Court File No.:

ONTARIO SUPERIOR COURT OF JUSTICE

Electronically issued Délivré par voie électronique : 06-Aug-2021 Toronto

ROBIN DUNHAM

Plaintiff

- and –

SYNGENTA AG, SYNGENTA CROP PROTECTION LLC, SYNGENTA CANADA INC., and SYNGENTA INTERNATIONAL AG

Defendants

Proceeding under the Class Proceedings Act, 1992

STATEMENT OF CLAIM

TO THE DEFENDANTS

A LEGAL PROCEEDING HAS BEEN COMMENCED AGAINST YOU by the plaintiff. The claim made against you is set out in the following pages.

IF YOU WISH TO DEFEND THIS PROCEEDING, you or an Ontario lawyer acting for you must prepare a statement of defence in Form 18A prescribed by the Rules of Civil Procedure, serve it on the plaintiff's lawyer or, where the plaintiff does not have a lawyer, serve it on the plaintiff, and file it, with proof of service, in this court office, WITHIN TWENTY DAYS after this statement of claim is served on you, if you are served in Ontario.

If you are served in another province or territory of Canada or in the United States of America, the period for serving and filing your statement of defence is forty days. If you are served outside Canada and the United States of America, the period is sixty days.

Instead of serving and filing a statement of defence, you may serve and file a notice of intent to defend in Form 18B prescribed by the Rules of Civil Procedure. This will entitle you to ten more days within which to serve and file your statement of defence.

IF YOU FAIL TO DEFEND THIS PROCEEDING, JUDGMENT MAY BE GIVEN AGAINST YOU IN YOUR ABSENCE AND WITHOUT FURTHER NOTICE TO YOU. IF YOU WISH TO DEFEND THIS PROCEEDING BUT ARE UNABLE TO PAY LEGAL FEES, LEGAL AID MAY BE AVAILABLE TO YOU BY CONTACTING A LOCAL LEGAL AID OFFICE.



TAKE NOTICE: THIS ACTION WILL AUTOMATICALLY BE DISMISSED if it has not been set down for trial or terminated by any means within five years after the action was commenced unless otherwise ordered by the court.

Date August 6, 2021

Issued by

Local registrar

Address of 330 University Ave., Toronto, court office Ontario

- TO: SYNGENTA AG Schwarzwaldallee 215, 4058 Basel, Switzerland
- AND TO: SYNGENTA CROP PROTECTION LLC 410 Swing Road Greensboro, North Carolina 27409 United States of America
- AND TO: SYNGENTA CANADA INC 140 Research Lane, Research Park Guelph, Ontario N1G 4Z3
- AND TO: SYNGENTA INTERNATIONAL AG Schwarzwaldallee 215, 4058 Basel, Switzerland

DEFINITIONS

1. In this Statement of Claim, in addition to the terms that are defined elsewhere herein, the following definitions apply:

- (a) *"Act"* means *Pest Control Products Act*, SC 2002, c 28, as amended;
- (b) "*CBCA*" means the *Canada Business Corporations Act*, RSC 1985, c C-44, as amended;
- (c) "*Courts of Justice Act*" means the *Courts of Justice Act*, RSO 1990, c C-43, as amended;
- (d) "Class" and "Class Members" means any individual in Canada (excluding Québec) who has been diagnosed with Parkinson's disease after using and/or being exposed to Gramoxone at any time during the Relevant Period;
- (e) "Defendants" means, together, Syngenta AG, Syngenta Crop Protection LLC,Syngenta Canada Inc., and Syngenta International AG;
- (f) **"Family Class Members**" means individuals in Canada who are the living spouse, child, grandchild, parent, grandparent, or sibling of a Class Member;
- (g) *"Family Law Act*" means the *Family Law Act*, RSO 1990, c F.3, as amended;
- (h) "Gramoxone Products" means Gramoxone and includes its active ingredient, paraquat;
- (i) "MSDS" means Materials Safety Data Sheets;

- (j) *"Negligence Act*" means the *Negligence Act*, RSO 1990, c. N.1, as amended;
- (k) "NIOSH" means the United States National Institute for Occupational Safety and Health;
- (1) "**Plaintiff**" means Robin Dunham;
- (m) "PMRA" means Health Canada's Pest Management Regulatory Agency; and
- (n) "**Relevant Period**" means the period after July 1, 1963.

CLAIM

- 2. The Plaintiff claims on behalf of himself and others similarly situated in Canada:
 - (a) an Order certifying this proceeding as a class proceeding and appointing him as
 Representative Plaintiff for the Class Members;
 - (b) a declaration that the Defendants committed battery against the Class Members;
 - (c) a declaration that the Defendants breached their duty of care to the Class Members;
 - (d) a declaration that the Defendants were negligent in the research, development,
 design, manufacture, testing, distribution, sale and marketing of Gramoxone
 Products;
 - (e) a declaration that the Defendants were negligent in their failure to warn
 Gramoxone users and the public of the health risks associated with exposure to
 Gramoxone Products;
 - (f) a declaration that the Defendants are vicariously liable for the acts and omissions of their officers, directors, agents, employees, and representatives;
 - (g) a declaration that the Defendants have been unjustly enriched;
 - (h) restitution;
 - (i) non-pecuniary damages in an amount of \$500,000,000;
 - (j) pecuniary and special damages in an amount to be determined;

(k)	damages pursuant to the Family Law Act and similar legislation and common law
	in other provinces, where applicable, in an amount to be determined;
(1)	punitive, aggravated, and exemplary damages in the amount of \$10,000,000;
(m)	an accounting for and disgorgement of profits or revenues;
(n)	the costs of distributing all monies received to class members;
(0)	prejudgment and postjudgment interest;
(p)	costs on a substantial indemnity basis, plus applicable taxes; and

(q) such further and other relief as this Honourable Court may deem just.

