

# 附錄



實驗毒物： Desmetryne 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 40.53 D ( $\mu\text{m}$ )： 4.262 Initial pH： 7.53 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.1 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	1.00	7.23	199500	6.23	1.294	1	0	0	0
0.04	1.18	1.18	28700	0.00	0.324	0.251	0.749	0.926	1.000
0.02	1.14	1.68	46300	0.54	0.564	0.436	0.564	0.830	0.913
0.01	0.94	2.52	89100	1.58	0.891	0.689	0.311	0.598	0.746
0.008	0.93	3.19	100800	2.26	0.953	0.736	0.264	0.535	0.637
0.0043	0.93	4.78	155600	3.85	1.170	0.904	0.096	0.238	0.382
0.002	0.95	6.53	194100	5.58	1.280	0.989	0.011	0.029	0.104
Control	0.92	7.33	206200	6.41	1.310	1	0	0	0
0.04	1.40	1.02	31800	-0.38	0.376	0.287	0.713	0.912	1.059
0.02	1.08	1.75	46200	0.67	0.562	0.429	0.571	0.837	0.895
0.01	0.93	2.53	78000	1.60	0.824	0.629	0.371	0.671	0.750
0.008	0.94	3.21	105900	2.27	0.977	0.746	0.254	0.525	0.646
0.0043	0.92	4.80	151200	3.88	1.155	0.882	0.118	0.288	0.395
0.002	0.92	6.24	185400	5.32	1.257	0.959	0.041	0.109	0.170
Control	0.92	7.18	194000	6.26	1.280	1	0	0	0
0.04	1.40	1.46	37200	0.06	0.454	0.355	0.645	0.876	0.990
0.02	1.15	1.80	60100	0.65	0.694	0.542	0.458	0.748	0.896
0.01	0.92	2.52	95800	1.60	0.927	0.724	0.276	0.549	0.744
0.008	0.93	3.19	102400	2.26	0.960	0.750	0.250	0.512	0.639
0.0043	0.90	4.65	154000	3.75	1.164	0.910	0.090	0.223	0.401
0.002	0.93	6.25	173900	5.32	1.225	0.957	0.043	0.112	0.150
Control	0.95	7.25	199900	6.30	1.295	1	0	0	0
0.04	1.33	1.22	32567	-0.11	0.385	0.297	0.701	0.905	1.017
0.02	1.12	1.74	50867	0.62	0.607	0.469	0.528	0.806	0.902
0.01	0.93	2.52	87633	1.59	0.881	0.681	0.318	0.607	0.747
0.008	0.93	3.20	103033	2.26	0.963	0.744	0.256	0.524	0.641
0.0043	0.92	4.74	153600	3.83	1.163	0.898	0.102	0.250	0.393
0.002	0.93	6.34	184467	5.41	1.254	0.969	0.031	0.083	0.142

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Hexazinone 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 46.67 D ( $\mu\text{m}$ )： 4.467 Initial pH： 7.35 EDTA(%):0

T( $^{\circ}\text{C}$ )： 24.2 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.82	7.67	251300	6.85	1.409	1	0	0	0
0.0584	1.18	0.32	16100	-0.86	0.035	0.025	0.975	0.995	1.126
0.03982	0.95	0.34	18100	-0.61	0.094	0.067	0.933	0.987	1.089
0.01991	0.99	2.39	90600	1.40	0.899	0.638	0.362	0.680	0.796
0.01504	0.85	4.19	153800	3.34	1.164	0.826	0.174	0.413	0.512
0.00973	0.75	5.55	171500	4.80	1.218	0.864	0.136	0.338	0.299
0.00486	0.89	6.96	241000	6.07	1.388	0.985	0.015	0.044	0.114
Control	0.90	7.74	257400	6.84	1.421	1	0	0	0
0.0584	1.01	0.40	16500	-0.61	0.048	0.034	0.966	0.994	1.089
0.03982	0.88	0.65	18100	-0.23	0.094	0.066	0.934	0.987	1.034
0.01991	0.90	2.44	96000	1.54	0.928	0.653	0.347	0.666	0.775
0.01504	0.86	4.28	145800	3.42	1.137	0.800	0.200	0.460	0.500
0.00973	0.80	5.80	186400	5.00	1.260	0.886	0.114	0.293	0.269
0.00486	0.92	7.01	235800	6.09	1.377	0.969	0.031	0.089	0.110
Control	0.74	8.12	262400	7.38	1.431	1	0	0	0
0.0584	1.02	0.40	15500	-0.62	0.016	0.011	0.989	0.998	1.084
0.03982	0.73	0.41	20600	-0.32	0.159	0.111	0.889	0.977	1.043
0.01991	0.97	2.64	116300	1.67	1.024	0.716	0.284	0.591	0.774
0.01504	0.91	4.70	169500	3.79	1.212	0.847	0.153	0.376	0.486
0.00973	0.77	5.93	202200	5.16	1.301	0.909	0.091	0.243	0.301
0.00486	0.88	6.52	223800	5.64	1.351	0.944	0.056	0.156	0.236
Control	0.82	7.84	257033	7.02	1.420	1	0	0	0
0.0584	1.07	0.37	16033	-0.70	0.033	0.023	0.977	0.996	1.099
0.03982	0.85	0.47	18933	-0.39	0.115	0.081	0.918	0.984	1.055
0.01991	0.95	2.49	100967	1.54	0.950	0.669	0.329	0.645	0.781
0.01504	0.87	4.39	156367	3.52	1.171	0.824	0.175	0.416	0.499
0.00973	0.77	5.76	186700	4.99	1.260	0.887	0.113	0.291	0.290
0.00486	0.90	6.83	233533	5.93	1.372	0.966	0.034	0.097	0.155

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Metribuzin 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 43.6 D ( $\mu\text{m}$ )： 4.367 Initial pH： 7.47 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 23.9 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.44	7.83	257900	7.39	1.422	1	0	0	0
0.15	0.47	0.47	30500	0.00	0.355	0.249	0.751	0.936	1.000
0.053	0.50	1.10	38800	0.60	0.475	0.334	0.666	0.902	0.919
0.035	0.55	1.95	52600	1.40	0.627	0.441	0.559	0.845	0.811
0.01	0.44	5.46	147700	5.02	1.144	0.804	0.196	0.454	0.321
0.005	0.47	6.86	212100	6.39	1.325	0.931	0.069	0.189	0.135
0.003	0.41	7.20	242000	6.79	1.390	0.978	0.022	0.065	0.081
Control	0.43	7.96	269800	7.53	1.445	1	0	0	0
0.15	0.76	0.66	26900	-0.10	0.292	0.202	0.798	0.953	1.013
0.053	0.47	1.03	38400	0.56	0.470	0.325	0.675	0.908	0.926
0.035	0.44	1.78	51200	1.34	0.614	0.425	0.575	0.858	0.822
0.01	0.50	5.56	151400	5.06	1.156	0.800	0.200	0.465	0.328
0.005	0.43	6.85	229300	6.42	1.363	0.944	0.056	0.159	0.147
0.003	0.42	7.11	232600	6.69	1.371	0.949	0.051	0.146	0.112
Control	0.37	7.20	244900	6.83	1.396	1	0	0	0
0.15	0.53	0.46	23000	-0.07	0.214	0.153	0.847	0.965	1.010
0.053	0.46	1.03	40500	0.57	0.497	0.356	0.644	0.889	0.917
0.035	0.45	1.74	55200	1.29	0.651	0.467	0.533	0.825	0.811
0.01	0.44	5.33	150100	4.89	1.152	0.825	0.175	0.412	0.284
0.005	0.44	6.26	204100	5.82	1.305	0.935	0.065	0.177	0.148
0.003	0.38	6.78	223800	6.40	1.351	0.968	0.032	0.092	0.063
Control	0.41	7.66	257533	7.25	1.421	1	0	0	0
0.15	0.59	0.53	26800	-0.06	0.287	0.202	0.796	0.951	1.008
0.053	0.48	1.05	39233	0.58	0.481	0.338	0.662	0.900	0.920
0.035	0.48	1.82	53000	1.34	0.631	0.444	0.556	0.843	0.815
0.01	0.46	5.45	149733	4.99	1.150	0.810	0.191	0.444	0.312
0.005	0.45	6.66	215167	6.21	1.331	0.937	0.063	0.175	0.143
0.003	0.40	7.03	232800	6.63	1.371	0.965	0.036	0.102	0.086

