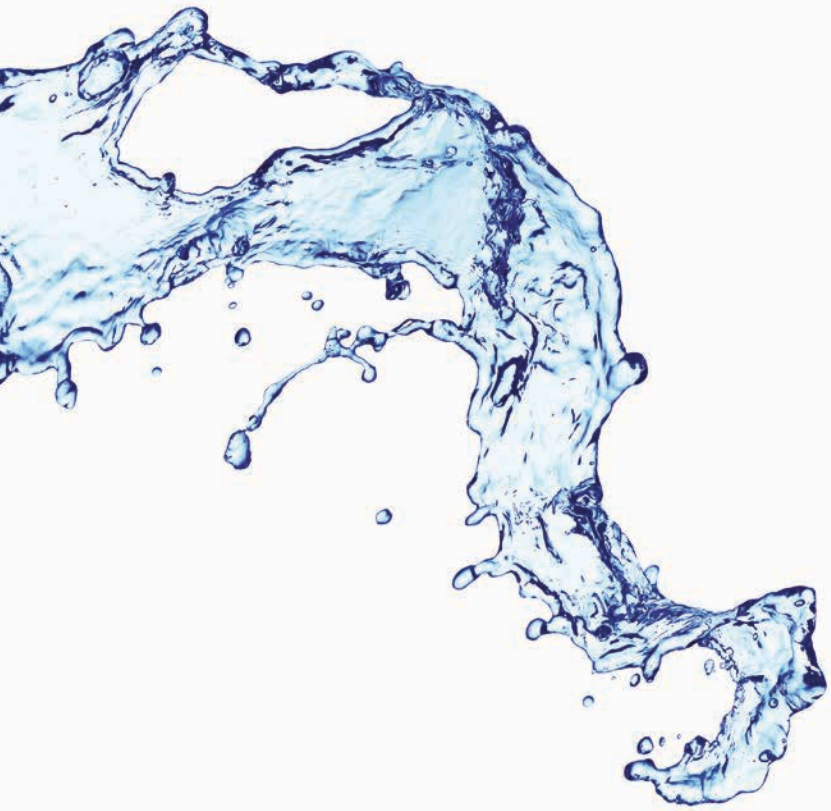


germains®
seed technology

We Maximize Nature's Potential®

gopure®

Clean seed, pure & simple.

For spinach and carrot

gopure® Clean seed, pure & simple.

Yield is a primary focus when developing seed technologies. However, without clean and healthy seed, potential yield increases may be compromised. Seed-borne diseases are a serious issue that costs both the seed industry and vegetable growers a significant amount of money each year.

Gopure® is a conventional seed treatment that uses a combination of processes and/or crop protection products that inhibit the growth of seed-borne pathogens, such as ***Verticillium***, ***Stemphylium***, ***Cladosporium***, ***Alternaria***, and ***Xanthomonas***. Customizable to meet your field challenge, stack **gopure** with conventional fungicides for added protection from soil-borne pathogens such as ***Pythium***, ***Rhizoctonia***, and ***Fusarium***.

Gopure is approved for use in the United States, Mexico and Canada.

Key Benefits

- Reduces pathogens to nearly undetectable levels post-treatment
- Improves seed and seedling health, helping to optimize yield
- Protects future crop rotations by reducing the transfer of pathogenic organisms into the field
- Causes little to no impact on germination or shelf life

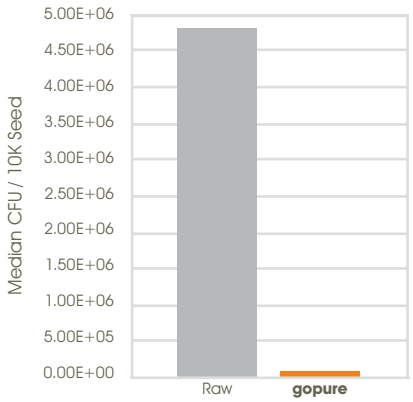
Carrot Overview

Bacterial leaf blight, otherwise known as ***Xanthomonas campestris pv. carotae***, is a concern to carrot seed producers and growers in many regions of the world. The bacterium can survive on or in a carrot seed, spreading via the seed's movement through the supply chain into the field. Planting healthy, clean seed is an essential first step for effectively managing bacterial leaf blight.