NATURE OF THE ACTION

3. This proposed class proceeding involves paraquat,¹ a toxic chemical widely used as an herbicide, primarily for weed and grass control. Paraquat was commercially available for use in Canada beginning in 1963. The Defendants and their corporate predecessors sold paraquat in Canada under the brand name Gramoxone since 1963.

4. Throughout the Relevant Period, Gramoxone was typically sold as a liquid concentrate or granular solid designed to be diluted with water and applied to target weeds. Application generally took place by way of a backpack sprayer, hand-held sprayer, aircraft (*i.e.*, crop-duster), truck with attached pressurized tank, or tractor-drawn pressurized tank.

¹ Unless the context indicates otherwise, references in this Statement of Claim to "paraquat" include the chemical compound paraquat dichloride.

5. Preparing and applying Gramoxone resulted in exposure to the user and persons nearby. Persons in areas where Gramoxone had recently been sprayed were also exposed. When an individual is exposed to Gramoxone, its active ingredient paraquat can enter the human body through nasal passages, absorption, respiration, and/or ingestion. Once Gramoxone and its active ingredient paraquat have penetrated the human body, paraquat can enter the bloodstream, where it can be carried to the brain.

6. There is a clear link between use and/or exposure to Gramoxone Products and Parkinson's disease, an incurable nervous system disorder. The Defendants breached their duties by misrepresenting the safety of Gramoxone Products and failed to adequately, sufficiently, and timely warn Class Members of the risks associated with the use and/or exposure to Gramoxone Products. The Plaintiff advances rights of action in negligence, battery, and unjust enrichment.

THE PLAINTIFF

7. The Plaintiff Robin Dunham resides in Penticton, British Columbia.

8. Mr. Dunham began working in the landscaping industry in the 1970s and served as the Grounds Maintenance Foreman at the University of Guelph between 1973 and 1976. While employed at the University of Guelph, Mr. Dunham worked with Gramoxone extensively. During his tenure at the University of Guelph, he clean-up a spilled drum of Gramoxone without any protective equipment.

9. In 1976, Mr. Dunham moved to Penticton, British Columbia, where he worked as a parks foreman for the City, and then operated a landscaping business. Mr. Dunham's business flourished, and was—at one time—among the largest in the Penticton area. For decades, Mr.

Dunham used Gramoxone for almost all of his landscape contracts, sometimes without protective equipment.

10. Mr. Dunham was diagnosed with Parkinson's disease around 2008, at the age of 61. Since that time his disease has advanced, and he has had to give up his business. At all material times, Mr. Dunham did not know the nature and extent of the injuries that could result from the intended and reasonably foreseeable use of and/or exposure to Gramoxone Products.

11. The Plaintiff brings this action on behalf of the Class Members and the Family Class Members.

THE DEFENDANTS

12. Syngenta AG is an international corporation with headquarters in Basel, Switzerland. Syngenta AG is active in the food, agrochemical and biotechnology industries and has numerous research and development centers and production facilities around the world. It holds direct or indirect ownership interests in other companies in the Syngenta group, including Defendants Syngenta International AG, Syngenta Crop Protection LLC and Syngenta Canada Inc. Syngenta AG developed, designed, manufactured, marketed, distributed and sold Gramoxone Products which were and are sold in Canada, including Ontario, through an agreement with Defendant Syngenta Canada Inc.

13. Syngenta International AG is a wholly owned subsidiary of Defendant Syngenta AG, headquartered in Basel, Switzerland. Syngenta International AG managed the development, design, manufacture, distribution, marketing and sale of Gramoxone Products, which were and are sold in Canada, including Ontario.

14. Syngenta Crop Protection LLC is a wholly owned subsidiary of Defendant Syngenta AG, organized and existing under the laws of Delaware, USA, with its principal place of business in Greensboro, North Carolina. Syngenta Crop Protection LLC was involved in the development, design, manufacture, distribution, marketing and sale of Gramoxone Products, which were and are sold in Canada, including Ontario.

15. Syngenta Canada Inc. is an indirectly owned subsidiary of the Defendant Syngenta AG incorporated under the *CBCA* with its head office in Guelph, Ontario. The function of Syngenta Canada Inc. within the organizational structure of the Syngenta entities is sales and research. Syngenta Canada Inc. developed, designed, distributed, marketed and sold Gramoxone Products which were and are sold in Ontario under an agreement with the Defendant Syngenta AG, for the benefit of the latter.

16. At all times relevant to this case, the Defendants' businesses were related, and they were each involved in the design, manufacture, development, preparation, processing, inspection, testing, packaging, promotion the marketing, distribution, labeling and/or sale, directly or indirectly, through an agent, subsidiary, affiliate, representative or predecessor, of Gramoxone Products or other herbicides containing the active ingredient, paraquat, in Ontario.

