Negative cross-resistance between structurally different *Bacillus thuringiensis* toxins may favor resistance management of soybean looper in transgenic Bt cultivars

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**Supplementary information**

**Table S1.** Summary of the susceptibility profile obtained in the diet-surface Cry1Ac bioassays against larvae of a soybean looper a population selected for resistance to Cry1Ac using the Bt toxin on the artificial diet.

| Generation of selection | Slope ± SE | Cry1Ac LC$_{90}$ (95% FL) | $\chi^2$ | $P$ |
|-------------------------|------------|---------------------------|----------|-----|
| 1                       | 2.15 ± 0.19| 215.7 (176.7 - 276.8)     | 4.73     | 0.450 |
| 2                       | 1.82 ± 0.21| 535.0 (288.6 - 1768.1)    | 7.70     | 0.173 |
| 3                       | 2.74 ± 0.32| 1568.4 (1180.3 - 2378.5)  | 1.33     | 0.931 |
| 4                       | 3.20 ± 0.41| 1868.2 (1410.6 - 2711.7)  | 1.21     | 0.943 |
| 5                       | 3.12 ± 0.42| 3003.6 (2276.3 - 4469.0)  | 1.85     | 0.763 |
| 6                       | 2.38 ± 0.27| 4057.9 (2457.5 - 10716.0) | 8.52     | 0.130 |
| 7                       | Nd         | > 2000                    | Nd       | Nd  |

In the column head, LC$_{90}$ is the lethal concentration (ng/cm$^2$) that causes 90% mortality of the population and its 95% fiducial limits, estimated through probit analysis using Polo-Plus. $\chi^2$ is the chi-square statistic with its $P$ value for the goodness-of-fit to the probit model. Nd, not determined due to insufficient concentration-response (i.e., the range toxin concentration tested, up to 2000 ng/cm$^2$, did not cause mortality to estimate the regression line).