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Bromacil 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 45.12 D ( $\mu\text{m}$ )： 4.417 Initial pH： 7.53 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 23.8 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.63	7.55	256200	6.92	1.419	1	0	0	0
0.12	0.80	0.78	30800	-0.02	0.360	0.254	0.746	0.934	1.003
0.06	0.67	1.05	37300	0.38	0.455	0.321	0.679	0.908	0.945
0.036	0.69	1.63	40300	0.94	0.494	0.348	0.652	0.895	0.864
0.012	0.70	2.95	87100	2.25	0.880	0.620	0.380	0.701	0.675
0.006	0.78	4.83	140700	4.05	1.119	0.789	0.211	0.479	0.415
0.003	0.73	6.83	194500	6.10	1.281	0.903	0.097	0.256	0.118
Control	0.60	7.83	261200	7.23	1.429	1	0	0	0
0.12	0.70	0.70	29700	0.00	0.342	0.239	0.761	0.940	1.000
0.06	0.65	0.92	33400	0.27	0.400	0.280	0.720	0.925	0.963
0.036	0.67	1.56	42800	0.89	0.524	0.367	0.633	0.887	0.877
0.012	0.62	3.47	97200	2.85	0.934	0.654	0.346	0.666	0.606
0.006	0.71	4.56	132900	3.85	1.091	0.764	0.236	0.521	0.467
0.003	0.67	6.38	173700	5.71	1.225	0.857	0.143	0.355	0.210
Control	0.64	7.54	243900	6.90	1.394	1	0	0	0
0.12	0.77	0.83	27100	0.06	0.296	0.212	0.788	0.947	0.991
0.06	0.70	1.03	35700	0.33	0.434	0.311	0.689	0.910	0.952
0.036	0.66	1.53	43100	0.87	0.528	0.378	0.622	0.877	0.874
0.012	0.65	3.56	113100	2.91	1.010	0.724	0.276	0.571	0.578
0.006	0.66	4.62	133500	3.96	1.093	0.784	0.216	0.482	0.426
0.003	0.58	6.70	178500	6.12	1.238	0.888	0.112	0.286	0.113
Control	0.62	7.64	253767	7.02	1.414	1	0	0	0
0.12	0.76	0.77	29200	0.01	0.332	0.235	0.764	0.941	0.998
0.06	0.67	1.00	35467	0.33	0.430	0.304	0.696	0.914	0.953
0.036	0.67	1.57	42067	0.90	0.515	0.365	0.635	0.887	0.872
0.012	0.66	3.33	99133	2.67	0.941	0.666	0.332	0.648	0.619
0.006	0.72	4.67	135700	3.95	1.101	0.779	0.221	0.494	0.437
0.003	0.66	6.64	182233	5.98	1.248	0.883	0.117	0.300	0.148

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Monolinuron 初始細胞密度(cells/mL)： 15000  
 MCV (µm<sup>3</sup>)： 42.96 D (µm)： 4.345 Initial pH： 7.44 EDTA(%) :0  
 T(°C)： 24 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	µspecific	µrelative			
Control	1.06	7.58	227800	6.52	1.360	1	0	0	0
1.5	1.20	1.44	31400	0.24	0.369	0.272	0.728	0.923	0.963
1	1.04	1.50	48000	0.46	0.582	0.428	0.572	0.845	0.929
0.7	0.90	1.66	68800	0.76	0.762	0.560	0.440	0.747	0.883
0.453	1.02	2.60	68500	1.58	0.759	0.558	0.442	0.749	0.758
0.3	0.88	3.02	160500	2.14	1.185	0.871	0.129	0.316	0.672
0.15	0.96	5.58	182300	4.62	1.249	0.918	0.082	0.214	0.291
0.06	0.96	6.12	210300	5.16	1.320	0.971	0.029	0.082	0.209
Control	0.88	7.26	200100	6.38	1.295	1	0	0	0
1.5	1.10	1.25	37900	0.15	0.463	0.358	0.642	0.876	0.976
1	0.98	1.64	50400	0.66	0.606	0.468	0.532	0.809	0.897
0.7	0.96	2.04	79800	1.08	0.836	0.645	0.355	0.650	0.831
0.453	0.86	2.58	115300	1.72	1.020	0.787	0.213	0.458	0.730
0.3	0.88	2.82	103900	1.94	0.968	0.747	0.253	0.520	0.696
0.15	1.01	4.90	137200	3.89	1.107	0.854	0.146	0.340	0.390
0.06	0.87	6.52	208500	5.65	1.316	1.016	-0.016	-0.045	0.114
Control	0.92	7.36	215200	6.44	1.332	1	0	0	0
1.5	2.40	2.76	51800	0.36	0.620	0.465	0.535	0.816	0.944
1	2.02	2.48	62100	0.46	0.710	0.533	0.467	0.765	0.929
0.7	1.66	2.44	71500	0.78	0.781	0.586	0.414	0.718	0.879
0.453	1.42	2.96	84900	1.54	0.867	0.651	0.349	0.651	0.761
0.3	0.82	4.58	114700	3.76	1.017	0.764	0.236	0.502	0.416
0.15	1.02	4.78	136800	3.76	1.105	0.830	0.170	0.392	0.416
0.06	0.88	6.02	201200	5.14	1.298	0.975	0.025	0.070	0.202
Control	0.95	7.40	214367	6.45	1.329	1	0	0	0
1.5	1.57	1.82	40367	0.25	0.484	0.365	0.628	0.873	0.961
1	1.35	1.87	53500	0.53	0.633	0.476	0.522	0.807	0.918
0.7	1.17	2.05	73367	0.87	0.793	0.597	0.403	0.707	0.865
0.453	1.10	2.71	89567	1.61	0.882	0.665	0.328	0.626	0.750
0.3	0.86	3.47	126367	2.61	1.057	0.794	0.199	0.441	0.595
0.15	1.00	5.09	152100	4.09	1.154	0.867	0.129	0.312	0.366
0.06	0.90	6.22	206667	5.32	1.311	0.986	0.014	0.039	0.175

IR : Inhibition rate      Biomass : Yield f (Final yield based on cell density)

實驗毒物： Ethidimuron 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 39.57 D ( $\mu\text{m}$ )： 4.228 Initial pH： 7.61 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.1 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.61	8.27	243800	7.66	1.394	1	0	0	0
0.256	0.68	0.65	17400	-0.03	0.074	0.053	0.947	0.990	1.004
0.128	0.72	1.96	41100	1.24	0.504	0.361	0.639	0.886	0.838
0.09	0.66	3.04	65600	2.38	0.738	0.529	0.471	0.779	0.689
0.05	0.62	4.56	115800	3.94	1.022	0.733	0.267	0.559	0.486
0.032	0.69	6.06	170400	5.37	1.215	0.872	0.128	0.321	0.299
0.008	0.59	7.88	234400	7.29	1.374	0.986	0.014	0.041	0.048
Control	0.57	8.53	247400	7.96	1.401	1	0	0	0
0.256	0.79	0.75	18300	-0.04	0.099	0.071	0.929	0.986	1.005
0.128	0.65	1.88	44500	1.23	0.544	0.388	0.612	0.873	0.845
0.09	0.64	2.83	62400	2.19	0.713	0.509	0.491	0.796	0.725
0.05	0.63	4.51	117700	3.88	1.030	0.735	0.265	0.558	0.513
0.032	0.55	6.33	178100	5.78	1.237	0.883	0.117	0.298	0.274
0.008	0.65	7.93	229400	7.28	1.364	0.973	0.027	0.077	0.085
Control	0.50	8.59	248400	8.09	1.403	1	0	0	0
0.256	0.76	0.66	14700	-0.10	-0.010	-0.007	1.007	1.001	1.012
0.128	0.70	2.00	43000	1.30	0.527	0.375	0.625	0.880	0.839
0.09	0.67	2.93	68800	2.26	0.762	0.543	0.457	0.769	0.721
0.05	0.66	4.62	119800	3.96	1.039	0.740	0.260	0.551	0.511
0.032	0.60	6.40	178200	5.80	1.237	0.882	0.118	0.301	0.283
0.008	0.68	7.96	233500	7.28	1.373	0.978	0.022	0.064	0.100
Control	0.56	8.46	246533	7.90	1.400	1	0	0	0
0.256	0.74	0.69	16800	-0.06	0.055	0.039	0.960	0.992	1.007
0.128	0.69	1.95	42867	1.26	0.525	0.375	0.625	0.880	0.841
0.09	0.66	2.93	65600	2.28	0.737	0.527	0.473	0.781	0.712
0.05	0.64	4.56	117767	3.93	1.030	0.736	0.264	0.556	0.503
0.032	0.61	6.26	175567	5.65	1.230	0.879	0.121	0.307	0.285
0.008	0.64	7.92	232433	7.28	1.370	0.979	0.021	0.061	0.078