17. The business of each of the Defendants is inextricably interwoven with that of the other for the purposes of the manufacture, marketing, sale and/or distribution of Gramoxone Products in Ontario. In view of the close relationship between the Defendants and the foregoing, each of the Defendants is jointly and severally liable for the acts and omissions of the other.

THE FACTS

18. Paraquat is a toxic chemical that is widely used as an herbicide, primarily to control weeds and grasses. It is the most acutely toxic herbicide to have been commercialized in the last 60 years. The properties of paraquat as an herbicide were discovered in 1955 by Imperial Chemical Industries Ltd, ultimately known as Imperial Chemical Industries PLC ("ICI"), a predecessor company of the Defendant Syngenta AG. In 1962, ICI produced the first commercial formulation of paraquat and registered it for use in England. Around the same time, it was introduced to other markets under the brand name Gramoxone, eventually becoming one of the most widely used herbicides in the world.

19. Gramoxone has been available in Canada since on or around July 1, 1963. It was commonly used by farmers several times a year on the same land, particularly for weed control in orchards or on farms where several crops were planted on the same land in a single growing season or year. As noted above, Gramoxone was typically sold as a liquid concentrate or granular solid designed to be diluted with water and applied as a spray to the target weeds, and it was typically applied by backpack sprayer, hand-held sprayer, aircraft (*i.e.*, crop-duster), truck with attached pressurized tank, or tractor-drawn pressurized tank. Paraquat-containing concentrates were formulated with one or more surfactants to increase the ability of the herbicide to remain in contact with the leaf, and then penetrate its waxy surface and plant cells.

20. At all times relevant to this case, it was reasonably foreseeable that when Gramoxone was used in the manner intended or expected:

- (a) users of Gramoxone and bystanders would be exposed to Gramoxone Products during mixing and tank loading of sprayers, including by way of spills, splashes and leaks;
- (b) persons spraying Gramoxone and persons in or near areas where Gramoxone was being sprayed or had been sprayed would be exposed to Gramoxone Products, including through spray drift (the movement of herbicide spray droplets from the target area to an area where herbicide application is not intended, usually by wind and contact with sprayed plants);
- users of Gramoxone and bystanders would be exposed to Gramoxone Products,
 including through spills, splashes and leaks, while the equipment used to spray
 Gramoxone was being emptied or cleaned, or while nozzles, lines or valves were
 plugged;
- (d) Paraquat could enter the human body by absorption or penetration through the skin, mucous membranes and other tissues, including tissues of the mouth, nose and nasal passages, trachea and respiratory tract, including cuts, abrasions, rashes, wounds or other tissue damage;
- (e) Paraquat could enter the human body by breathing into the lungs, including the deep parts of the lungs where respiration (gas exchange) occurs;
- (f) Paraquat could enter the human body by ingestion through the digestive tract of small droplets swallowed after entering the mouth, nose or respiratory tract;

- (g) Paraquat that has entered the human body through ingestion in the gastrointestinal tract could enter the enteric nervous system (the part of the nervous system that regulates the function of the gastrointestinal tract);
- (h) Paraquat that has entered the human body, either by absorption, respiration or ingestion, could enter the bloodstream;
- Paraquat that has entered the bloodstream could enter the brain, either through the blood-brain barrier or through parts of the brain not protected by the blood-brain barrier; and
- (j) Paraquat that has entered the nose and nasal passages could enter the brain through the olfactory bulb (a part of the brain involved in the sense of smell), which is not protected by the blood-brain barrier.

THE RISKS

Parkinson's disease

21. Parkinson's disease is a neurodegenerative brain disease the primarily affects the motor system, the part of the central nervous system that controls movement. It is a progressive disorder, which means that the symptoms of the disease worsen over time. There is no cure for Parkinson's disease.

22. Scientists that study Parkinson's disease generally agree that there are two forms: (i) familial (inherited); and (ii) idiopathic/sporadic, which develops from a combination of factors

including environmental factors such as exposure to pesticides or herbicides. The idiopathic/sporadic form is thought to account for more than 90% of cases.

23. The prevalence of Parkinson's disease and the severity of its symptoms increase with age, with most cases developing between the ages of 60 and 65.

24. The characteristic symptoms of Parkinson's disease consist of "primary" motor symptoms: resting tremor (jerking movement when muscles are relaxed), bradykinesia (slowness of voluntary movement and reflexes), rigidity (stiffness and resistance to passive movement), and postural instability (impaired balance). However, by the time these characteristic symptoms become apparent, significant neurological damage has already occurred—70-80% of neuronal death occurs before clinical symptoms appear.

25. The primary motor symptoms of Parkinson's disease often translate into "secondary" motor symptoms, such as freezing of gait, narrowing of writing, masked expression, slurred speech, monotony, quiet voice, stooped posture, muscle spasms, impaired coordination, difficulty swallowing, and excess saliva and drooling caused by reduced swallowing movements.

26. Non-motor symptoms, such as loss or impairment of sense of smell, constipation, low blood pressure on rising, sleep disturbances and depression, are present in most cases of Parkinson's disease, often for years before the first motor symptoms appear.

27. The most prescribed treatments for these motor symptoms tend to become progressively less effective and cause undesirable side effects the longer they are used.

