



FORCE OF NATURE | THE WHOLE TRUTH FROM AN INDEPENDENT PERSPECTIVE from  
National Organization Responding Against HUJE that seek to harm the Green Space Industry (NORAHG)

According to Dr. Joseph A. Schwarcz —

There are numerous substances, both natural and synthetic, that can WREAK HAVOC with the biochemistry of the human body.

Usually, IT IS SYNTHETIC SUBSTANCES THAT GET BLAMED FOR HEALTH CALAMITIES, despite the fact that, of the 60 million or so known chemicals in existence, only about one-tenth of one per cent are synthetic.

Yet synthetic chemicals are the ones that get most of the attention, and usually in a negative way.

We hear about « *Toxic Chemicals* » and « *Poisonous Chemicals* », usually in reference to pesticides, plastic components, cleaning agents or cosmetic ingredients.

Of course, ANY CHEMICAL CAN BE TOXIC depending on the extent and type of exposure, be it synthetic or natural.

There are numerous compounds, both natural and synthetic, which, if studied with great vigour, would raise concerns.

To get a picture of chemical diversity and complexity, consider something as simple as HONEY.

Use the HONEY to make cake and you will be generating dozens of more compounds, including hydroxymethylfurfural, a POTENTIAL CARCINOGEN !

The problem may not be synthetic chemicals as much as THE ZEAL WITH WHICH SOME RESEARCHERS ATTEMPT TO CONVERT AN ASSOCIATION INTO CAUSATION TO FIT AN IDEOLOGICAL AGENDA.



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# How Toxic Are The Toxins That Surround Us ?

January 27<sup>th</sup>, 2013

Dr. Joseph A. Schwarcz

The Gazette

Selected And Adapted Excerpts

Dr. Joseph A. Schwarz is the Director of McGill University's Office for Science and Society. He teaches a variety of courses in McGill's Chemistry Department and in the Faculty of Medicine with emphasis on health issues, including aspects of Alternative Medicine.

# The Wisdom of Dr. Joe Schwarcz

How Toxic Are The Toxins That Surround Us ?

## The Universe's Chemistry Laboratory

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We live in a large chemistry lab.

A very large one.

It's called the universe.

It may not have shelves with neatly labelled bottles, but everything in it is made up of chemicals.

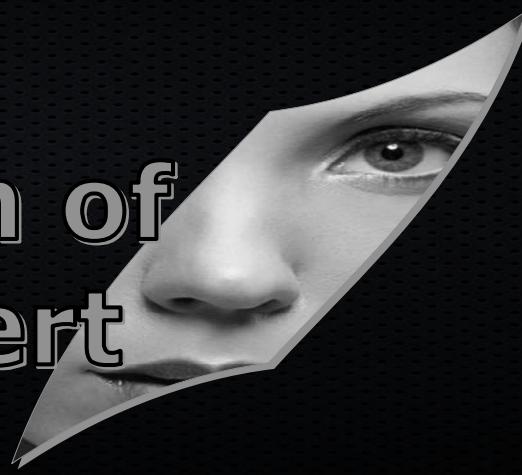
Including us.

We are nothing but a large bag of chemicals.

Thousands and thousands of them.

And they are constantly engaged in all sorts of reactions that, taken together, constitute life.

# The Wisdom of a REAL Expert



How Toxic Are The Toxins That Surround Us ?

## Goings-On In The Body

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Amino acids link to make proteins, glucose is « *burned* » to produce energy, DNA instructs cells to make enzymes, neurotransmitters are synthesized, hormones are cranked out, toxins are eliminated and thousands of other processes churn out a stunning array of biochemicals needed for survival.

It stands to reason that, when dealing with such a complex system, sometimes A WRENCH GETS THROWN INTO THE WORKS –

It may be ...

- a photon of ultraviolet light that causes a break in a strand of DNA
- a virus that takes over a cell's machinery
- a compound that disrupts hormonal function
- a bit of pollen that triggers inappropriate immune activity
- a bacterium that spews out toxins
- a metal ion that impairs nerve cells, or
- a chemical that causes cells to multiply irregularly.

The more one learns about the GOINGS-ON IN THE BODY, and about all the things that can go wrong, the more remarkable it becomes that anyone is ever healthy.