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Fenuron 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 44.14 D ( $\mu\text{m}$ )： 4.385 Initial pH： 7.47 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.1 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.76	8.64	264200	7.88	1.434	1	0	0	0
3.2	0.74	1.53	21800	0.79	0.187	0.130	0.870	0.973	0.900
2	0.98	3.08	64500	2.10	0.729	0.508	0.492	0.801	0.734
1.6	0.92	3.27	71300	2.35	0.779	0.543	0.457	0.774	0.702
0.8	0.96	6.35	104000	5.39	0.968	0.675	0.325	0.643	0.316
0.4	0.81	6.95	188400	6.14	1.265	0.882	0.118	0.304	0.221
0.2	0.83	7.68	239200	6.85	1.385	0.965	0.035	0.100	0.131
Control	0.64	8.45	259200	7.81	1.425	1	0	0	0
3.2	0.97	1.46	27300	0.49	0.299	0.210	0.790	0.950	0.937
2	1.05	2.91	56700	1.86	0.665	0.467	0.533	0.829	0.762
1.6	0.98	3.01	64600	2.03	0.730	0.512	0.488	0.797	0.740
0.8	1.03	6.52	118000	5.49	1.031	0.724	0.276	0.578	0.297
0.4	0.90	7.01	189500	6.11	1.268	0.890	0.110	0.285	0.218
0.2	0.76	8.36	255300	7.60	1.417	0.995	0.005	0.016	0.027
Control	0.54	8.71	266900	8.17	1.439	1	0	0	0
3.2	1.06	1.70	29900	0.64	0.345	0.240	0.760	0.941	0.922
2	1.05	2.71	55100	1.66	0.651	0.452	0.548	0.841	0.797
1.6	0.94	3.11	62600	2.17	0.714	0.496	0.504	0.811	0.734
0.8	0.97	5.88	99600	4.91	0.947	0.658	0.342	0.664	0.399
0.4	0.89	7.13	190300	6.24	1.270	0.882	0.118	0.304	0.236
0.2	0.79	8.37	256500	7.58	1.420	0.986	0.014	0.041	0.072
Control	0.65	8.60	263433	7.95	1.433	1	0	0	0
3.2	0.92	1.56	26333	0.64	0.277	0.193	0.804	0.954	0.920
2	1.03	2.90	58767	1.87	0.682	0.476	0.524	0.824	0.764
1.6	0.95	3.13	66167	2.18	0.741	0.517	0.482	0.794	0.725
0.8	0.99	6.25	107200	5.26	0.982	0.685	0.314	0.629	0.338
0.4	0.87	7.03	189400	6.16	1.268	0.885	0.115	0.298	0.225
0.2	0.79	8.14	250333	7.34	1.407	0.982	0.018	0.053	0.077

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)



實驗毒物： Tebuthiuron 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 43.24 D ( $\mu\text{m}$ )： 4.335 Initial pH： 7.63 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.1 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.51	8.52	234600	8.01	1.375	1	0	0	0
0.244	0.58	1.38	24200	0.80	0.239	0.174	0.826	0.958	0.900
0.15	0.52	2.94	47900	2.42	0.581	0.422	0.578	0.850	0.698
0.0815	0.59	3.83	80500	3.24	0.840	0.611	0.389	0.702	0.596
0.027	0.62	6.94	152500	6.32	1.160	0.843	0.157	0.374	0.211
0.0085	0.60	7.29	208800	6.69	1.317	0.958	0.042	0.117	0.165
0.003	0.60	8.04	220100	7.44	1.343	0.977	0.023	0.066	0.071
Control	0.45	8.63	246400	8.18	1.399	1	0	0	0
0.244	0.61	1.45	28200	0.84	0.316	0.226	0.774	0.943	0.897
0.15	0.55	2.60	34900	2.05	0.422	0.302	0.698	0.914	0.749
0.0815	0.56	3.78	77900	3.22	0.824	0.589	0.411	0.728	0.606
0.027	0.55	6.39	142300	5.84	1.125	0.804	0.196	0.450	0.286
0.0085	0.61	7.89	209800	7.28	1.319	0.943	0.057	0.158	0.110
0.003	0.61	8.14	212200	7.53	1.325	0.947	0.053	0.148	0.079
Control	0.50	8.54	254500	8.04	1.416	1	0	0	0
0.244	0.68	1.53	23100	0.85	0.216	0.153	0.847	0.966	0.894
0.15	0.67	2.91	34300	2.24	0.414	0.292	0.708	0.919	0.721
0.0815	0.54	3.11	70800	2.57	0.776	0.548	0.452	0.767	0.680
0.027	0.56	6.85	131800	6.29	1.087	0.768	0.232	0.512	0.218
0.0085	0.68	7.35	199400	6.67	1.294	0.914	0.086	0.230	0.170
0.003	0.72	8.21	231900	7.49	1.369	0.967	0.033	0.094	0.068
Control	0.49	8.56	245167	8.08	1.397	1	0	0	0
0.244	0.62	1.45	25167	0.83	0.257	0.184	0.815	0.956	0.897
0.15	0.58	2.82	39033	2.24	0.472	0.339	0.658	0.896	0.723
0.0815	0.56	3.57	76400	3.01	0.813	0.583	0.417	0.733	0.627
0.027	0.58	6.73	142200	6.15	1.124	0.805	0.195	0.447	0.239
0.0085	0.63	7.51	206000	6.88	1.310	0.938	0.062	0.170	0.148
0.003	0.64	8.13	221400	7.49	1.346	0.964	0.036	0.103	0.073

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Bentazone 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 40.65 D ( $\mu\text{m}$ )： 4.226 Initial pH： 7.65 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.6 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.59	8.39	252100	7.80	1.411	1	0	0	0
10	1.12	1.12	26500	0.00	0.285	0.202	0.798	0.951	1.000
5	0.84	1.51	36400	0.67	0.443	0.314	0.686	0.910	0.914
1.25	0.72	3.66	82500	2.94	0.852	0.604	0.396	0.715	0.623
0.5	0.50	6.56	129200	6.06	1.077	0.763	0.237	0.518	0.223
0.25	0.50	7.13	178800	6.63	1.239	0.878	0.122	0.309	0.150
0.125	0.60	7.97	239600	7.37	1.385	0.982	0.018	0.053	0.055
Control	0.40	8.51	248200	8.11	1.403	1	0	0	0
10	0.97	0.95	24600	-0.02	0.247	0.176	0.824	0.959	1.002
5	0.77	1.79	36700	1.02	0.447	0.319	0.681	0.907	0.874
1.25	0.61	3.92	91600	3.31	0.905	0.645	0.355	0.672	0.592
0.5	0.51	6.89	138700	6.38	1.112	0.793	0.207	0.470	0.213
0.25	0.52	7.23	180500	6.71	1.244	0.886	0.114	0.290	0.173
0.125	0.53	7.88	222300	7.35	1.348	0.961	0.039	0.111	0.094
Control	0.50	8.24	254500	7.74	1.416	1	0	0	0
10	1.02	1.01	23100	-0.01	0.216	0.153	0.847	0.966	1.001
5	0.67	1.71	37300	1.04	0.455	0.322	0.678	0.907	0.866
1.25	0.54	3.85	85800	3.31	0.872	0.616	0.384	0.704	0.572
0.5	0.56	6.35	131800	5.79	1.087	0.768	0.232	0.512	0.252
0.25	0.68	7.21	181400	6.53	1.246	0.880	0.120	0.305	0.156
0.125	0.72	7.38	221900	6.66	1.347	0.952	0.048	0.136	0.140
Control	0.50	8.38	251600	7.88	1.410	1	0	0	0
10	1.04	1.03	24733	-0.01	0.249	0.177	0.823	0.959	1.001
5	0.76	1.67	36800	0.91	0.449	0.318	0.682	0.908	0.885
1.25	0.62	3.81	86633	3.19	0.876	0.622	0.378	0.697	0.596
0.5	0.52	6.60	133233	6.08	1.092	0.774	0.225	0.500	0.229
0.25	0.57	7.19	180233	6.62	1.243	0.882	0.118	0.302	0.160
0.125	0.62	7.74	227933	7.13	1.360	0.965	0.035	0.100	0.096

