

VIRBA-SAN'S POWER IN ACTION


DISINFECT

Horticulture

Virba-San, Roam Technology's sustainable and highly reactive surface disinfectant is an indispensable link in a good biosecurity protocol. In this case study, its efficacy against a range of plant pathogens was shown in collaboration with independent research centres.

THE CHALLENGE

The primary objective for any grower is to produce the highest quality fruits and vegetables. Alongside optimising fertilisation, ensuring a pathogen-free environment through robust biosecurity measures is critical to achieving this goal. A key component of an effective biosecurity protocol is comprehensive surface disinfection using a registered and proven biocidal product.

OUR SOLUTION

To demonstrate the effectiveness of our surface disinfectant **Virba-San**, we conducted tests against various pathogens in the lab.

Lab tests against bacteria and fungi

At a renowned research institute, **Virba-San** was assayed against a range of pathogens specific and impactful to the horticultural sector. The design and results are shown in figure 1 and table 1.

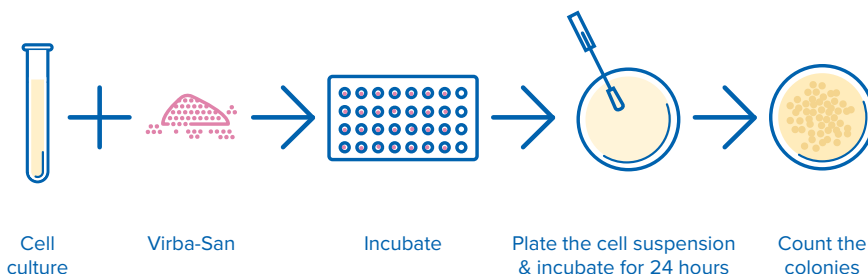


Figure 1: Test design for the bacterial and fungal efficacy tests.



THE BENEFITS

- » Low concentration and contact time
- » Effective against a wide range of pathogens
- » Performance supported by independent labs

RECOMMENDED PRODUCT



Proven efficacy against bacteria, viruses and fungi



High reactivity, fast action



Widely applicable



Powerful surface disinfection

Organism	Concentration & contact time	Reduction (%)
<i>Clavibacter michiganensis</i>	0.5% - 15 min	99.999999%
<i>Agrobacterium rhizogenes</i> (catalase negative)	0.5% - 15 min	99.999999%
<i>Agrobacterium rhizogenes</i> (catalase positive)	0.5% - 15 min	99.999999%
<i>Fusarium oxysporum</i>	1% - 15 min	99.999%
<i>Botrytis cinerea</i>	1% - 15 min	99.99%
<i>Pythium aphanidermatum</i>	1% - 15 min	99%

Table 1: Concentrations and contact times used per organism, and the result of the test.

More than 99% of the cells of every tested microorganism were killed by the tested Virba-San concentrations.

Lab test against ToBRFV

The same renowned research centre also performed tests with **Virba-San** against ToBRFV. Table 2 summarises the protocol and the results.

Application	Concentration & contact time	Analysis technique	Result	
Disinfection of ToBRFV infected water	1% - 1 min	Disinfection of ToBRFV infected water	Positive control	Intact virus detected
			Virba-San treatment	No intact virus detected
Disinfection of a ToBRFV infected surface (inox)	2% - 10 min	PCR to differentiate between active and inactive virus.	Positive control	Intact virus detected
			Virba-San treatment	No intact virus detected

No active virus particles were detected after Virba-San treatment.

CONCLUSION

Independent research centres have confirmed that **Virba-San** is the ideal surface disinfectant for a well-designed biosecurity protocol. **Virba-San** eliminated over 99% of tested bacteria (including *Clavibacter* and both catalase-positive and negative *Agrobacterium rhizogenes*) and fungi (such as *Fusarium oxysporum*, *Botrytis cinerea*, and *Pythium aphanidermatum*), and left no ToBRFV particles intact. Want to eliminate harmful plant pathogens that threaten your greenhouse's profitability? Choose **Virba-San** for effective surface disinfection!

Virba-San is a biocide and subject to certain laws and regulations per country. As a result, in some countries, our full range isn't available. Please contact us for more information on our registrations. Use biocides safely. Read the label carefully before usage.

