

1 SUPPLEMENTARY

2 TABLE S1

3 Overview of the EC<sub>50</sub> value (and 95% confidence interval) with their model parameters ( $\beta_0$   
4 and  $\beta_1$ ) for each of the 21 experimental populations: original, control and carbaryl-selected  
5 populations of each of the seven original populations. The number of clones for which the  
6 EC<sub>50</sub> was determined is also given for each population. Original populations are ranked from  
7 low to high land use in the neighbourhood of the original pond (see Table S4).

8 TABLE S2

9 Overview of average values for four different ecological variables measured in the  
10 experimental jars in the acute carbaryl toxicity experiment.

11 TABLE S3

12 Overview of an overarching analysis of variance (ANOVA) on the EC<sub>50</sub> values estimated  
13 from concentration-response curves for each clonal isolate of the different population x  
14 treatment combinations separately, with population and selection history as independent  
15 variables.

16 TABLE S4

17 Percentage of agricultural coverage in an area of 50 m surrounding the pond for the seven  
18 ponds involved in the study: 1 – lowest land use intensity, 7 – highest land use intensity.  
19 (adapted from Coors et al. 2009). “Other” land use may reflect either more natural area (park,  
20 forest; OM1, OM2, Oud-Heverlee) or structures (e.g. roads in Moorsel), not related to  
21 agriculture. We use the percentage crop as the main criterion to rank the ponds from low to  
22 high land use in their neighborhood, but within the ponds with no arable land we use the  
23 presence of gardens to differentiate, because some pesticide use is also common in gardens.

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25 TABLE S1

Population	Selection	clones	$\beta_0$	$B_1$	EC <sub>50</sub> in $\mu\text{g/l}$ (95% CI)
OM 2	Original	3	-8.37	8.45	9.8 (8.7-11.0)
OM 2	Control	5	-5.14	5.16	9.9 (8.7-11.4)
OM 2	Carbaryl-selected	6	-8.05	8.18	9.7 (8.8-10.6)
OM 1	Original	4	-7.48	7.72	9.3 (8.4-10.3)
OM 1	Control	5	-8.90	9.34	9.0 (8.2-9.8)
OM 1	Carbaryl-selected	6	-5.44	6.09	7.8 (7.1-8.6)
Uitkerke	Original	6	-6.15	7.18	7.2 (5.6-9.1)
Uitkerke	Control	4	-5.27	6.21	7.0 (6.2-7.9)
Uitkerke	Carbaryl-selected	6	-5.45	6.10	7.8 (7.1-8.6)
Oud-Heverlee	Original	5	-4.81	4.95	9.4 (7.8-11.2)
Oud-Heverlee	Control	4	-6.27	6.88	8.2 (7.5-8.9)
Oud-Heverlee	Carbaryl-selected	5	-8.13	7.87	10.8 (9.8-11.8)
Tersaart	Original	6	-7.44	7.38	10.2 (9.5-11.0)
Tersaart	Control	4	-7.38	7.51	9.6 (8.7-10.6)
Tersaart	Carbaryl-selected	6	-6.40	6.42	10.0 (9.0-11.1)
Blankaart	Original	6	-6.04	5.99	10.2 (8.8-11.8)
Blankaart	Control	5	-5.19	5.78	7.9 (6.8-9.1)
Blankaart	Carbaryl-selected	4	-4.50	3.97	13.6 (11.1-17.6)
Moorsel	Original	3	-9.00	8.36	11.9 (10.4-13.7)
Moorsel	Control	4	-6.16	6.45	9.0 (8.1-10.0)
Moorsel	Carbaryl-selected	5	-8.78	8.21	11.7 (9.0-15.6)

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31 TABLE S2

	pH	conductivity ( $\mu\text{S cm}^{-1}$ )	oxygen level ( $\text{mg l}^{-1}$ )	temperature ( $^{\circ}\text{C}$ )
ethanol control	8.28 $\pm$ 0.24	1147 $\pm$ 118.86	9.62 $\pm$ 0.19	19.65 $\pm$ 0.22
ADaM control	8.31 $\pm$ 0.30	1225 $\pm$ 193.26	9.58 $\pm$ 0.17	19.66 $\pm$ 0.21
4 $\mu\text{g l}^{-1}$	8.37 $\pm$ 0.24	1189 $\pm$ 166.84	9.64 $\pm$ 0.18	19.64 $\pm$ 0.20
25.1 $\mu\text{g l}^{-1}$	8.33 $\pm$ 0.15	1122 $\pm$ 49.04	9.66 $\pm$ 0.16	19.43 $\pm$ 0.13

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33 TABLE S3

Effect	Univariate Tests of Significance for EC <sub>50</sub> (48)				
	SS	Degr. of Freedom	MS	F	p
Intercept	13209.43	1	13209.43	1529.22	0.000
population	157.83	6	26.30	3.04	<b>0.008</b>
selection history	60.95	2	30.48	3.52	<b>0.032</b>
population x selection history	141.71	12	11.81	1.37	0.190
Error	1097.03	127	8.64		

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40 TABLE S4

<b>pond</b>	<b>land use coverage</b>	<b>ranking</b>
OM 2	57% pasture, 43% other	1
OM 1	18% gardens, 82% other	2
Uitkerke	10% crop, 90% pasture	3
Oud-Heverlee	20% crop, 80% other	4
Tersaart	25% crop, 75% pasture	5
Blankaart	64% crop, 36% pasture	6
Moorsel	70% crop, 30% other	7

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42 **Conflict of interest**

43 There is no conflict of interest.

44 **Data**

45 Data for this study are available at: to be completed after the manuscript is accepted for publication.

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