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Oryzalin 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 43.44 D ( $\mu\text{m}$ )： 4.361 Initial pH： 7.46 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 23.5 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.80	8.82	288400	8.02	1.478	1	0	0	0
0.5	1.01	1.77	26500	0.76	0.285	0.193	0.807	0.958	0.905
0.3	0.96	1.82	44300	0.86	0.541	0.366	0.634	0.893	0.893
0.1	0.92	3.02	98100	2.10	0.939	0.635	0.365	0.696	0.738
0.05	0.94	6.18	116100	5.24	1.023	0.692	0.308	0.630	0.347
0.005	0.93	8.09	263400	7.16	1.433	0.969	0.031	0.091	0.107
0.003	0.89	8.63	270400	7.74	1.446	0.978	0.022	0.066	0.035
Control	0.76	8.66	270600	7.90	1.446	1	0	0	0
0.5	0.99	1.67	29800	0.68	0.343	0.237	0.763	0.942	0.914
0.3	0.91	1.68	41500	0.77	0.509	0.352	0.648	0.896	0.903
0.1	0.84	2.89	87800	2.05	0.884	0.611	0.389	0.715	0.741
0.05	0.83	6.25	108600	5.42	0.990	0.684	0.316	0.634	0.314
0.005	0.91	7.99	252600	7.08	1.412	0.976	0.024	0.070	0.104
0.003	0.82	8.51	259000	7.69	1.424	0.985	0.015	0.045	0.027
Control	0.78	8.65	271000	7.87	1.447	1	0	0	0
0.5	1.05	1.73	20100	0.68	0.146	0.101	0.899	0.980	0.914
0.3	0.95	1.91	44300	0.96	0.541	0.374	0.626	0.886	0.878
0.1	0.93	3.05	95800	2.12	0.927	0.641	0.359	0.684	0.731
0.05	0.95	6.21	116800	5.26	1.026	0.709	0.291	0.602	0.332
0.005	0.88	8.01	254100	7.13	1.415	0.978	0.022	0.066	0.094
0.003	0.86	8.40	262500	7.54	1.431	0.989	0.011	0.033	0.042
Control	0.78	8.71	276667	7.93	1.457	1	0	0	0
0.5	1.02	1.72	25467	0.71	0.258	0.177	0.818	0.960	0.911
0.3	0.94	1.80	43367	0.86	0.531	0.364	0.636	0.892	0.891
0.1	0.90	2.99	93900	2.09	0.917	0.629	0.371	0.698	0.736
0.05	0.91	6.21	113833	5.31	1.013	0.695	0.305	0.622	0.331
0.005	0.91	8.03	256700	7.12	1.420	0.974	0.026	0.076	0.102
0.003	0.86	8.51	263967	7.66	1.434	0.984	0.016	0.049	0.034

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Propyzamide 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 45.45 D ( $\mu\text{m}$ )： 4.428 Initial pH： 7.56 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.6 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.35	8.45	247500	8.10	1.402	1	0	0	0
4.44	0.83	0.66	16900	-0.17	0.060	0.043	0.957	0.992	1.021
3	0.68	1.79	25100	1.11	0.257	0.184	0.816	0.957	0.863
1.5	0.86	3.91	46000	3.05	0.560	0.400	0.600	0.867	0.623
0.5	0.74	5.58	107300	4.84	0.984	0.702	0.298	0.603	0.402
0.162	0.52	7.78	157300	7.26	1.175	0.838	0.162	0.388	0.104
0.054	0.46	8.26	237700	7.80	1.381	0.986	0.014	0.042	0.037
Control	0.44	8.33	234000	7.89	1.374	1	0	0	0
4.44	0.87	0.74	19900	-0.13	0.141	0.103	0.897	0.978	1.016
3	0.64	1.73	26100	1.09	0.277	0.202	0.798	0.949	0.862
1.5	0.68	3.56	46700	2.88	0.568	0.413	0.587	0.855	0.635
0.5	0.69	5.96	110100	5.27	0.997	0.726	0.274	0.566	0.332
0.162	0.74	7.24	148200	6.50	1.145	0.834	0.166	0.392	0.176
0.054	0.83	8.34	225500	7.51	1.355	0.987	0.013	0.039	0.048
Control	0.50	8.54	254500	8.04	1.416	1	0	0	0
4.44	0.68	0.72	18300	0.04	0.099	0.070	0.930	0.986	0.995
3	0.67	1.91	27300	1.24	0.299	0.212	0.788	0.949	0.846
1.5	0.54	3.85	48800	3.31	0.590	0.417	0.583	0.859	0.588
0.5	0.56	5.51	109200	4.95	0.993	0.701	0.299	0.607	0.384
0.162	0.68	7.35	141100	6.67	1.121	0.792	0.208	0.473	0.170
0.054	0.72	8.21	231900	7.49	1.369	0.967	0.033	0.094	0.068
Control	0.43	8.44	245333	8.01	1.397	1	0	0	0
4.44	0.79	0.71	18367	-0.09	0.100	0.072	0.928	0.985	1.011
3	0.66	1.81	26167	1.15	0.278	0.199	0.801	0.952	0.857
1.5	0.69	3.77	47167	3.08	0.573	0.410	0.590	0.860	0.615
0.5	0.66	5.68	108867	5.02	0.991	0.710	0.291	0.592	0.373
0.162	0.65	7.46	148867	6.81	1.147	0.821	0.179	0.419	0.150
0.054	0.67	8.27	231700	7.60	1.369	0.980	0.020	0.059	0.051

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Tebutam 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 46.46 D ( $\mu\text{m}$ )： 4.46 Initial pH： 7.42 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.9 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.51	8.69	267200	8.18	1.440	1	0	0	0
10.018	0.87	2.55	42400	1.68	0.520	0.361	0.639	0.891	0.795
8.3	0.77	3.71	67400	2.94	0.751	0.522	0.478	0.792	0.641
6.6	0.85	5.32	100100	4.47	0.949	0.659	0.341	0.663	0.454
4.413	0.95	6.83	188600	5.88	1.266	0.879	0.121	0.312	0.281
2.207	0.73	7.44	212700	6.71	1.326	0.921	0.079	0.216	0.180
0.73	0.66	8.49	246700	7.83	1.400	0.972	0.028	0.081	0.043
Control	0.44	8.58	267600	8.14	1.441	1	0	0	0
10.018	0.97	2.58	41100	1.61	0.504	0.350	0.650	0.897	0.802
8.3	0.94	3.66	56600	2.72	0.664	0.461	0.539	0.835	0.666
6.6	0.82	5.55	116100	4.73	1.023	0.710	0.290	0.600	0.419
4.413	0.89	6.82	180100	5.93	1.243	0.863	0.137	0.346	0.271
2.207	0.75	7.37	221300	6.62	1.346	0.934	0.066	0.183	0.187
0.73	0.83	8.49	234700	7.66	1.375	0.954	0.046	0.130	0.059
Control	0.43	8.78	274900	8.35	1.454	1	0	0	0
10.018	0.84	2.63	39900	1.79	0.489	0.336	0.664	0.904	0.786
8.3	0.83	3.61	57700	2.78	0.674	0.463	0.537	0.836	0.667
6.6	0.91	5.43	105100	4.52	0.973	0.669	0.331	0.653	0.459
4.413	0.92	6.85	182600	5.93	1.250	0.859	0.141	0.355	0.290
2.207	0.81	7.45	218500	6.64	1.339	0.921	0.079	0.217	0.205
0.73	0.59	8.52	241300	7.93	1.389	0.955	0.045	0.129	0.050
Control	0.46	8.68	269900	8.22	1.445	1	0	0	0
10.018	0.89	2.59	41133	1.69	0.504	0.349	0.651	0.897	0.794
8.3	0.85	3.66	60567	2.81	0.696	0.482	0.517	0.821	0.658
6.6	0.86	5.43	107100	4.57	0.982	0.680	0.320	0.639	0.444
4.413	0.92	6.83	183767	5.91	1.253	0.867	0.133	0.338	0.281
2.207	0.76	7.42	217500	6.66	1.337	0.925	0.075	0.206	0.191
0.73	0.69	8.50	240900	7.81	1.388	0.961	0.039	0.114	0.051

