

## MustGrow Announces Collaborative Tobacco “Crop Protection” Program Funded by Canadian Tobacco Research Foundation

Saskatoon, SK, June 3, 2020 – **MustGrow Biologics Corp. (CSE: MGRO) (OTC: MGROF)** (the "**Company**", "**MustGrow**"), an agricultural biotech company developing and commercializing a portfolio of natural, science-based biological crop protection products, is pleased to announce the commencement of a tobacco crop protection research program funded by the Canadian Tobacco Research Foundation to target tobacco cyst nematodes and root-lesion nematodes (“**Nematodes**”).

Nematodes are parasitic worms that infect a tobacco plant’s root system which reduces water and nutrients movement into the plant, resulting in immature plants and lower yields. Yield-destruction from Nematodes has been reported from eleven tobacco-producing countries on four continents, including the United States and Canada<sup>(1)</sup>. Despite extensive synthetic chemical pesticide use to combat this parasite, Nematodes continue to cause damage to global tobacco farming, a global industry size estimated at US\$28 billion (US\$1.1 billion in the United States)<sup>(2)</sup>. The global tobacco crop loss from Nematode damage is estimated at US\$4.2 billion, or 15%<sup>(3)</sup>, resulting in an estimated loss in infected fields of US\$1,000 per acre<sup>(4)</sup>. Several of these harmful synthetic chemicals are being banned or deregistered, leaving tobacco farmers with limited viable crop protection options.

A collaborative research program is now underway with the Canadian Tobacco Research Foundation (CTRF) to build on MustGrow’s encouraging scientific achievements outlined below and to advance corporate collaboration discussions with tobacco industry leaders. The inclusion of Altria Group veteran Brian Quigley on MustGrow’s board of directors, illustrates MustGrow’s conviction in this opportunity.

The CTRF is evaluating MustGrow as both pre-planting and post-planting applications. The study will target tobacco cyst nematodes after hatching which is stimulated by exudates (secreted fluid) that are only present when tobacco is planted. The post-planting application will be applied by banding with immediate soil incorporation.

Based on third party studies, MustGrow’s patented mustard-derived bio-pesticide has demonstrated 100% control of soil-borne diseases and pathogens including *Fusarium*, *Botrytis*, *Rhizoctonia*, *Pythium*, *Verticillium*, *Phytophthora*, *Sclerotinia*, and *Nematodes*. Previous studies have largely tested MustGrow’s ‘granular’ format bio-pesticide and is now advancing the same mustard-derived active ingredient in ‘liquid’ format. Study results and applicability are patent-protected under MustGrow’s existing suite of issued patents. The need for bio-pesticides is increasing as farmers, consumers and regulators seek ‘natural biological’ alternatives to synthetic chemical pesticides.

### **Background: Nematodes and Tobacco<sup>(1)</sup>**

In 2009, the U.S. Environmental Protection Agency (EPA) cancelled registration of Temik 15G for tobacco Nematode control. Additionally, registrations for the most commonly used soil fumigants (Telone C-17, Chloropicrin, and Pic+) were amended in 2011 to include very significant additional regulations that make soil fumigation much more difficult for all tobacco producers, and extremely difficult for some. Consequently, the tobacco industry is in significant need of alternatives to traditional nematicides and soil fumigants. One form of Nematode known as *G. t. solanacearum* (“**Gts Nematodes**”) has consistently been among the most damaging disease problems of flue-cured tobacco in Virginia, reducing state-wide tobacco production by an estimated 2% each year.



In 2010, MustGrow and *Virginia Tech's* Southern Piedmont Agricultural Research and Extension Center, conducted a series of safety and efficacy assessments of MustGrow's granular bio-pesticide as a pre-plant soil treatment. The field study compared Gts Nematode reproduction on, and growth and productivity of, flue-cured tobacco in soil treated with MustGrow's granular mustard meal to that treated with standard nematicides. Observations included significantly lower Gts Nematode densities for all rates of MustGrow's natural granular mustard product above 500 lb/acre.

Sources: (1) Virginia Tech - Virginia Polytechnic Institute and State University; (2) World Bank, Statistica; (3) Plant Nematode Interactions. Chapter 22: Tobacco; (4) College of Agricultural & Environmental Sciences University of Georgia.

### **About Canadian Tobacco Research Foundation**

The Canadian Tobacco Research Foundation (CTRF) conducts applied research on tobacco production, including research in plant breeding, agronomy, plant protection, curing and storage. As a result of CTRF's research efforts, almost all of the flue-cured tobacco varieties grown currently in Canada were developed through the CTRF's breeding program. Good leaf quality, high yield and disease resistance are key traits of the varieties being developed and grown today.

Several of the newer registered pesticides now being used on tobacco were tested by the CTRF for efficacy, as well as for their effects on agronomic performance. The results from this work have assisted in the registration and usage of these products on tobacco. Many of the cultural practices, as well as some of the newer technologies, in use today by growers have also resulted from work undertaken by the CTRF.

The primary objective of the agronomy research is to improve tobacco production practices. Areas of importance include soil and fertility management, crop rotation and management, and cultural practices used in greenhouse and field production. In the area of plant protection, field research trials are conducted on the control of diseases and pests affecting tobacco production in Canada. These trials are used to gather data which are used for the registration of new disease and pest control products or to identify improved cultural procedures and practices for their control.

### **About MustGrow**

MustGrow is a publicly traded (**CSE: MGRO**) (**OTC: MGROF**) agriculture biotech company focused on providing natural science-based biological solutions for high value crops, including fruits & vegetables. MustGrow has designed and owns a United States EPA-approved organic 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 as a bio-pesticide and is designated by Health Canada's PMRA (Pest Management Regulatory Agency) as a fruit & vegetable bio-pesticide. MustGrow has now concentrated a liquid format that with regulatory approval, could be applied through standard drip or spray equipment, improving functionality and performance features.

The Company has approximately 37 million basic common shares issued and outstanding. For further details please visit [www.mustgrow.ca](http://www.mustgrow.ca).

### **ON BEHALF OF THE BOARD**

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### **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](http://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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