# The Wisdom of Dr. Joe Schwarcz



How Toxic Are The Toxins That Surround Us ?

## Health Calamities

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While sometimes the WRENCH THAT IS THROWN INTO THE WORKS can be identified, in most cases the specific trigger for a HEALTH CALAMITY remains a mystery.

Colds can be traced to a virus, an allergy may be pinpointed, and a bout of food poisoning may be linked to a bacterium.

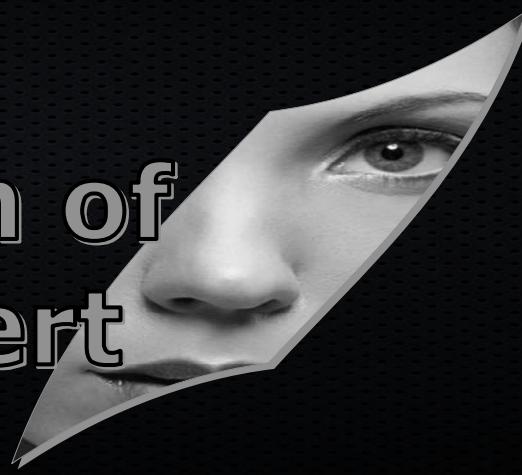
How Toxic Are The Toxins That Surround Us ?

## Substances That May Wreak Havoc With Our Biochemistry ?!?! ---

But determining what caused the damage to a molecule of DNA that eventually resulted in cancer decades later is another story.

- Acrylamide in the potato chips ?
- Aflatoxin. Was it a trace of aflatoxin on a mouldy peanut ?
- Aristolochic acid in a dietary supplement ?
- Arsenic in rice ?

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- Asbestos in the insulation ?
- Benzene from gasoline fumes ?
- Benzo(a)pyrene on that charred steak ?
- Chloroform in tap water ?
- Diesel exhaust on the street ?
- Estrogen. Could it have been the estrogen in the birth-control pill ?
- Formaldehyde in a cosmetic ?
- Naphthalene in mothballs ?
- Nitrosamines in hotdogs ?
- Pesticide residue on an apple?
- Phenylendiamine in hair dye ?
- Radon seeping into the basement ?
- Soot from the fireplace ?

Or was the cancer triggered by *Helicobacter pylori* bacteria, or the human papilloma virus ?

One could go on and on.

There are numerous substances, both natural and synthetic, that can WREAK HAVOC with our biochemistry.

# The Wisdom of Dr. Joe Schwarcz



How Toxic Are The Toxins That Surround Us ?

## Blaming Synthetic Substances

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Usually, IT IS SYNTHETIC SUBSTANCES THAT GET BLAMED, despite the fact that, of the 60 million or so known chemicals in existence, only about one-tenth of one per cent are synthetic.

Yet these are the ones that get most of the attention, and usually in a negative way.

How Toxic Are The Toxins That Surround Us ?

## Toxic & Poisonous Chemicals

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We hear about « *Toxic Chemicals* » and « *Poisonous Chemicals* », usually in reference to pesticides, plastic components, cleaning agents or cosmetic ingredients.

Of course, ANY CHEMICAL CAN BE TOXIC depending on the extent and type of exposure, be it synthetic or natural.

The MOST POTENT TOXIN KNOWN IS BOTULIN, produced by the *Botulinum clostridium* bacterium.

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A FEW BILLIONTHS OF A GRAM OF BOTULIN, way too small to be seen, CAN BE LETHAL.

Ricin found in castor beans — all it takes is an amount equivalent to HALF A GRAIN OF SAND.

How Toxic Are The Toxins That Surround Us ?

## Exposure To A Huge Array Of Chemicals

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The fact is we live in a fascinatingly complex chemical world.

Smell a cup of COFFEE and you sniff hundreds of compounds !

A whiff in the BATHROOM will add about 300.

A SINGLE MEAL will dump thousands and thousands of chemicals into your body, ranging from the proteins, sugars and fats that plants produce to allow their growth and development, to the pigments and scents they use to attract pollinators.

We are also EXPOSED TO A HUGE ARRAY OF CHEMICALS produced by industry, such as ...