Paraquat and Parkinson's Disease

Paraquat Toxicity

28. Paraquat is highly toxic at the cellular level; it damages, destroys and injures by creating oxidative stress that causes or contributes to cell degeneration and death. Paraquat creates oxidative stress in cells due to its oxidative-reductive properties (hereafter, "redox properties") inherent in its chemical composition and structure. The redox properties of paraquat have been known to scientists since (at least) the 1930s.

29. A redox reaction is a chemical reaction in which electrons are transferred. Paraquat is a strong oxidant and readily undergoes redox cycling in the presence of molecular oxygen, which is abundant in living cells. The redox cycling of paraquat in living cells interferes with cellular functions that are necessary to sustain life—photosynthesis in plant cells, and respiration in animal cells.

30. The redox cycling of paraquat in living cells creates a reactive oxygen derivative known as the superoxide radical, a highly reactive molecule that can set off a series of chemical cascades that create other reactive oxygen derivatives that damage lipids, proteins and nucleic acids, molecules that are essential components of living cell structures and functions.

31. Because the paraquat redox cycle can repeat indefinitely in living cells, a single paraquat molecule can trigger the production of countless destructive superoxide radical molecules.

32. Scientists have also known since at least the 1960s that paraquat is toxic to plant cells because it creates oxidative stress through the redox cycle.

33. Paraquat has adverse effects on the nigrostriatal dopamine system (at the cell base of neurons, involved in the initiation of voluntary movements). In effect, paraquat enters the brain and activates on the surface of microglia (a type of nerve cell located in the brain and spine), creating superoxide that can then enter surrounding neurons. Dopaminergic neurons (dopamine-producing nerve cells), which are very sensitive to oxidative stress, become prime targets for paraquat. This oxidative stress contributes to the degradation of lipids and, potentially, to the death of dopaminergic neurons in the substantia nigra (the nucleus of the nervous system) through the redox cycle.

34. The redox properties of paraquat and its strong oxidative capabilities have been linked to Parkinson's disease.

Physiopathology of Parkinson's disease

35. The degeneration and selective death of dopaminergic neurons in a part of the brain called the substantia nigra pars compacta ("SNpc") is one of the main pathophysiological characteristics of Parkinson's disease.

36. Dopamine is a neurotransmitter (a chemical messenger that transmits signals from one neuron to another neuron, muscle cell or glandular cell) that is essential for controlling motor functions in the brain. The death of dopamine neurons in the SNpc decreases dopamine production and the dead dopamine neurons are not replaced.

37. When enough dopamine neurons have died, dopamine production falls below the level the brain needs to properly control motor functions, resulting in the motor symptoms of Parkinson's disease. Dopaminergic neurons are particularly sensitive to oxidative stress.

38. Oxidative stress is a major factor, if not the precipitating cause, of the degeneration and death of dopaminergic neurons in the SNpc, which is the major pathophysiological feature of Parkinson's disease.

39. *In vivo* and *in vitro* studies (known to the Defendants but unknown to the public-at-large and the Class Members) show that paraquat produces changes at the subcellular level associated with Parkinson's disease, including increased production of reactive oxygen derivative, aggregation of alpha-synuclein (an abundant protein in the human brain), and selective nigral damage. Paraquat exposure causes Parkinson's disease.

40. Epidemiological studies (known to the Defendants but unknown to the public-at-large and the Class Members) have linked paraquat exposure to Parkinson's disease, including multiple studies finding an increased risk of developing Parkinson's disease in populations exposed to paraquat compared to unexposed populations.

Paraquat Elsewhere in the World

41. Paraquat has been banned in many countries around the world, including the 27 member countries of the European Union, because of its harmful effects on health. Even before Paraquat was officially banned by court decision, several European Union member countries had already taken the decision to ban the active ingredient paraquat from their territory, including:

- (a) Sweden, in 1983;
- (b) Finland, in 1986;
- (c) Hungary, in 1991;

- (d) Austria, in 1993;
- (e) Denmark, in 1995; and
- (f) Slovenia, in 1997.

42. Germany, while not banning paraquat, did impose severe restrictions on its use in 1991. Several other countries have also banned paraquat from their territories or restricted its use.

Paraquat in Canada

Pest Control Products Act

43. In Canada, the manufacture, possession, handling, storage, transportation, importation, distribution and use of herbicides such as Gramoxone are governed by the *Pest Control Products Act* (the "*Act*"). The *Act* requires that all herbicides be registered with Health Canada's Pest Management Regulatory Agency (the "PMRA") prior to manufacture, possession, handling, storage, transportation, importation, distribution and/or use, unless otherwise authorized under the *Act*.

44. Herbicides such as Gramoxone are regulated in Canada to ensure that they pose minimal risk to human health and the environment. Therefore, as part of its registration process, the PMRA requires, among other things, a series of tests to assess the health and environmental risks and value of the herbicide product. The *Act* therefore requires the PMRA to conduct a risk-benefit analysis to determine whether an application should be accepted for registration.

45. Registration by the PMRA is not an assurance or conclusion of safety.

46. On July 27, 1962, the trademark Gramoxone was registered in Canada. On July 1, 1963, the Defendants obtained registration for Gramoxone (Registration No. 8661 - Liquid Herbicide with Gramoxone Wetting Agent), containing its active ingredient, paraquat.

47. On October 22, 2004, the PMRA published a Re-evaluation Note as part of the Proposed Acceptability for Continuing Registration PACR2004-41 on all products containing paraquat dichloride, including Gramoxone.