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Carbetamide 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 39.94 D ( $\mu\text{m}$ )： 4.241 Initial pH： 7.56 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 23.9 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.75	7.06	227100	6.31	1.359	1	0	0	0
5	0.98	0.78	34400	-0.20	0.415	0.305	0.695	0.909	1.032
3.51	0.91	1.35	58500	0.44	0.680	0.501	0.499	0.795	0.930
1.6	0.80	1.95	92400	1.15	0.909	0.669	0.331	0.635	0.818
0.8	0.82	2.68	141800	1.86	1.123	0.827	0.173	0.402	0.705
0.3	0.89	3.47	173800	2.58	1.225	0.902	0.098	0.251	0.591
0.1	0.82	5.12	197700	4.30	1.289	0.949	0.051	0.139	0.319
Control	0.77	7.04	212800	6.27	1.326	1	0	0	0
5	0.95	0.68	38200	-0.27	0.467	0.352	0.648	0.883	1.043
3.51	0.94	1.61	56700	0.67	0.665	0.501	0.499	0.789	0.893
1.6	0.85	1.68	93900	0.83	0.917	0.692	0.308	0.601	0.868
0.8	0.83	2.31	120800	1.48	1.043	0.787	0.213	0.465	0.764
0.3	0.80	3.29	181300	2.49	1.246	0.940	0.060	0.159	0.603
0.1	0.78	5.03	194700	4.25	1.282	0.966	0.034	0.092	0.322
Control	0.74	7.10	218500	6.36	1.339	1	0	0	0
5	0.90	0.79	40300	-0.11	0.494	0.369	0.631	0.876	1.017
3.51	0.93	0.88	49800	-0.05	0.600	0.448	0.552	0.829	1.008
1.6	0.85	1.63	85700	0.78	0.871	0.651	0.349	0.653	0.877
0.8	0.84	2.75	120800	1.91	1.043	0.779	0.221	0.480	0.700
0.3	0.99	3.68	177800	2.69	1.236	0.923	0.077	0.200	0.577
0.1	0.85	5.11	196300	4.26	1.286	0.960	0.040	0.109	0.330
Control	0.75	7.07	219467	6.31	1.341	1	0	0	0
5	0.94	0.75	37633	-0.19	0.459	0.342	0.657	0.889	1.031
3.51	0.93	1.28	55000	0.35	0.648	0.483	0.516	0.804	0.944
1.6	0.83	1.75	90667	0.92	0.899	0.670	0.329	0.630	0.854
0.8	0.83	2.58	127800	1.75	1.070	0.797	0.202	0.448	0.723
0.3	0.89	3.48	177633	2.59	1.236	0.921	0.079	0.205	0.590
0.1	0.82	5.09	196233	4.27	1.286	0.958	0.042	0.114	0.324

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Dimethachlor 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 39.57 D ( $\mu\text{m}$ )： 4.228 Initial pH： 7.52 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 23.8 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.42	8.35	237500	7.93	1.381	1	0	0	0
0.05	0.49	0.90	25600	0.41	0.267	0.194	0.806	0.952	0.948
0.025	0.40	1.94	39500	1.54	0.484	0.351	0.649	0.890	0.806
0.0125	0.44	3.36	75300	2.92	0.807	0.584	0.416	0.729	0.632
0.008	0.46	5.05	138700	4.59	1.112	0.805	0.195	0.444	0.421
0.004	0.43	6.18	186000	5.75	1.259	0.912	0.088	0.231	0.275
0.001	0.43	7.70	222700	7.27	1.349	0.977	0.023	0.067	0.083
Control	0.46	8.08	230700	7.62	1.367	1	0	0	0
0.05	0.47	0.82	25900	0.35	0.273	0.200	0.800	0.949	0.954
0.025	0.38	1.91	39200	1.53	0.480	0.351	0.649	0.888	0.799
0.0125	0.38	3.03	73600	2.65	0.795	0.582	0.418	0.728	0.652
0.008	0.45	5.26	139500	4.81	1.115	0.816	0.184	0.423	0.369
0.004	0.49	6.14	181000	5.65	1.245	0.911	0.089	0.230	0.259
0.001	0.40	7.67	223900	7.27	1.352	0.989	0.011	0.032	0.046
Control	0.50	8.29	231200	7.79	1.368	1	0	0	0
0.05	0.48	0.93	24800	0.45	0.251	0.184	0.816	0.955	0.942
0.025	0.47	2.03	40400	1.56	0.495	0.362	0.638	0.883	0.800
0.0125	0.39	3.57	80600	3.18	0.841	0.615	0.385	0.697	0.592
0.008	0.46	5.46	149800	5.00	1.151	0.841	0.159	0.377	0.358
0.004	0.58	5.98	180500	5.40	1.244	0.909	0.091	0.235	0.307
0.001	0.42	7.41	222100	6.99	1.348	0.985	0.015	0.042	0.103
Control	0.46	8.24	233133	7.78	1.372	1	0	0	0
0.05	0.48	0.88	25433	0.40	0.264	0.192	0.808	0.952	0.948
0.025	0.42	1.96	39700	1.54	0.487	0.355	0.645	0.887	0.802
0.0125	0.40	3.32	76500	2.92	0.814	0.594	0.406	0.718	0.625
0.008	0.46	5.26	142667	4.80	1.126	0.821	0.179	0.415	0.383
0.004	0.50	6.10	182500	5.60	1.249	0.911	0.089	0.232	0.280
0.001	0.42	7.59	222900	7.18	1.349	0.984	0.016	0.047	0.078

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Propachlor 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 39.27 D ( $\mu\text{m}$ )： 4.217 Initial pH： 7.57 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.1 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.61	8.58	254300	7.97	1.415	1	0	0	0
0.2451	0.72	0.48	15700	-0.24	0.023	0.016	0.984	0.997	1.030
0.081	0.68	1.56	28700	0.88	0.324	0.229	0.771	0.943	0.890
0.027	0.64	2.88	118800	2.24	1.035	0.731	0.269	0.566	0.719
0.0175	0.50	4.81	179700	4.31	1.242	0.877	0.123	0.312	0.459
0.009	0.42	6.33	209300	5.91	1.318	0.931	0.069	0.188	0.258
0.003	0.53	8.51	243700	7.98	1.394	0.985	0.015	0.044	-0.001
Control	0.46	8.62	258300	8.16	1.423	1	0	0	0
0.2451	0.70	0.37	16400	-0.33	0.045	0.031	0.969	0.994	1.040
0.081	0.44	0.93	25000	0.49	0.255	0.179	0.821	0.959	0.940
0.027	0.51	2.71	113500	2.20	1.012	0.711	0.289	0.595	0.730
0.0175	0.52	4.33	162800	3.81	1.192	0.838	0.162	0.393	0.533
0.009	0.40	6.71	207000	6.31	1.312	0.922	0.078	0.211	0.227
0.003	0.49	8.43	231700	7.94	1.369	0.962	0.038	0.109	0.027
Control	0.40	8.46	236300	8.06	1.379	1	0	0	0
0.2451	0.72	0.47	19100	-0.25	0.121	0.088	0.912	0.981	1.031
0.081	0.56	1.45	24100	0.89	0.237	0.172	0.828	0.959	0.890
0.027	0.44	2.90	121300	2.46	1.045	0.758	0.242	0.520	0.695
0.0175	0.39	4.25	157900	3.86	1.177	0.854	0.146	0.354	0.521
0.009	0.37	6.58	211500	6.21	1.323	0.960	0.040	0.112	0.230
0.003	0.36	8.31	226500	7.95	1.357	0.985	0.015	0.044	0.014
Control	0.49	8.55	249633	8.06	1.406	1	0	0	0
0.2451	0.71	0.44	17067	-0.27	0.063	0.045	0.954	0.991	1.034
0.081	0.56	1.31	25933	0.75	0.272	0.194	0.805	0.953	0.907
0.027	0.53	2.83	117867	2.30	1.031	0.733	0.267	0.562	0.715
0.0175	0.47	4.46	166800	3.99	1.204	0.856	0.143	0.353	0.505
0.009	0.40	6.54	209267	6.14	1.318	0.938	0.063	0.172	0.238
0.003	0.46	8.42	233967	7.96	1.373	0.977	0.023	0.067	0.013

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)