- Degreasers
- Dry-Cleaning Compounds

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- Packaging Materials
- Paints
- Pesticides
- Plastic Additives
- Solvents

How Toxic Are The Toxins That Surround Us ?

## Honey – Onslaught Of Chemical Terms

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To get a picture of chemical diversity and complexity, consider something as simple as HONEY.

Everyone knows that basically it is composed of SUGAR and water.

But SUGAR is a general term for a variety of simple carbohydrates, the most familiar of which are sucrose, glucose and fructose.

But these are not the only SUGAR found in HONEY — not by a long shot.

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There's a long list of other SUGAR that includes —

- Gentiobiose
- Kojibiose
- Maltose
- Maltulose
- Nigerose
- Raffinose
- Turanose

and many more SUGAR.

Then there are proteins, amino acids and various enzymes that include invertase, which converts sucrose to glucose and fructose, and amylase, which breaks starch down into smaller units.

There's also glucose oxidase, which converts glucose to gluconolactone, which in turn yields gluconic acid and hydrogen peroxide.

Catalase breaks down the peroxide formed by glucose oxidase to water and oxygen.

HONEY also contains trace amounts of the B vitamins riboflavin, niacin, folic acid, pantothenic acid, and Vitamin B6.

HONEY also has ascorbic acid ( Vitamin C ) and the minerals calcium, iron, zinc, potassium, phosphorous, magnesium, selenium, chromium, and manganese.

# The Wisdom of Dr. Joe Schwarcz



Then, depending on what plants the bees have been visiting, there are all sorts of flavonoids, of which one, pinocembrin, is unique to honey and bee propolis.

There's still more.

HONEY contains organic acids such as acetic, butanoic, formic, citric, succinic, lactic, malic, and pyroglutamic acids.

Use the HONEY to make cake and you'll be generating dozens of more compounds, including hydroxymethylfurfural, a POTENTIAL CARCINOGEN !

How Toxic Are The Toxins That Surround Us ?

**Bisphenol A ( BPA ) – Not Likely Responsible For Horrors**

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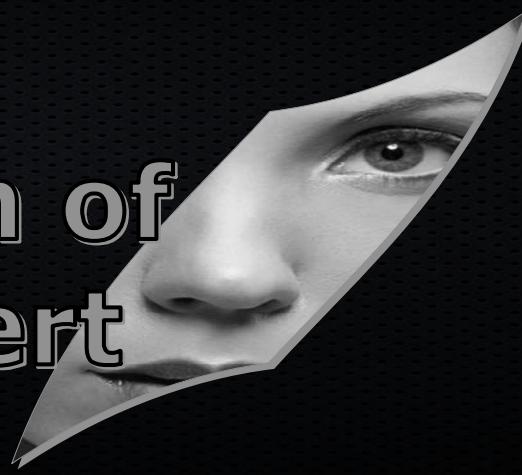
By now you are asking yourself if there is a point to this ONSLAUGHT OF CHEMICAL TERMS.

There is.

It has to do with yet another chemical.

And that is bisphenol A ( BPA ), the plastic component that is pilloried on a daily basis.

# The Wisdom of a REAL Expert



Bisphenol A ( BPA ) is said to cause ... Brain Tumours, Disruption of Dopamine Activity, Heart Disease, Breast and Prostate Cancer, Impairment of Fetal Development, Metabolic Syndrome, Miscarriage, Obesity, Reproductive Problems, Sexual Dysfunction, and Thyroid Problems.

Here is my question —

How can this one substance, bisphenol A (BPA), which chemically resembles so many of the thousands and thousands of compounds to which we are exposed on a regular basis, be RESPONSIBLE FOR ALL THESE HORRORS ?

I suppose it is possible, but I think it is NOT LIKELY.

I would suggest that there are numerous compounds, both natural and synthetic, which, if studied with as much vigour as BPA has been, would raise similar concerns.

The problem may not be BPA as much as THE ZEAL WITH WHICH SOME RESEARCHERS ATTEMPT TO CONVERT AN ASSOCIATION INTO CAUSATION TO FIT AN IDEOLOGICAL AGENDA — while ignoring the fact that NONE OF THE MORE THAN 6,000 STUDIES OF BPA HAS SHOWN THAT IT CAUSES HARM TO THE AVERAGE CONSUMER.

