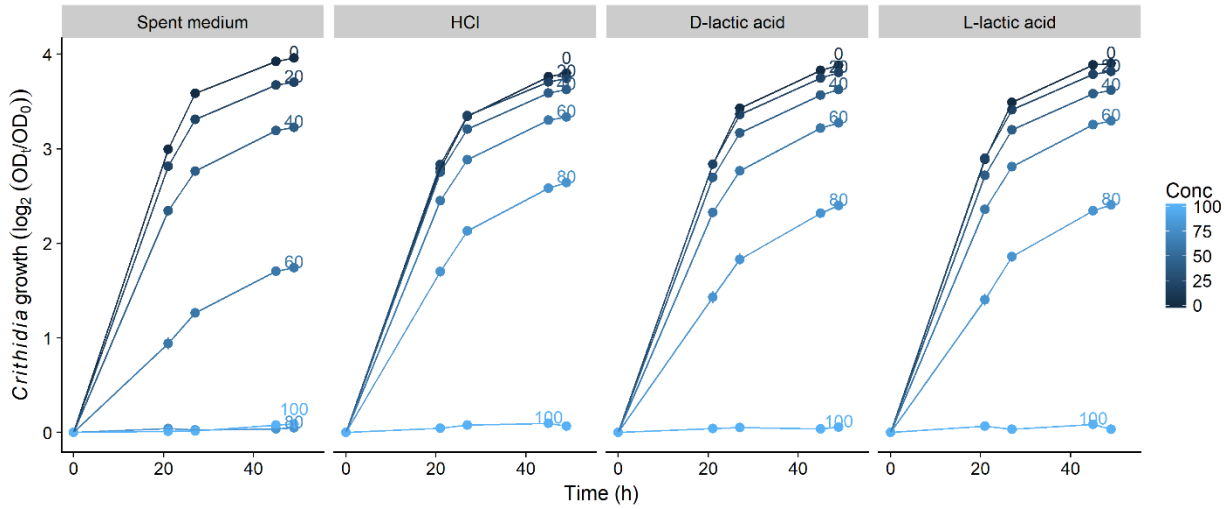
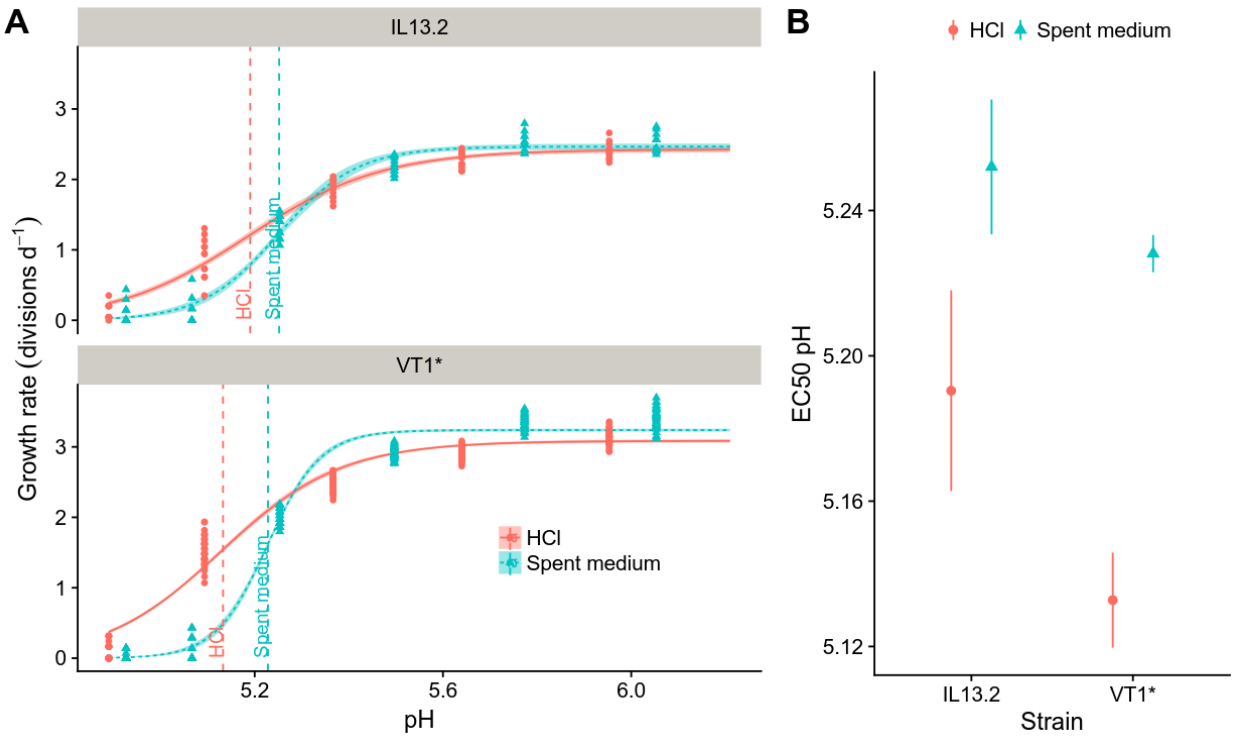
SUPPLEMENTARY INFORMATION

Supplementary Table S1. EC50 values for Acidification and Strain Variation Experiments.

A. Acidification Experiment		
Treatment	EC50 pH	Std. Error
HCl	5.18	0.004595
Spent medium	5.29	0.008261
D-lactic acid	5.22	0.007991
L-lactic acid	5.20	0.007128
B. Strain Variation Experiment		
Strain	EC50 pH	Std. error
IL13.2	5.24	0.00811
S08	5.49	0.00945
VT1	5.34	0.0229
VT1*	5.19	0.00543



Supplementary Figure 1. Growth curves for *C. bombi* (Strain VT1) grown in different dilutions of *L. bombicola* spent medium or acidified MRS medium (initial pH of 4.65 (spent medium), 4.73 (HCl), 4.82 (D-lactic acid), and 4.77 (L-lactic acid)). X-axis shows incubation time. Y-axis shows approximate number of cell divisions, computed as $\log_2$ ratio of optical density (630 nm) to initial optical density (OD = 0.010). Differently labeled and colored lines indicate percentage of acidified medium in MRS fraction. Because MRS medium was combined with equal volumes of fresh FPFB medium, this percentage is twice the final concentration to which cells were exposed. Points and error bars (in most cases not visible, because they are smaller than the points) show mean ± 1 standard error for 12 replicate wells per treatment.



Supplementary Figure 2: In both strains tested, spent medium inhibited *C. bombi* growth at a higher pH than did acidified medium (MRS medium acidified with 1M HCl). (A) Dose-response curves relating pH to growth rate for different *C. bombi* strains (panels) and sources of acidity (lines). X-axis shows pH of treatment medium after combination with equal volume of fresh FPFB medium. Y-axis shows growth rate over the initial 20 h incubation period, in number of doublings per day, based on OD. Lines and shaded bands show fitted means ± SE based on log-logistic model fit. Vertical lines indicate EC50 pH. Points show growth rates for each replicate well. Red lines and circles: spent medium. Blue lines and triangles: acidified medium. **(B) 50% inhibitory concentrations** (EC50) for each strain and source of acidity. Point estimates and 95% confidence intervals are derived from model fits shown in panel **(A).**

Supplementary Data S1 (xlsx). Full model parameters and raw data for Acidification and Strain Variation Experiments. Each experiment (Acidification and Strain Variation) has a sheet for raw data (_data), model summary (_parameters), and 95% confidence intervals for EC50 ratios (_comparisons).