實驗毒物： Dicamba 初始細胞密度(cells/mL)： 15000  
 MCV ( $\mu\text{m}^3$ )： 40.9 D ( $\mu\text{m}$ )： 4.275 Initial pH： 7.58 EDTA(%) :0  
 T( $^{\circ}\text{C}$ )： 23.8 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.67	8.48	232200	7.81	1.370	1	0	0	0
35.08	0.96	0.68	20600	-0.28	0.159	0.116	0.884	0.974	1.036
30	0.85	1.19	30800	0.34	0.360	0.263	0.737	0.927	0.956
25.024	0.60	2.88	54000	2.28	0.640	0.468	0.532	0.820	0.708
20	0.69	6.15	100200	5.46	0.950	0.693	0.307	0.608	0.301
15.028	0.67	7.34	173000	6.67	1.223	0.893	0.107	0.273	0.146
10.064	0.68	8.34	223900	7.66	1.352	0.987	0.013	0.038	0.019
Control	0.56	8.69	265000	8.13	1.436	1	0	0	0
35.08	0.94	0.59	19500	-0.35	0.131	0.091	0.909	0.982	1.043
30	0.71	1.40	30000	0.69	0.347	0.241	0.759	0.940	0.915
25.024	0.79	2.83	57400	2.04	0.671	0.467	0.533	0.830	0.749
20	0.67	6.50	117600	5.83	1.030	0.717	0.283	0.590	0.283
15.028	0.63	7.50	200000	6.87	1.295	0.902	0.098	0.260	0.155
10.064	0.71	8.35	211300	7.64	1.323	0.921	0.079	0.215	0.060
Control	0.55	8.55	224800	8.00	1.354	1	0	0	0
35.08	0.98	0.76	22700	-0.22	0.207	0.153	0.847	0.963	1.028
30	0.78	1.43	31200	0.65	0.366	0.271	0.729	0.923	0.919
25.024	0.73	2.68	56100	1.95	0.660	0.487	0.513	0.804	0.756
20	0.61	5.82	97600	5.21	0.936	0.692	0.308	0.606	0.349
15.028	0.81	7.51	169800	6.70	1.213	0.896	0.104	0.262	0.163
10.064	0.87	8.57	229300	7.70	1.363	1.007	-0.007	-0.021	0.038
Control	0.59	8.57	240667	7.98	1.386	1	0	0	0
35.08	0.96	0.68	20933	-0.28	0.166	0.120	0.880	0.974	1.036
30	0.78	1.34	30667	0.56	0.357	0.258	0.742	0.931	0.930
25.024	0.71	2.80	55833	2.09	0.657	0.474	0.526	0.819	0.738
20	0.66	6.16	105133	5.50	0.972	0.701	0.298	0.601	0.311
15.028	0.70	7.45	180933	6.75	1.244	0.897	0.103	0.265	0.155
10.064	0.75	8.42	221500	7.67	1.346	0.972	0.030	0.085	0.039

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Chloramben 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 42.33 D ( $\mu\text{m}$ )： 4.324 Initial pH： 7.59 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 25.3 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.92	8.52	246400	7.60	1.399	1	0	0	0
24	1.10	0.91	19000	-0.19	0.118	0.084	0.916	0.983	1.025
20	1.08	1.11	22000	0.03	0.191	0.137	0.863	0.970	0.996
16	0.95	3.19	55600	2.24	0.655	0.468	0.532	0.825	0.705
12	0.78	6.97	188800	6.19	1.266	0.905	0.095	0.249	0.186
8	0.93	7.93	220300	7.00	1.343	0.960	0.040	0.113	0.079
4	0.83	8.43	244100	7.60	1.395	0.997	0.003	0.010	0.000
Control	0.94	8.78	257700	7.84	1.422	1	0	0	0
24	0.97	0.83	18200	-0.14	0.097	0.068	0.932	0.987	1.018
20	0.84	0.86	25600	0.02	0.267	0.188	0.812	0.956	0.997
16	0.84	3.56	62700	2.72	0.715	0.503	0.497	0.803	0.653
12	0.91	6.96	185600	6.05	1.258	0.885	0.115	0.297	0.228
8	0.75	7.24	218200	6.49	1.339	0.941	0.059	0.163	0.172
4	0.83	8.41	245500	7.58	1.398	0.983	0.017	0.050	0.033
Control	0.82	8.54	244500	7.72	1.396	1	0	0	0
24	1.02	0.92	18100	-0.10	0.094	0.067	0.933	0.986	1.013
20	0.87	0.95	25400	0.08	0.263	0.189	0.811	0.955	0.990
16	0.95	3.11	53800	2.16	0.639	0.458	0.542	0.831	0.720
12	0.86	6.85	157700	5.99	1.176	0.843	0.157	0.378	0.224
8	0.88	7.35	211400	6.47	1.323	0.948	0.052	0.144	0.162
4	0.82	8.21	231900	7.39	1.369	0.981	0.019	0.055	0.043
Control	0.89	8.61	249533	7.72	1.406	1	0	0	0
24	1.03	0.89	18433	-0.14	0.103	0.073	0.927	0.985	1.019
20	0.93	0.97	24333	0.04	0.241	0.171	0.828	0.960	0.994
16	0.91	3.29	57367	2.37	0.670	0.476	0.523	0.819	0.693
12	0.85	6.93	177367	6.08	1.233	0.877	0.121	0.308	0.213
8	0.85	7.51	216633	6.65	1.335	0.950	0.050	0.140	0.138
4	0.83	8.35	240500	7.52	1.387	0.987	0.013	0.039	0.025

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Clopyralid 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 42.15 D ( $\mu\text{m}$ )： 4.318 Initial pH： 7.44 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.9 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.61	8.38	234300	7.77	1.374	1	0	0	0
32	0.72	0.84	31000	0.12	0.363	0.264	0.736	0.927	0.985
16.04	0.68	4.06	54000	3.38	0.640	0.466	0.534	0.822	0.565
8	0.64	6.12	89300	5.48	0.892	0.649	0.351	0.661	0.295
2	0.70	7.33	149700	6.63	1.150	0.837	0.163	0.386	0.147
0.5	0.72	7.81	169300	7.09	1.212	0.882	0.118	0.296	0.088
0.125	0.53	8.35	233700	7.82	1.373	0.999	0.001	0.003	-0.006
Control	0.47	8.15	227200	7.68	1.359	1	0	0	0
32	0.58	0.81	33000	0.23	0.394	0.290	0.710	0.915	0.970
16.04	0.52	4.40	59000	3.88	0.685	0.504	0.496	0.793	0.495
8	0.51	6.43	101200	5.92	0.955	0.702	0.298	0.594	0.229
2	0.57	7.51	158200	6.94	1.178	0.867	0.133	0.325	0.096
0.5	0.48	7.90	187900	7.42	1.264	0.930	0.070	0.185	0.034
0.125	0.59	8.22	212000	7.63	1.324	0.975	0.025	0.072	0.007
Control	0.47	8.57	257000	8.10	1.421	1	0	0	0
32	0.62	0.67	26900	0.05	0.292	0.206	0.794	0.951	0.994
16.04	0.69	4.11	58500	3.42	0.680	0.479	0.521	0.820	0.578
8	0.61	6.24	96800	5.63	0.932	0.656	0.344	0.662	0.305
2	0.53	7.39	149400	6.86	1.149	0.809	0.191	0.445	0.153
0.5	0.57	7.82	174400	7.25	1.227	0.864	0.136	0.341	0.105
0.125	0.61	8.58	246800	7.97	1.400	0.986	0.014	0.042	0.016
Control	0.52	8.37	239500	7.85	1.385	1	0	0	0
32	0.64	0.77	30300	0.13	0.350	0.253	0.746	0.932	0.983
16.04	0.63	4.19	57167	3.56	0.669	0.483	0.517	0.812	0.546
8	0.59	6.26	95767	5.68	0.926	0.669	0.331	0.640	0.277
2	0.60	7.41	152433	6.81	1.159	0.838	0.163	0.388	0.132
0.5	0.59	7.84	177200	7.25	1.234	0.892	0.109	0.278	0.076
0.125	0.58	8.38	230833	7.81	1.366	0.986	0.013	0.039	0.006