As Stephen Hawking said —

*The greatest enemy of knowledge is not ignorance, it is the illusion of knowledge.*

## Dr. Joseph A. Schwarcz's Biography

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Dr. Joseph A. Schwarcz is the Director of McGill University's Office for Science and Society.

Dr. Schwarcz teaches a variety of courses in McGill's Chemistry Department and in the Faculty of Medicine with emphasis on health issues, including aspects of Alternative Medicine.

Dr. Schwarcz is well known for his informative and entertaining public lectures on topics ranging from the chemistry of love to the science of aging.

Using stage magic to make scientific points is one of his specialties.

Dr. Schwarcz has received numerous awards for teaching chemistry and for interpreting science for the public.

Among these are the Royal Society of Canada's McNeil Award and the American Chemical Society's prestigious Grady-Stack Award.

Previous winners of the Grady-Stack have included famed science writer Isaac Asimov, New York Times columnist Walter Sullivan and Don Herbert of TV's « *Mr. Wizard* » fame.

Dr. Schwarcz is the only non-American ever to be honored with this prize.

His latest awards include the Royal Canadian Institute's Sandford Fleming Medal, the Society of Chemical Industry's Purvis Award, and the Chemical Institute of Canada's Montreal Medal.

## Dr. Joseph A. Schwarcz's Biography ( continued )

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Dr. Schwarcz has appeared as « *Dr. Joe* » hundreds of times on the Canadian Discovery Channel, TV Ontario, Global Television, CBC-TV, CTV-TV, and various radio stations.

Dr. Schwarcz hosts the « *Dr. Joe Show* » on Montreal's CJAD Radio every Sunday from 3-4 PM.

He also hosted « *Science To Go* », a series on the Discovery Channel that focused on common foods.

Dr. Schwarcz writes a weekly newspaper column in the Montreal Gazette entitled « *The Right Chemistry* », as well as a monthly column in Canadian Chemical News.

He was the chief consultant on the Reader's Digest best sellers « *Foods That Harm, Foods That Heal* » and « *The Healing Power of Vitamins, Minerals and Herbs* », and contributed the chemistry chapter to the best-selling « *Mental Floss* ».

His books « *Radar, Hula Hoops and Playful Pigs* », « *The Genie in the Bottle* », « *That's The Way The Cookie Crumbles* », « *Dr. Joe and What You Didn't Know* », « *The Fly in the Ointment* », « *Let Them Eat Flax* », « *Brain Fuel* », « *An Apple A Day* », « *Science, Sense and Nonsense* », « *Dr. Joe's Brain Sparks* », and his latest, « *Dr. Joe's Health Lab* » have all been best sellers.

The books have been translated into eleven languages and are sold around the world.

In November of 2011 the McGill Office for Science and Society under Dr. Schwarcz's directorship received the largest gift ever in Canadian history, 5.5 million dollars, from philanthropist Lorne Trottier to further its work in promoting scientific education and critical thinking.

# NORAHG

We are living in the 9|11 Era of Anti Pesticide Terrorism where at least ONE SUBVERSIVE ACT OF TERROR is Perpetrated EVERY SINGLE DAY by enviro lunatics.

We are living in the DARK AGE OF ANTI PESTICIDE TERRORISM where sound science is trumped by FAKE SCIENTISTS, JUNK SCIENCE and UNVERIFIABLE SECRET EVIDENCE through FABRICATION, INNUENDO, and INTERNET RUMOUR — scientific research PROVES that pest control products CAUSE NO HARM and can be USED SAFELY.

NORAHG is the National Organization Responding Against HUJE that seek to harm the Green space industry.

NORAHG morally represents the VAST SILENT MAJORITY of people associated with turf and ornamental plant maintenance who are OPPOSED to Anti Pesticide PROHIBITION and the CLOSURE of green spaces under the RIDICULOUS PRETEXT of somehow « saving » the environment.

NORAHG is a NATIONAL NON PROFIT NON PARTISAN organization that does not accept money from corporations or governments or trade associations, and represents NO VESTED INTERESTS WHATSOEVER.

NORAHG is dedicated to reporting the work of RESPECTED and HIGHLY RATED EXPERTS who promote ENVIRONMENTAL REALISM and PESTICIDE TRUTHS.