48. On March 29, 2006, the PMRA published Re-evaluation Decision RRD2006-13, which resulted in several mitigation measures on the end-use product labels, including the addition of a statement in the "Precautions" section regarding the wearing of coveralls over a long-sleeved shirt and long pants when applying with a backpack sprayer, not to apply during periods of dead calm, when winds are gusty or when wind speed is greater than 16 km/hr at 2 m above ground level at the treatment site. The same Re-evaluation Decision also proposed to replace the heading "Directions for Use" of the labels with the following:

"Rate and Method of Application: Apply 5.5 L GRAMOXONE Herbicide in 1100 L of water per sprayed hectare or 75 mL in 10 L of water per 100 m². Of this mixture, 550 mL will treat an area 1.75 m in diameter around a tree. Application of this product in fruit crops and shelterbelts must be made using low boom sprayers fitted with drift-reducing shrouds or shields. Follow manufacturer's recommendations for use of shrouds or shields with particular attention to maintaining the minimum allowable boom height. Use flat fan nozzles with the highest flow rate and lowest pressure that will provide good coverage, within the manufacturer's recommended range"

49. On August 27, 2015, the PMRA published Re-evaluation Note REV2015-10 titled "Special Review of Paraquat: Proposed Decision for Consultation" the reasons for concern in support of its re-evaluation being, *inter alia*, the risk of health effects that may result from

accidental occupational exposure and the potential risks to workers mixing and loading paraquat and applying it with a backpack sprayer.

50. On December 23, 2015, PMRA issued Re-evaluation Note REV2015-14 titled "*Special Review Decision: Paraquat*". In the decision, several mitigation measures were formulated, including the inclusion of the end-use product Gramoxone in the Restricted Class category, due to the toxicity profile of paraquat and the risk of accidental exposure, thus requiring users of the product to hold an appropriate certificate or permit before applying Gramoxone.

51. This same Re-evaluation Note also proposed an additional mitigation measure that required the Defendants to add recommendations on the Gramoxone label for additional personal protective equipment—chemical-resistant coveralls over long-sleeved shirt and pants, socks, shoes, chemical-resistant gloves, goggles, and either a respirator with a NIOSH-approved organic vapour cartridge with a pre-filter approved for pesticides or a NIOSH-approved canister approved for pesticides—to be worn during mixing, loading, applying, cleaning and repairing equipment.

52. The PMRA also proposed to add new acute risk warnings, toxicological information, revised first aid advice, additional precautionary statements and storage requirements to the label and to make label changes related to backpack and boom use and proposed to reduce the concentration of paraquat in the Gramoxone commercial formulation.

53. Notwithstanding the foregoing, as of November 2, 2016, the MSDS for Gramoxone contained no mention or clarification of the connection between exposure to its active ingredient, paraquat, and Parkinson's disease. As of November 24, 2016, the Gramoxone pamphlet

contained no mention or clarification of the risk between exposure to its active ingredient, paraquat, and Parkinson's disease.

54. On July 3, 2018, PMRA published an Information Memorandum informing the public that the registration of Gramoxone with its current concentration of paraquat had been cancelled, that the use-by date had been set for December 31, 2018, and that Defendants had submitted a new application for a new end-use formulation of Gramoxone. On June 22, 2018, the application for registration of this new Gramoxone end-use product (Registration Number 33125 - Gramoxone 200 SL) was accepted. The approved label for the new Gramoxone contained no mention or clarification in its primary or secondary display areas of the risk between exposure to Gramoxone Products and Parkinson's disease.

55. On September 30, 2020, the PMRA issued Re-evaluation Note REV2020-01 titled "Pest Management Regulatory Agency Re-evaluation and Special Review Work Plan 2020-2025" in which it indicated that the active ingredient paraquat would again be subject to re-evaluation in 2021-2022.

56. The Defendants knew or should have known of the risks associated with the use of and/or exposure to Gramoxone Products. Despite studies providing clear evidence of a link between the use and/or exposure to Gramoxone Products and Parkinson's disease (known to the Defendants but unknown to the public-at-large and the Class Members), the Defendants failed to adequately investigate through post-marketing studies, tests and trials or to warn users of the significant and irreversible risks.

RIGHTS OF ACTION

Battery

57. The Plaintiff has been diagnosed with Parkinson's disease after exposure to Gramoxone Products that were manufactured, distributed, and/or sold by the Defendants. The Defendants knew (or should have known) that exposure to paraquat caused Parkinson's disease. However, the Defendants placed Gramoxone Products into the stream of commerce without warnings to such effect. The Defendants knew that persons applying Gramoxone would absorb paraquat into their bodies. The Defendants therefore caused the Plaintiff to be exposed to a harmful substance, increasing the risk that he would develop Parkinson's disease.

58. The Plaintiff did not consent to an increased risk of Parkinson's disease, as the Defendants did not warn of this risk. The Plaintiff would not have exposed himself to Gramoxone Products if he had known it could cause Parkinson's disease. The Plaintiff did not consent to the Defendants' contamination of his body with paraquat.

59. The Defendants have at all times been willfully blind or recklessly indifferent to whether Gramoxone Products cause Parkinson's disease.