Third-Party Trial Data

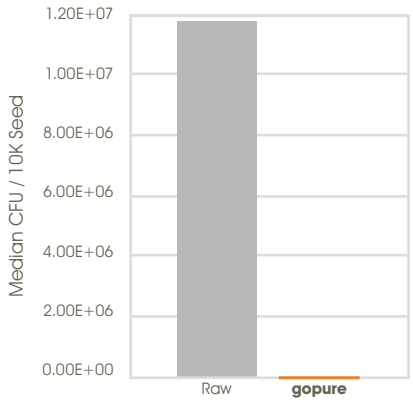
Tested on five carrot varieties, independent lab results conclude **gopure** is an effective solution for removing ***Xanthomonas*** from carrot seed without impacting germination or shelf life.

Xanthomas **Disinfection**
by Run (N=34)



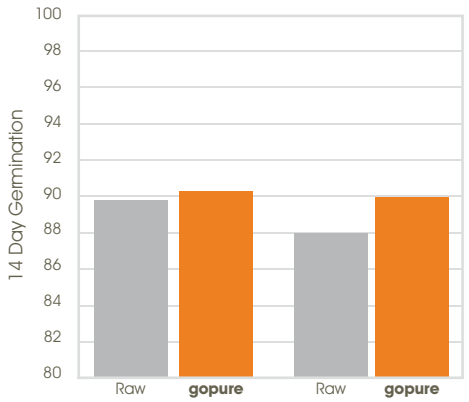
Average of 5 Lots

Xanthomas **Disinfection**
by Variety (N=5)



Average of 5 Lots

Shelf Life (Germination)
12 months post treatment



Average of 5 Lots

Raw gopure

Shelf life longevity may vary due to incoming raw seed quality.
Always test carry over seed every six months post-treatment before field planting.

Spinach Overview

Seed-borne fungal pathogens severely impact the fresh spinach market by causing foliar symptoms. Dense planting, poor air circulation, and low plant fertility increase the severity of these diseases. ***Cladosporium***, ***Stemphyllium***, and ***Anthracnose*** thrive under wet growing conditions. Germains has treated numerous cultivars from various breeder producers. Clean, healthy seeds are available for spinach growers with proven efficacy at removing these seed-borne pathogens without impacting the seed's health.

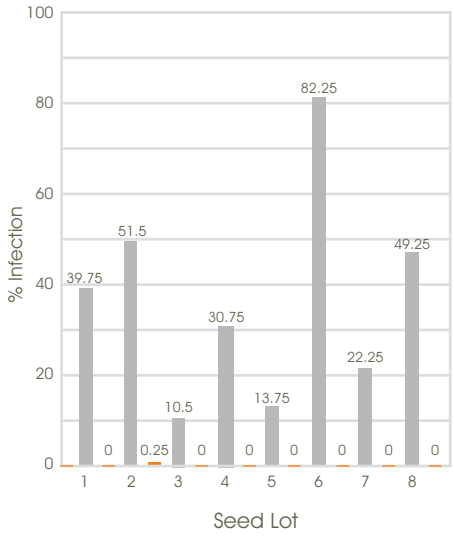
Why take a chance with pathogen-ridden seeds? Start with clean, healthy seeds. With the added benefits of Rancona® and **gopure**, the combination provides beneficial crop protection from soil-borne pathogens like ***Fusarium***, ***Pythium***, and ***Rhizoctonia***. A thriving, healthy spinach crop starts with **gopure**.

Third-Party Trial Data

Tested on several varieties with various infection rates, independent labs conclude that **gopure** effectively removes seed-borne diseases without impacting germination or shelf life up to 12 months post-treatment.

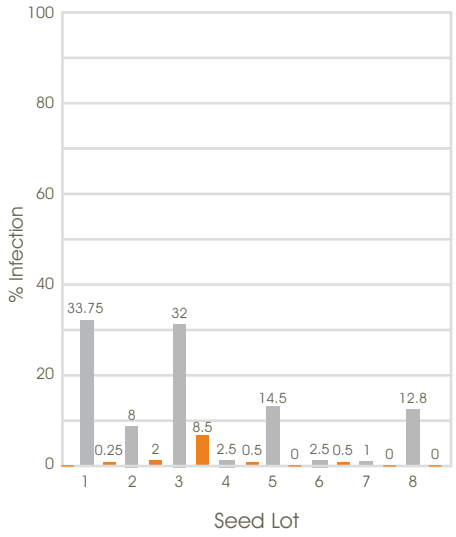
Verticillium spp.

