

MustGrow Biologics Announces Positive Carnation Trials with Gowan

- Work completed under non-exclusive agreement with *Gowan Group*'s biological division *Ecoflora Agro* in Colombia.
- MustGrow and Gowan reported control of *Fusarium* disease in carnation flower soil utilizing MustGrow's mustard-derived biopesticide.
- Soil treated with MustGrow's product showed resilient carnation yield and health, suggesting systemic protection.
- MustGrow's treatment outperformed the grower standard of steam sterilization.

SASKATOON, Saskatchewan, Canada, July 12, 2021 – **MustGrow Biologics Corp. (CSE: MGRO) (OTC: MGROF) (FRA: 0C0)** (“**MustGrow**”) is pleased to announce positive results from its non-exclusive floriculture trials (the “**Carnation Trials**”) in Colombia with [Gowan Group](#) (“**Gowan**”), a global, private family-owned agriculture solutions business specializing in developing, marketing, and manufacturing global agriculture inputs such as crop protection products, seeds and fertilizers.

Gowan trialed MustGrow's patented mustard-derived biopesticide on *Fusarium oxysporum f. sp. dianthi* (“**Fusarium**”). MustGrow's treatment outperformed both the grower standard of steam sterilization and the untreated check, controlling *Fusarium* in soil used to grow carnation flowers at economic application rates. MustGrow and Gowan are now conducting additional work to further evaluate the application potential of MustGrow's biopesticide product in Colombian floriculture markets.

MustGrow's remarkably safe and effective organic biopesticide is plant-based – harnessing the mustard seed's natural defense mechanism to control diseases, insect pests and weeds.

The Carnation Trials were conducted in soil and vegetal material from two leading carnation growers in the most important producing region in Cundinamarca, Colombia, through Gowan's biological division [Ecoflora Agro](#). MustGrow's mustard-derived liquid biopesticide, TerraMG, was assessed pre- and post-treatment versus *Steam Sterilized Soil* to evaluate efficacy in the control of *Fusarium* on carnation plants through bioassay. Carnation damage caused by *Fusarium* was also evaluated in the plants and roots via the following parameters:

- **Growth Parameters:** Foliage state, root extension in the soil, plant and root size.
- **Disease Presence:** *Fusarium* and other pathogens, foliage and stem affectation scale, root damage, *Fusarium* symptoms scale.

Evaluation Highlights:

- MustGrow's biopesticide was applied at a rate of 5 gal/acre (47 L/Ha).
- In MustGrow-treated soil, *Fusarium* population decreased 99.75% from approximately 40,000 CFU*/g to less than 100 CFU/g (versus steam sterilization treatment which showed a decrease from approximately 40,000 CFU/g to 900 CFU/g).
- At the conclusion of the bioassay, MustGrow-treated plants only showed a 10% incidence of *Fusarium* (versus 40% in steam sterilization treatment).
- In the presence of *Fusarium*, MustGrow-treated plants remained healthy, physically unaffected, and externally symptom-free throughout observation, suggesting systemic protection.
- **Conclusion:** MustGrow's mustard-derived biopesticide treatment (TerraMG) outperformed the grower standard of steam sterilization and the untreated check.

* Colony-forming units (CFU): a measure of viable fungal cells in a sample.

Of all flowers sold in the U.S., **80%** are imported, primarily from South American industrial flower farms that have a history of using harsh chemicals and toxic pesticides⁽¹⁾. MustGrow's crop protection technology has consistently demonstrated efficacious benefits similar to chemistry-based "synthetic chemical" products without the harmful safety profile often associated with some synthetic chemical products. The development of safe and effective biopesticides will be critical for future food security and environmentally sustainable floriculture.

Global Floriculture⁽¹⁾

The worldwide market for flower and ornamentals (those that are grown for the primary purpose of being sold as cut flowers, houseplants and in landscape design) is expected to grow roughly 6.3% per year over the next five years, reaching US\$57.4 billion by 2024, up from US\$42.4 billion in 2019. Colombia is the world's largest producer of *carnations* and the second largest global producer of *all cut flowers* (behind the Netherlands) representing US\$1.4 billion in export sales.

Source:

- 1) <https://www.petalrepublic.com/floristry-and-floriculture-statistics/>

About MustGrow

MustGrow is a publicly traded (CSE: MGRO) (OTC: MGROF) (FRA: 0C0) agriculture biotech company focused on providing natural science-based biological solutions for high value crops, including fruits & vegetables and other industries. MustGrow has designed and owns a U.S. EPA-approved natural solution that uses the mustard seed's natural defence mechanism to protect plants from pests and diseases. Over 110 independent tests have been completed, validating MustGrow's safe and effective signature products. The product, in granule format, is EPA-approved across all key U.S. states and by Health Canada's PMRA (Pest Management Regulatory Agency) as a biopesticide for high value crops such as in fruit & vegetables. MustGrow has now concentrated a mustard extract biopesticide in liquid format, TerraMG, and with regulatory approval, could be applied through standard drip or spray equipment, improving functionality and performance features. In addition, the Company's mustard-derived extract technologies could have other applications in several different industries from pre-plant soil treatment, to weed control, to post harvest disease control and food preservation.

The Company has approximately 42.8 million basic common shares issued and outstanding and 50.6 million shares fully diluted. For further details please visit www.mustgrow.ca.

ON BEHALF OF THE BOARD

"Corey Giasson"

Director & CEO

Phone: +1-306-668-2652

info@mustgrow.ca

Forward-Looking Statements



Certain statements included in this press release constitute "forward-looking statements" which involve known and unknown risks, uncertainties and other factors that may affect the results, performance or achievements of MustGrow.

Generally, forward-looking information can be identified by the use of forward-looking terminology such as "plans", "expects", "is expected", "budget", "estimates", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might", "occur" or "be achieved".

Forward-looking statements are subject to a number of risks and uncertainties that may cause the actual results of MustGrow to differ materially from those discussed in such forward-looking statements, and even if such actual results are realized or substantially realized, there can be no assurance that they will have the expected consequences to, or effects on, MustGrow.

These risks are described in more detail in MustGrow's Prospectus and other continuous disclosure documents filed by MustGrow with the applicable securities regulatory authorities and available at www.sedar.com. Readers are referred to such documents for more detailed information about MustGrow, which is subject to the qualifications, assumptions and notes set forth therein.

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