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Picloram 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 43.27 D ( $\mu\text{m}$ )： 4.356 Initial pH： 7.48 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.2 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.61	8.10	214300	7.49	1.330	1	0	0	0
35.015	1.28	2.01	18100	0.73	0.094	0.071	0.929	0.984	0.903
13.017	0.96	4.62	59200	3.66	0.686	0.516	0.484	0.778	0.511
8.028	0.94	5.12	89300	4.18	0.892	0.671	0.329	0.627	0.442
3.0025	0.85	5.92	101400	5.07	0.956	0.719	0.281	0.566	0.323
1.4015	0.82	6.81	189300	5.99	1.268	0.953	0.047	0.125	0.200
0.703	0.69	7.81	203700	7.12	1.304	0.981	0.019	0.053	0.049
Control	0.47	8.15	210000	7.68	1.320	1	0	0	0
35.015	0.99	1.65	18800	0.66	0.113	0.086	0.914	0.981	0.914
13.017	0.94	4.69	64600	3.75	0.730	0.553	0.447	0.746	0.512
8.028	0.92	5.24	84100	4.32	0.862	0.653	0.347	0.646	0.438
3.0025	0.70	6.01	102200	5.31	0.959	0.727	0.273	0.553	0.309
1.4015	0.64	6.68	170200	6.04	1.214	0.920	0.080	0.204	0.214
0.703	0.65	7.78	207900	7.13	1.315	0.996	0.004	0.011	0.072
Control	0.66	8.14	213200	7.48	1.327	1	0	0	0
35.015	1.12	2.03	21100	0.91	0.171	0.129	0.871	0.969	0.878
13.017	1.29	4.16	41600	2.87	0.510	0.384	0.616	0.866	0.616
8.028	1.19	5.47	86300	4.28	0.875	0.659	0.341	0.640	0.428
3.0025	1.02	6.15	116300	5.13	1.024	0.772	0.228	0.489	0.314
1.4015	0.79	6.72	187000	5.93	1.262	0.951	0.049	0.132	0.207
0.703	0.77	7.92	209300	7.15	1.318	0.993	0.007	0.020	0.044
Control	0.58	8.13	212500	7.55	1.325	1	0	0	0
35.015	1.13	1.90	19333	0.77	0.126	0.095	0.904	0.978	0.898
13.017	1.06	4.49	55133	3.43	0.642	0.485	0.509	0.797	0.546
8.028	1.02	5.28	86567	4.26	0.876	0.661	0.339	0.638	0.436
3.0025	0.86	6.03	106633	5.17	0.980	0.739	0.260	0.536	0.315
1.4015	0.75	6.74	182167	5.99	1.248	0.941	0.058	0.154	0.207
0.703	0.70	7.84	206967	7.13	1.312	0.990	0.010	0.028	0.055

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： Triclopyr 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 43.27 D ( $\mu\text{m}$ )： 4.356 Initial pH： 7.57 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.2 Test duration： 48-h

Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.60	8.66	255000	8.06	1.417	1	0	0	0
40.09	0.95	0.90	13400	-0.05	-0.056	-0.040	1.040	1.007	1.006
20.04	0.94	2.16	18800	1.22	0.113	0.080	0.920	0.984	0.849
10	0.94	5.43	47800	4.49	0.579	0.409	0.591	0.863	0.443
5.01	0.91	6.82	140400	5.91	1.118	0.789	0.211	0.478	0.267
1	0.78	8.11	227500	7.33	1.360	0.960	0.040	0.115	0.091
0.501	0.80	8.41	237000	7.61	1.380	0.974	0.026	0.075	0.056
Control	0.44	8.48	248800	8.04	1.404	1	0	0	0
40.09	0.97	0.93	13900	-0.04	-0.038	-0.027	1.027	1.005	1.005
20.04	0.94	2.23	21600	1.29	0.182	0.130	0.870	0.972	0.840
10	0.79	5.56	48200	4.77	0.584	0.416	0.584	0.858	0.407
5.01	0.76	6.96	145600	6.20	1.136	0.809	0.191	0.441	0.229
1	0.74	8.14	228200	7.40	1.361	0.969	0.031	0.088	0.080
0.501	0.83	8.24	225500	7.41	1.355	0.965	0.035	0.100	0.078
Control	0.54	8.59	255100	8.05	1.417	1	0	0	0
40.09	1.06	0.90	11900	-0.16	-0.116	-0.082	1.082	1.013	1.020
20.04	0.90	2.07	21300	1.17	0.175	0.124	0.876	0.974	0.855
10	0.87	5.41	46400	4.54	0.565	0.399	0.601	0.869	0.436
5.01	0.91	6.81	146100	5.90	1.138	0.803	0.197	0.454	0.267
1	0.70	7.89	219200	7.19	1.341	0.946	0.054	0.150	0.107
0.501	0.87	8.21	234900	7.34	1.376	0.971	0.029	0.084	0.088
Control	0.53	8.58	252967	8.05	1.413	1	0	0	0
40.09	0.99	0.91	13067	-0.08	-0.070	-0.050	1.049	1.008	1.010
20.04	0.93	2.15	20567	1.23	0.157	0.111	0.888	0.977	0.848
10	0.87	5.47	47467	4.60	0.576	0.408	0.592	0.864	0.429
5.01	0.86	6.86	144033	6.00	1.131	0.801	0.199	0.458	0.254
1	0.74	8.05	224967	7.31	1.354	0.958	0.042	0.118	0.092
0.501	0.83	8.29	232467	7.45	1.370	0.970	0.030	0.086	0.074

IR : Inhibition rate

Biomass : Yield f (Final yield based on cell density)

實驗毒物： acetonitrile 初始細胞密度(cells/mL)： 15000

MCV ( $\mu\text{m}^3$ )： 43.15 D ( $\mu\text{m}$ )： 4.352 Initial pH： 7.61 EDTA(%) :0

T( $^{\circ}\text{C}$ )： 24.6 Test duration： 48-h

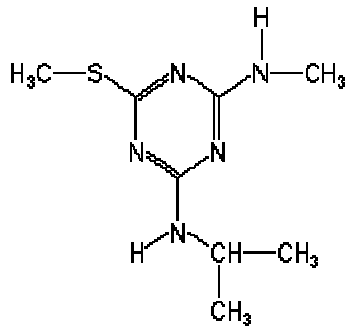
Conc mg/L	Initial DO mg/L	Final DO mg/L	Final cells cells/ml	Delta DO			IR ( growth rate)	IR (Biomass)	IR (DO)
				mg/L	$\mu\text{specific}$	$\mu\text{relative}$			
Control	0.61	8.23	243100	7.62	1.393	1	0	0	0
9072	0.72	3.03	60700	2.31	0.699	0.502	0.498	0.800	0.697
6550	0.68	4.12	78100	3.44	0.825	0.592	0.408	0.723	0.549
5040	0.64	5.62	168500	4.98	1.209	0.868	0.132	0.327	0.346
2520	0.70	7.31	204500	6.61	1.306	0.938	0.062	0.169	0.133
1260	0.72	7.93	238200	7.21	1.383	0.993	0.007	0.021	0.054
630	0.68	8.15	241600	7.47	1.390	0.998	0.002	0.007	0.020
Control	0.64	8.16	238300	7.52	1.383	1	0	0	0
9072	0.77	2.89	53000	2.12	0.631	0.456	0.544	0.830	0.718
6550	0.84	4.23	76100	3.39	0.812	0.587	0.413	0.726	0.549
5040	0.69	6.06	175100	5.37	1.229	0.889	0.111	0.283	0.286
2520	0.79	7.41	212600	6.62	1.326	0.959	0.041	0.115	0.120
1260	0.74	7.74	232300	7.00	1.370	0.991	0.009	0.027	0.069
630	0.83	8.01	225500	7.18	1.355	0.980	0.020	0.057	0.045
Control	0.71	8.23	234200	7.52	1.374	1	0	0	0
9072	0.68	3.03	61300	2.35	0.704	0.512	0.488	0.789	0.688
6550	0.67	3.41	69300	2.74	0.765	0.557	0.443	0.752	0.636
5040	0.74	5.61	168800	4.87	1.210	0.881	0.119	0.298	0.352
2520	0.76	7.35	201800	6.59	1.300	0.946	0.054	0.148	0.124
1260	0.68	7.85	221400	7.17	1.346	0.980	0.020	0.058	0.047
630	0.72	7.91	231900	7.19	1.369	0.996	0.004	0.010	0.044
Control	0.65	8.21	238533	7.55	1.383	1	0	0	0
9072	0.72	2.98	58333	2.26	0.678	0.490	0.509	0.806	0.701
6550	0.73	3.92	74500	3.19	0.801	0.579	0.421	0.734	0.578
5040	0.69	5.76	170800	5.07	1.216	0.879	0.121	0.303	0.328
2520	0.75	7.36	206300	6.61	1.311	0.947	0.052	0.144	0.125
1260	0.71	7.84	230633	7.13	1.366	0.988	0.012	0.035	0.056
630	0.74	8.02	233000	7.28	1.371	0.991	0.008	0.025	0.036