60. As a direct result of the Defendants' wrongful acts, the Plaintiff and the Class Members were exposed to Gramoxone Products. The Defendants caused a harmful substance to contaminate the Plaintiff and Class Members bodies without consent as to the risk that this substance could cause Parkinson's disease. Consequently, the Defendants have committed a battery against the Plaintiff and the Class Members. The Family Class Members have experienced personal and financial losses resulting from their family members' illness.

Negligence (Negligent Design)

61. At all material times, the Defendants owed a duty of care to the Plaintiff and Class Members to:

- (a) undertake sufficient studies and testing to determine whether Gramoxone
 Products were safe for those using and/or exposed to them, and whether they were
 suitable for their intended use in agriculture and horticulture;
- (b) design, manufacture, produce, promote, formulate, create, develop, design, sell and/or distribute Gramoxone Products after thorough and adequate pre- and postmarket testing;
- (c) adequately test Gramoxone Products to fully reveal the magnitude of the risks associated with their use and exposure, including, but not limited to, the increased risk of developing Parkinson's disease;
- (d) design and manufacture Gramoxone Products to ensure that they are at least as safe and effective as other herbicides on the market;
- (e) not assert that Gramoxone Products were safe and suitable for their intended use when, in fact, the Defendants knew or should have known that this was not the case;
- (f) conduct adequate testing to determine the extent to which exposure to Gramoxone
 Products was likely to occur through inhalation, ingestion, and absorption into the
 bodies of persons who used Gramoxone Products, were in the vicinity of

Gramoxone Products during their use, or entered the fields or orchards where it was sprayed or the areas near where Gramoxone Products were sprayed;

- (g) conduct adequate testing to determine the extent to which spray from Gramoxone
 Products was likely to drift, including their propensity to drift, the distance over
 which they were likely to drift, and the extent to which droplets of Gramoxone
 Products were likely to enter the bodies of those spraying Gramoxone Products,
 or others in the vicinity during or after spraying;
- (h) conduct adequate tests to determine the extent to which Gramoxone Products, when inhaled, ingested or absorbed into the bodies of people who use them, who are in the vicinity during their use, or who enter the fields or orchards where Gramoxone Products were sprayed or areas near such locations, are likely to cause or contribute to latent neurological damage that is both permanent and cumulative, and to what extent repeated exposures are likely to cause or contribute to clinically significant neurodegenerative disease, including Parkinson's disease, to develop after exposure; and
- (i) conduct adequate tests to determine the extent to which Gramoxone Products, when formulated or mixed with surfactants or other pesticides or used with other pesticides, and when inhaled, ingested, or absorbed into the bodies of persons using them, being in close proximity during their use, or entering fields or orchards where they was sprayed or in areas near where they sprayed, were likely to cause or contribute to both permanent and cumulative latent neurological damage, and the extent to which repeated exposures were likely to cause or

contribute to clinically significant neurodegenerative disease, including Parkinson's disease, to develop after exposure.

62. The Defendants breached the standard of care expected in the circumstances, and were therefore negligent in the research, development, design, manufacture, testing, distribution, sale and marketing of Gramoxone products by, *inter alia*:

- (a) failing to undertake sufficient studies and testing to determine whether
 Gramoxone Products were safe for those using and/or exposed to it and whether
 they were suitable for their intended use in agriculture and horticulture;
- (b) designing, manufacturing, producing, promoting, formulating, creating, developing, selling and/or distributing Gramoxone Products without thorough and adequate pre- and post-market testing;
- (c) failing to adequately test Gramoxone Products to fully reveal the magnitude of the risks associated with their use and exposure, including, but not limited to, the increased risk of developing Parkinson's disease;
- (d) failing to design and manufacture Gramoxone Products while ensuring that they are at least as safe and effective as other herbicides on the market;
- (e) asserting that Gramoxone Products were safe and suitable for their intended use when, in fact, the Defendants knew or should have known that this was not the case;

- (f) failing to conduct adequate testing to determine the extent to which exposure to Gramoxone Products was likely to occur through inhalation, ingestion, and absorption into the bodies of persons who used them, were in the vicinity of Gramoxone Products during their use, or entered the fields or orchards where Gramoxone Products were sprayed or the areas near where it was sprayed;
- (g) failing to conduct adequate testing to determine the extent to which the spray from Gramoxone Products was likely to drift, including their propensity to drift, the distance over which they were likely to drift, and the extent to which droplets of Gramoxone Products were likely to enter the bodies of those spraying them or others in the vicinity during or after spraying;
- (h) failing to conduct adequate testing to determine the extent to which Gramoxone Products, when inhaled, ingested or absorbed into the bodies of people who use them, who are in the vicinity during their use or who enter the fields or orchards where they was sprayed or areas near such locations, is likely to cause or contribute to latent neurological damage that is both permanent and cumulative, and to what extent repeated exposures are likely to cause or contribute to clinically significant neurodegenerative disease, including Parkinson's disease, to develop after exposure; and
- (i) failing to conduct adequate testing to determine the extent to which Gramoxone Products, when formulated or mixed with surfactants or other pesticides or used with other pesticides, and when inhaled, ingested, or absorbed into the bodies of persons using them, being in close proximity during their use, or entering fields or

orchards where they were sprayed or in areas near where it was sprayed, were likely to cause or contribute to both permanent and cumulative latent neurological damage, and the extent to which repeated exposures are likely to cause or contribute to clinically significant neurodegenerative disease, including Parkinson's disease, to develop after exposure.

