals (2016)

Concentration of Methyl Parathion (µg/ml	Time (h)			
	24	48	72	96
Cabbage				
100	221.13±27.64	195.9+27.13	161.8±37.34	**134.06±25.87**
150	144.4±30.75	128.26+27.47	94.73±33.81	**68.86±32.87**
200	128.6±16.12	105.80+14.87	81.13±15.94	**59±19.69**
250	120.46±13.65	107.00+11.22	87.53±18.49	**61.73±18.29**
300	72.2±13.11	61.73+18.29	53.26±10.81	**29±12.28**
350	27.8±5.17	23.40+4.62	17.8±4.59	**12.66±2.69**
Guava				
100	235±34.46	206.80+24.69	184.13±23.09	**127.93±23.11**
150	184.73±10.32	165.73+17.33	144.26±13.43	**107.6±24.81**
200	119.2±12.82	114.53+12.88	102.53±16.68	**93.46±15.70**
250	121.93±8.51	113.73+11.82	101.86±15.67	**80.2±14.63**
300	99.33±9.15	92.13+10.08	83.563±12.21	**70.26±9.40**
350	45.66±11.60	39.40+11.67	32.53±9.86	**18.93±6.78**
Tomato				
100	218±28.75	194.53+26.12	169.26±29.74	**120.73±24.11**
150	154.6±33.09	126.80+24.84	89.73±15.73	**34.4±9.01**
200	117.06±22.04	77.73+19.57	41.13±16.91	**24.86±8.14**
250	129.86±15.11	112.60+13.71	90.93±12.28	**50.93±15.27**
300	62.6±9.89	56.13+8.64	44.40±5.67	**25.33±4.27**
350	**29.66±6.33**	**25.67+5.64**	**20.60±4.94**	**13.86±3.27**

Due to hours- F(cal)5%=51.196 > F(tab)5%=2.75, S.E=3.486, C.D at 5%= 7.055(S)
Due to concentration- F(cal)5%=171.696 > F(tab)5%=2.52, S.E=6.971, C.D at 5%=14.109(S) Due to plants - F(cal)5%=19.8043 > F(tab)5%=2.52, S.E= 4.500, C.D at 5%=9.108(S)
The values are mean of 15 replicates + SD.

Source: Yashab Kumar at al. (2016), Organophosphate Pesticide (Methyl Parathion) Degrading Bacteria Isolated from Rhizospheric Soil of Selected Plants and Optimization of Growth Conditions for Degradation, International Journal of Research

The spiked recoveries, relative standard deviation, and matrix effect of five organophosphate esters (2016)

Compound	50 ng			100 ng			Matrix effect[b]	
TnBP	75 ± 6[a]	89±4	80±2	114±2	80±4	74±2	92±1	**83±1**
TCEP	113±4	99±3	87±3	87±3	80±4	87±5	111±3	**98±3**
TPhP	56 ± 3	62 ± 1	64 ± 2	66 ± 1	58 ± 2	84 ± 3	97 ± 5	**96 ± 3**
TCPP	89 ± 4	94 ± 4	112 ±4	82 ± 1	89 ± 6	106 ± 7	96 ± 4	**90 ± 2**
TBEP	**107 ± 1**	**119 ± 1**	**106 ±1**	**114 ± 1**	**117 ± 5**	**109 ± 8**	**121 ± 1**	**108 ± 2**

[a]Spiked recovery, mean value (%) ± standard deviation
[b]Sewage sludge compost sample with sawdust as amendment

Source: Long Pang at al.(2016), Accelerated solvent extraction combined with solid phase extraction for the determination of organophosphate estersfrom sewage sludge compost by UHPLC–MS/MS, Anal Bioanal Chemistry.