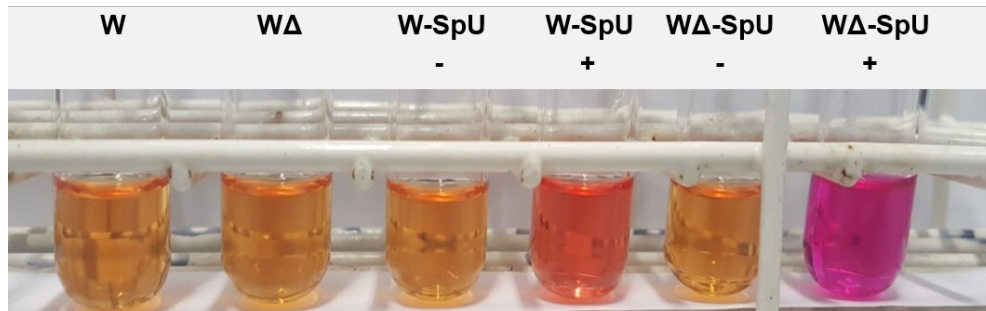




Additional file 1. Heterologous expression of *Sporosarcina pasteurii* urease in *Bacillus subtilis*. Strains of *B. subtilis* W168 (W) or a derived *ureABC-deletion* strain (WΔ) were transformed with a xylose-inducible plasmid containing the *S. pasteurii* urease gene cluster (SpU). Rapid urease test broth with or without addition of 0.2% xylose (+, -) to induce urease gene expression were inoculated with cells taken from growth on solid media and incubated at 37°C for 2 days. Urease activity is observed as a yellow-to-pink colour change of the medium resulting from a pH increase due to the release of ammonia from urea.