Infection Rate



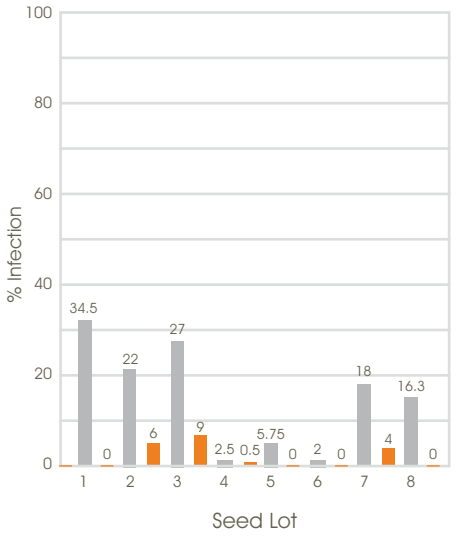
Stemphylium botryosum

Infection Rate



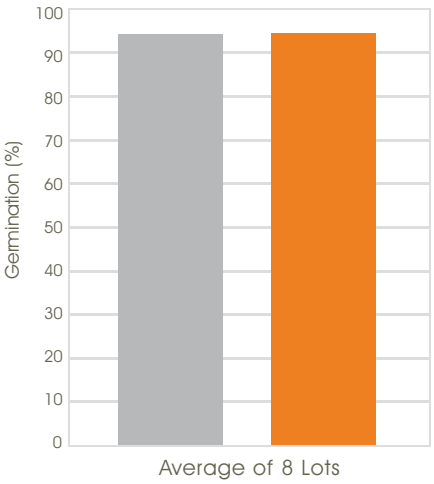
Alternaria spp.

Infection Rate



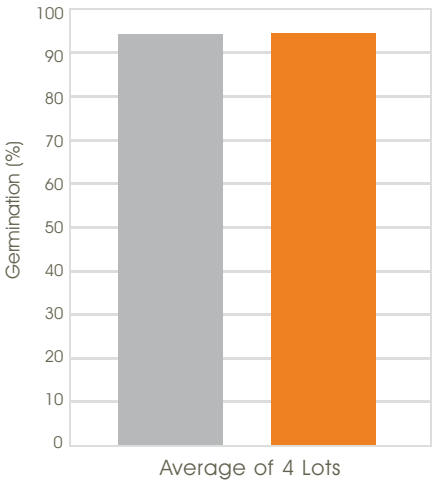
Germination

(Independent Lab)

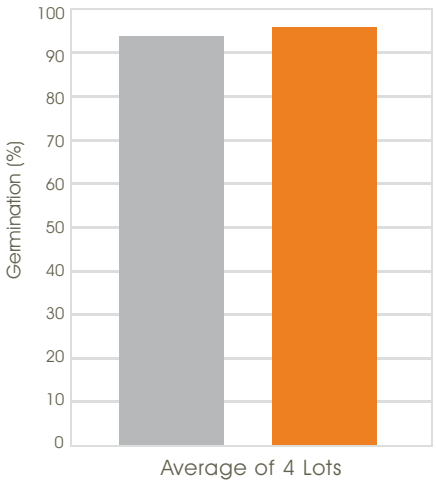


Shelf Life (Germination)

Post treatment



12 months post treatment



No significant difference in the final germination between treatments ($\alpha = 0.05$).

Raw **gopure**

Shelf life longevity may vary due to incoming raw seed quality.
Always test carry over seed every six months post-treatment before field planting.

Do you need another solution?

Ask about our latest Prime, Pellet, Filmcoat and Health developments for organic and conventional seeds

Contact us

Germains Seed Technology
8333 Swanston Lane
Gilroy, CA 95020
T: 408-848-8120 F: 408-848-2124
Email: nasales@germains.com

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