IR : Inhibition rate

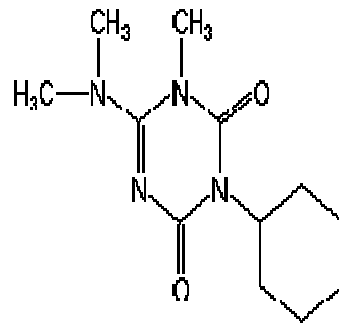
Biomass : Yield f (Final yield based on cell density)

# 結構式

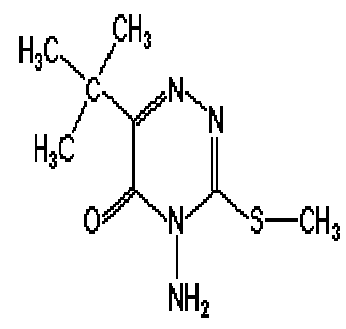




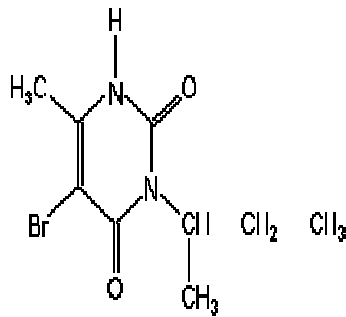
Desmetryne



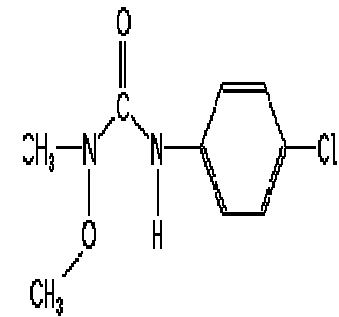
Hexazinone



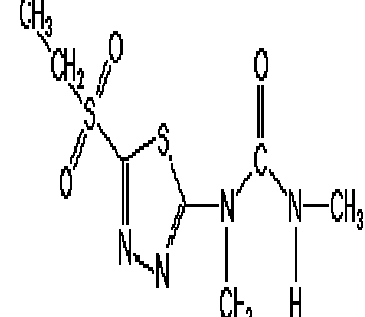
Metribuzin



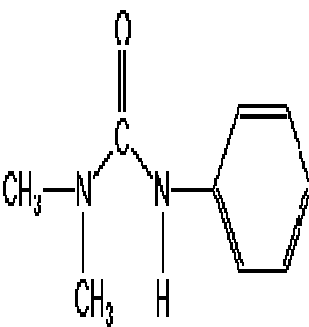
Bromacil



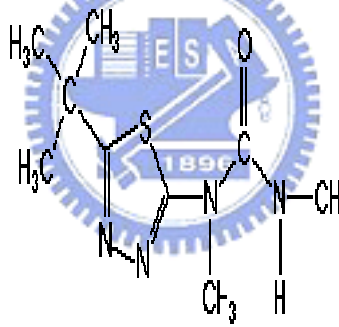
Monolinuron



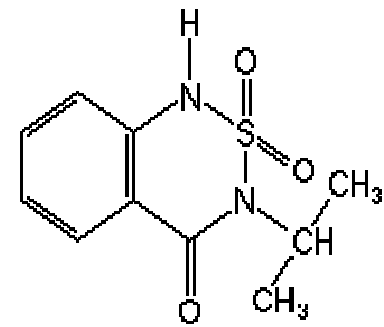
Ethidimuron



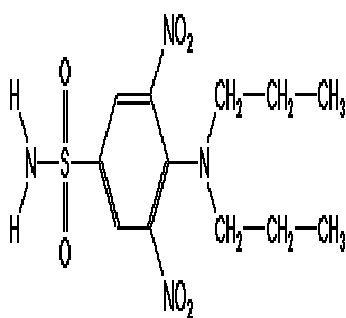
Fenuron



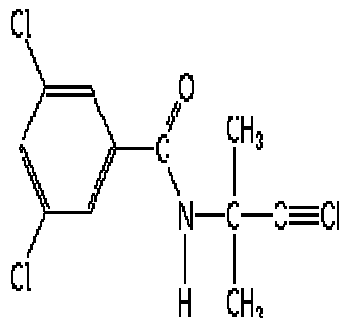
Tebuthiuron



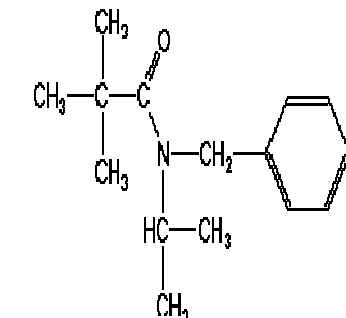
Bentazone



Oryzalin

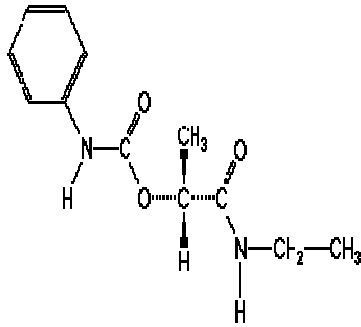


Propyzamide

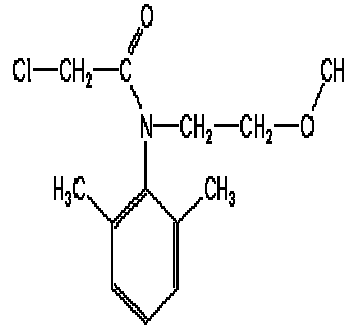


Tebutam

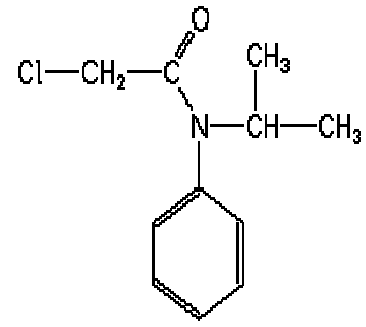




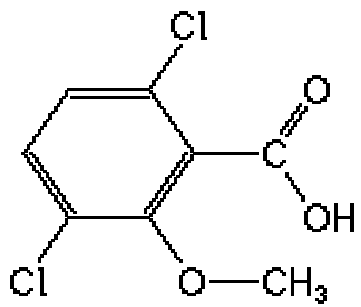
Carbetamide



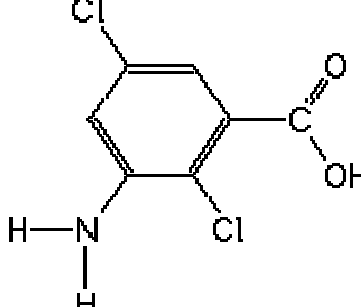
Dimethachlor



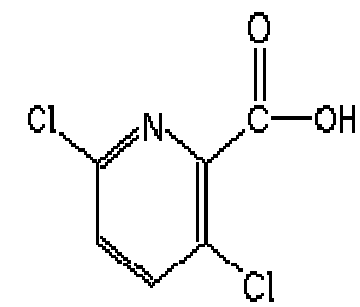
Propachlor



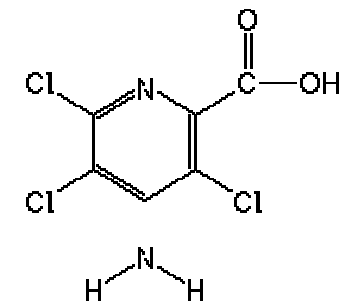
Dicamba



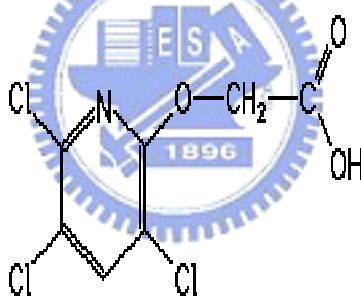
Chloramben



Clopyralid



Picloram



Triclopyr

# 檢量線