63. At all material times, the Defendants knew or ought to have known that exposure to Gramoxone Products caused Parkinson's disease, and therefore creates a dangerous and unreasonable risk of injury to the Plaintiff and Class Members. Furthermore, the Defendants knew or ought to have known that further testing and study was required in order to assess the safety of Gramoxone Products.

Negligence (Failure to Warn)

64. At all material times, the Defendants also owed a duty of care to the Plaintiff and Class Members to:

- (a) inform the public of the risks associated with the use and/or exposure to Gramoxone Products;
- (b) properly and appropriately amend labels of Gramoxone Products in a timely manner, to reflect the numerous studies and information available on the association between paraquat and Parkinson's disease;
- (c) provide adequate instructions, guidance and safety measures to persons who could reasonably be expected to use and/or be exposed to Gramoxone Products;

- (d) provide directions for use that would have made it unlikely that Gramoxone Products would be inhaled, ingested or absorbed into the body by persons who used them, were in the vicinity of it during their use, or entered the fields or orchards where Gramoxone Products were sprayed or the areas near where Gramoxone Products were sprayed;
- (e) warn that when inhaled, ingested, or absorbed into the bodies of persons using them, being in close proximity during their use, or entering fields or orchards where they were sprayed or in areas near such locations, Gramoxone Products were likely to cause or contribute to latent neurological damage that was both permanent and cumulative, and that repeated exposures were likely to cause or contribute to clinically significant neurodegenerative disease, including Parkinson's disease, that would develop after exposure;
- (f) disclose to users and consumers of Gramoxone Products and the general public the increased risks associated with the use of and exposure to Gramoxone Products, including, but not limited to, the increased risk of developing Parkinson's disease;
- (g) adequately monitor, investigate, evaluate and follow-up on reports of potential risks, including Parkinson's disease, associated with Gramoxone Products;
- (h) provide adequate warnings about the increased risks, including Parkinson's disease, associated with Gramoxone Products, on their MSDS;

- (i) after becoming aware of the increased risks associated with Gramoxone Products,
 including Parkinson's disease, to issue adequate warnings to alert the public;
- (j) direct that Gramoxone Products be used in a manner that would have made them unlikely to be inhaled, ingested or absorbed into the bodies of persons who used them, who were in the vicinity of it during their use, or who entered the fields or orchards where Gramoxone Products were sprayed or the areas near where they were sprayed;
- (k) warn that when inhaled, ingested, or absorbed into the bodies of persons who used them, were in close proximity during their use, or entered fields or orchards where Gramoxone Products were sprayed or in areas near them, Gramoxone Products were likely to cause or contribute to latent neurological damage that was both permanent and cumulative, and that repeated exposures were likely to cause or contribute to clinically significant neurodegenerative disease, including Parkinson's disease, to develop after exposure; and
- to provide adequate warnings about the increased risks associated with their Gramoxone Products.

65. The Defendants breached the standard of care expected in the circumstances, and therefore were negligent in failing to take adequate and appropriate steps, in a timely manner, to warn users, including the plaintiff and class members, about the risks associated with use of and/or exposure to Gramoxone Products by, *inter alia*:

- failing to inform the public of the risks associated with the use and/or exposure to
 Gramoxone Products;
- (b) failing to properly and appropriately amend labels of Gramoxone Products in a timely manner, to reflect the numerous studies available on the association between paraquat and Parkinson's disease;
- (c) failing to provide adequate instructions, guidance and safety measures to persons who could reasonably be expected to use and/or be exposed to Gramoxone Products;
- (d) failing provide directions for use that would have made it unlikely that Gramoxone Products would be inhaled, ingested or absorbed into the body by persons who used them, were in the vicinity of it during their use, or entered the fields or orchards where Gramoxone Products were sprayed or the areas near where they were sprayed;
- (e) failing to warn that when inhaled, ingested, or absorbed into the bodies of persons using them, being in close proximity during their use, or entering fields or orchards where they was sprayed or in areas near such locations, Gramoxone Products were likely to cause or contribute to latent neurological damage that was both permanent and cumulative, and that repeated exposures were likely to cause or contribute to clinically significant neurodegenerative disease, including Parkinson's disease, that would develop after exposure;

- (f) failing to disclose to users and consumers of Gramoxone Products and the general public the increased risks associated with the use of and exposure to Gramoxone Products, including, but not limited to, the increased risk of developing Parkinson's disease;
- (g) failing to adequately monitor, investigate, evaluate and follow-up on reports of potential risks, including Parkinson's disease, associated with Gramoxone Products;
- (h) failing to provide adequate warnings about the increased risks, including
 Parkinson's disease, associated with Gramoxone Products on their MSDS;
- (i) after becoming aware of the increased risks, including Parkinson's disease, associated with Gramoxone Products, failing to issue adequate warnings to alert the public;
- (j) failing to direct that Gramoxone Products be used in a manner that would have made them unlikely to be inhaled, ingested or absorbed into the bodies of persons who used them, who were in the vicinity of it during their use, or who entered the fields or orchards where they were sprayed or the areas near where they were sprayed; and
- (k) failing to warn that when inhaled, ingested, or absorbed into the bodies of persons who used them, were in close proximity during their use, or entered fields or orchards where they was sprayed or in areas near them, Gramoxone Products were likely to cause or contribute to latent neurological damage that was both

permanent and cumulative, and that repeated exposures were likely to cause or contribute to clinically significant neurodegenerative disease, including Parkinson's disease, to develop after exposure.

