

Cowtastrophe narratives summary

Click "Let's play", then click "Start". Specify control options then click Next or Fast Forward to run through the outbreak.

To view the control zones for vaccination/movement restriction: select "Vaccinate: Vaccinating on suspicion" and choose a radius e.g. 20. Hovering over the inputted "20" should reveal the control zones on the map surrounding each suspected farm. (This is not possible for vaccination on confirmation below as it is combined with culling on confirmation so that confirmed farms are culled before they are visible on the map.) The same feature is available for movement restrictions.

CONTROL MEASURES	EXPECTED OUTCOME
1. Introduction	
No controls	All 400 farms become infected. Total cost approximately C1\$43k but there are also ongoing costs of C1\$88k/year after every farm has become infected.
<i>No control leads to an expensive outbreak. We should try to control the spread, and a basic approach is culling on confirmation...</i>	
Culling: Culling on confirmation	Typically 300-400 farms are culled, with the remaining farms staying uninfected. NB very occasionally this strategy does control the disease well, with most farms escaping infection. If this happens then we should consider ourselves lucky!
<i>Some success with control but not a great outcome. Now try either Vaccination (2a) or Movement restriction (2b)...</i>	
2a. Vaccination	
<i>Vaccinate in zones around either confirmed farms or suspected farms...</i>	
Culling: Culling on confirmation AND Vaccinate: Vaccinating on confirmation, with radius 20 entered in the box on the right	Typically few farms will remain uninfected. Most farms will be culled or vaccinated (roughly equal proportions). NB the outcome can vary considerably!
Culling: Culling on confirmation AND Vaccinate: Vaccinating on suspicion, with radius 20 entered in the box on the right	Typically 100-200 farms remain uninfected and a small proportion of farms are culled. NB the outcome can vary considerably!
<i>Vaccination on suspicion controls more effectively for a given radius. Generally we can expect that implementing control measures earlier in the outbreak will lead to a better outcome.</i>	
2b. Movement restriction	
Culling: Culling on confirmation AND Restrict movement: restrict movement around confirmed farms only, with radius 300 entered in the box on the right	Most farms escape infection but a small proportion are culled.
<i>Large radius 'blanket' movement restriction effectively controls spread, but can we still achieve this with a smaller radius?</i>	
Culling: Culling on confirmation AND Restrict movement: restrict movement around confirmed farms only, with radius 20 entered in the box on the right	Roughly half of farms are culled, with the other half escaping infection. NB this outcome can vary somewhat.
<i>The smaller radius reduces effectiveness but it's still much better than Culling on confirmation alone.</i>	