Anti Pesticide HUJE are enviro lunatics and lawn haters who particularly DESPISE the golf industry — they are Hateful Under-handed Jokes as Environmentalists who have been WRONG FOR OVER 50 YEARS.

There is NO RE COURSE but LITIGATION against these HUJE, as well as CANCELLATION of GOVERNMENT GRANTS and RELOCATION of the TAX EXEMPT STATUS of their organizations. HUJE should Get OFF Our grASS, and they should Roast In Hell.

Anti Pesticide HUJE are advised that all names, statements, activities, and affiliations have been ARCHIVED for eventual CRIMINAL CHARGES.

NORAHG manages The Library of Force Of Nature Reports and References for all Anti Pesticide Terrorist Acts of Subversion.

The NORAHG of Library Force Of Nature Reports and References is a VAST ARCHIVE of DOCUMENTS, AUDIO CLIPS, and VIDEOS on ALL Anti Pesticide Activities has been made AVAILABLE through NORAHG to anyone interested in LITIGATION.

These ARCHIVES contain names, statements, activities, and affiliations of ALL anti pesticide vermin, including government officials, as well as charitable prohibition terrorist organizations that DO NOT DESERVE ANY tax exempt status.

Interested parties need only to send NORAHG their REQUESTS for ANY INFORMATION needed in the War Against Lunatic Terrorist PROHIBITION.

NORAHG also produces FORCE OF NATURE, reports that present THE WHOLE TRUTH FROM AN INDEPENDENT PERSPECTIVE about environmental issues, including anti pesticide terrorism.

FORCE OF NATURE is a series of reports destined for the green space industry, the environmental terrorist movement, governments, and the media, nationwide across Canada, the United States, and overseas.

FORCE OF NATURE is committed to SOUND SCIENCE, as well as ground breaking original reporting that informs, entertains, and creates real change.

The Force Of Nature Series of Reports — Agriculture • ALBERTA Conspiracy • Bee Colony Collapse Disorder • Bee Colony Collapse Disorder • Benefits of the Turfgrass Industry • Beyond Pesticides • Books That Screwed Up the World • BRITISH COLUMBIA Conspiracy • Canadian Cancer Society • Canadian Association of Physicians for the Environment • CARNAGE and Consequences of Lunatic Terrorist Prohibition • Controversial Prohibitions • Culprits of the Prohibition Conspiracy • Daffodils, Toxic Pesticide Treated Flowers Soaked Formaldehyde • Dating Services for Enviro Maniacs • David Suzuki Foundation • DDT and Our World of Politicized Science • Death and Illness (Alleged) • Departure Letters • Ecojustice Canada • Energy Sector • Environmental Terrorists UNMASKED • Environmental Terrorist Organizations • Enviro PROFIT • Environmental Defence • FAILURE of IPM, Pesticide Manufacturers, Prohibition, Trade Associations • Famous Quotations About Enviro Lunatics • Fertilizer TERROR • Food and Farming • Get Off Our grASS • Global Warming, The Scam of Our Lifetime • Glyphosate Herbicide • Golf Industry • Green Alternatives • Green Party • Halloween Terror • Happy Holidays • Health Canada • Health Concerns with Pest Control Products • Heroes Speaking Out Against Environmental Terror • History of Environmental Terror in Canada • History of the Turfgrass Industry • Letters to the Editor • LIARS and Lying Sacks of (Enviro Maniac) Cwap • Mock Advertisements • Mock Speeches • Myth BUSTING • NATIONAL Prohibition • NEW BRUNSWICK Conspiracy • NO Prohibition Exception for AGRICULTURE Industry • NO Prohibition Exception for GOLF Industry • NOVA SCOTIA Conspiracy • North America Free Trade Agreement (NAFTA) • ONTARIO Conspiracy, Haven For Environmental Terrorists • Ontario College of Family Physicians • Organic Golf Courses • Organic Maintenance • Organizations of the Prohibition Conspiracy • Pesticide Q & A (Questions and Answers) • Positive Waves (Interesting and Innovative Thinking) • PRINCE EDWARD ISLAND (PEI) Conspiracy • QUEBEC

