

**Table 2. Model variables**

Parameter	Name	Typical value
$x_{\max}$	$x$ size of the field	800 $\mu\text{m}$
$y_{\max}$	$y$ size of the field	400 $\mu\text{m}$
$N$	No. of bacteria	$8 \times 10^4 = \rho \times x_{\max} \times y_{\max}$
$dx$	$x$ discretization step	<0.3 $\mu\text{m}$
$dy$	$y$ discretization step	<0.3 $\mu\text{m}$
$h$	Time step	3 sec
$t_{\max}$	Time length of the process	$2 \times 10^4$ sec