66. At no time did Defendants disclose to Gramoxone users, consumers, and the general public the increased risks associated with exposure to Gramoxone Products, including, but not limited to the increased risk of developing Parkinson's disease. The Defendants knew or ought to have known that users of Gramoxone as well as the general public were unaware of the risks and the magnitude of the risks caused by exposure to Gramoxone Products.

67. Despite the Defendants' ability and means to investigate, study, and test Gramoxone Products, and to provide adequate warnings of the risks associated with them, the Defendants failed to do so.

68. The Plaintiff and Class Members did not know the nature and extent of the injuries, including Parkinson's disease, that could result from the intended and foreseeable uses of and/or exposures to Gramoxone and paraquat. They would not have allowed themselves to be subjected to Gramoxone exposure had they known of the risks.

69. The injuries, harm, and economic losses suffered by the Plaintiff and Class Members were caused by the negligence of the Defendants, their servants and their agents.

70. The Plaintiff pleads and relies upon the provisions of the *Negligence Act*.

Unjust Enrichment

71. The Defendants have been unjustly enriched as a result of the conduct alleged above. The Class Members have suffered a corresponding deprivation in the amount of the difference between the prices paid for Gramoxone and the prices which would have been paid in the absence of the Defendants' tortious acts.

72. Since the difference in price received by the Defendants from the Class Members resulted from the Defendants' tortious acts, there is and can be no juridicial reason justifying the Defendants retaining any part of it.

RELIEF SOUGHT

Damages

73. As a result of the Defendants' battery, the Plaintiff and Class Members are entitled to damages without proof of harm or loss.

74. As a result of the Defendants' battery and negligence, the Plaintiff and Class Members have suffered damages, including but not limited to pain, suffering and loss of enjoyment of life; loss of employment income and benefits; extraordinary past and future medical expenses; and any applicable out-of-pocket expenses.

75. As a result of the Defendants' battery and negligence, Family Class Members have suffered damages, including but not limited to expenses reasonably incurred for the benefit of family members who developed Parkinson's disease; the value of services provided to family members with Parkinson's disease; the expense of installing and maintaining furnishings to accommodate that family member; loss of support, guidance, care, and companionship; dependency losses; and co-habitation losses.

76. Some of the medical expenses for the Plaintiff and Class Members' treatment have been and will continue to be paid by the Ontario Health Insurance Plan and the respective provincial health insurers in other provinces. As a result of the Defendants' negligence, the various provincial health insurers have suffered and will continue to suffer damages for which they are entitled to be compensated by virtue of their rights of subrogation. The Plaintiff claims for these damages.

77. As a result of the Defendants' Unjust Enrichment, the Plaintiff and Class Members are entitled to restitution.

Punitive Damages

78. The Plaintiff and the Class claim aggravated and exemplary damages for the reckless and unlawful conduct of the Defendants.

79. The Plaintiff and Class claim for punitive damages as a result of the egregious, outrageous and unlawful conduct of the Defendants, and in particular, their callous and reckless disregard for the health and lives of those who use and/or are exposed to Gramoxone Products in Canada.

80. In particular, punitive damages are justified because of the extensive research linking paraquat to Parkinson's disease, which occurred over decades, and the Defendants' wilful blindness or reckless disregard for these studies. An award of punitive damages would help deter the Defendants and others from similar conduct in the future.

Disgorgement

81. Further, and in the alternative, the Plaintiff and Class plead the remedies of accounting and disgorgement of profits or revenues.

82. As a result of the Defendants' conduct described herein, the Plaintiff and Class Members have a legitimate interest in preventing the Defendants' profit-making activity and to have monetary relief assessed in an amount equal to the gross revenues earned by the Defendants, or the net income received by the Defendants or a percent of the proceeds from the sale of Gramoxone Products, as a result of the Defendants' conduct. As an expected and intended result of their unlawful conduct, the Defendants have profited and benefitted from sales of Gramoxone Products that would not have been made but for the unlawful conduct.

83. The Plaintiff pleads that there is a real and substantial connection between the subject matter of this action and the Province of Ontario.

84. The Plaintiff pleads and relies upon the provisions of the *Courts of Justice Act*.

SERVICE OUTSIDE OF ONTARIO

85. The Plaintiff pleads and rely on sections 17.02 (g) and (p) of the *Rules of Civil Procedure*, allowing for service *ex juris* of the foreign defendants. Specifically, this originating process may be served without court order outside Ontario in that the claim is:

(a) in respect of a tort committed in Ontario (rule 17.02(g)); and

(b) against a person carrying on business in Ontario (rule 17.02(p)).

August 6, 2021

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Court File No.: SUPERIOR COURT OF JUSTICE SUPERIOR COURT OF JUSTICE Proceeding commenced at Toronto Proceeding under the Class Proceedings Act, 199 STATEMENT OF CLAIM STATEMENT OF CLAIM STATEMENT OF CLAIM STATEMENT OF CLAIM STATEMENT OF CLAIM Toronto, Ontario M5C 1M3 Daniel Bach LSO# 52087E Tyler Planeta LSO# 71029M Tel: (416) 594-4376 Fax: (416) 594-4377

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