# NORAHG

Prohibition • Quotations About Enviro Lunatics & Maniacs • Rachel Carson, The Queen of Junk Science • SASKATCHEWAN Conspiracy • Satire, Laughs & Insanity • Terror That NEVER Ends • TERROR Talk and Weasel Words • THE AVENGERS • The Environmental Factor • The FAILURES of Green Alternatives, Organic Golf Courses, BROWN Golf Courses, Integrated Pest Management, Pesticide Free Parks, and Pesticide Manufacturers • The Ontario Trillium Foundation • The Industry STRIKES Back • The Wilhelm Scream • The Wisdom of REAL Experts • Tukey TERRORISM • TWISTED Precautionary Principle • United States Enviro TERRORISM • UPDATES • VICTORIES Against Terrorists • Video, Audio, and Slide Shows • VIOLATING Federal Law • VIOLATING Prohibition • WARNINGS • Weapons of Ultimate Environmental Terror • Wind Power (Bogus) • 2,4-D

The information presented in FORCE OF NATURE has been developed for the education and entertainment of the reader by providing a sequence of events WITH COMMENTARY, striving for accuracy in history, politics, and science.

FORCE OF NATURE is TOTALLY INDEPENDENT and provides NO guarantee regarding accuracy or completeness. In no event shall FORCE OF NATURE be liable for any incidental or consequential damages, lost profits, or any indirect damages.

NORAHG also produces A LOOK AT, a series of reports providing TECHNICAL INFORMATION on issues such as Career Management, Golf Course Maintenance, Green Alternatives, Summer Stress, Turfgrass Pests, and Turfgrass Species.

Finally, NORAHG frequently responds to anti pesticide activists in LETTERS TO THE EDITOR in newspapers across Canada and around the world.

All information, excerpts, and pictures contained in FORCE OF NATURE, A LOOK AT, and LETTERS TO THE EDITOR were retrieved from the Internet, and may be considered in the public domain.

FORCE OF NATURE, A LOOK AT, and their various incarnations, was the brainchild of William H. Gathercole and his colleagues in 1991. Mr. Gathercole is now retired, although his name continues to appear as founder.

Here is a brief summary of Mr. Gathercole's career —

Fields of study — Horticulture/Agriculture, Mathematics, Physics

Alma mater — McGill University • University of Guelph • the first person ever to obtain university degrees and contribute to both the professional lawn care and golf maintenance industries

Expertise in — environmental issues and anti pesticide terrorism • turf and ornamental maintenance and troubleshooting • history of the industry • sales and distribution of seeds, chemicals, fertilizers, and equipment • fertilizer manufacturing and distribution

Notable activities — worked in virtually all aspects of the green space industry, including golf, professional lawn care, distribution, environmental compliance, government negotiations, public affairs, and workplace safety • supervisor, consultant, and programmer for the successful execution of hundreds of thousands of management operations in the golf and urban landscape, as well as millions of pest control applications • advisor, instructor, and trainer for thousands of turf and ornamental managers and technicians • pesticide certification instructor for thousands of industry workers • founder of the modern professional lawn care industry • prolific writer for industry publications and e-newsletters • first to confirm the invasion of European Chafer insect in both the Montreal region and the Vancouver / Fraser Valley region • with Dr. Peter Dernoeden, confirmed the presence of Take All Patch as a disease of turf in Eastern Canada • with Dr. David Shetlar, confirmed the presence of Kentucky Bluegrass Scale as an insect pest in South Western Ontario, and later, in the Montreal and Vancouver regions

Special contributions — creator of the exception status that has allowed the golf industry to avoid being subjected to anti pesticide prohibition • creator of the signs that are now used for posting after application • co-founder of annual winter convention for Quebec golf course superintendents • the major influence in the decision by Canadian Cancer Society to stop selling for profit pesticide treated daffodils • the only true reliable witness of the events of anti pesticide prohibition in the town of Hudson, Quebec • retired founder of FORCE OF NATURE and A LOOK AT reports

Notable award — the very first man of the year for contributions leading to the successful founding of Quebec professional lawn care industry, which served as a beach-head against anti pesticide activists in the 1980s and 1990s

Legacy — Mr. Gathercole and his colleagues ... designed and implemented strategies that reined anti pesticide activists to provide peace and prosperity for the entire modern green space industry across Canada • orchestrated legal action against anti pesticide activists in the town of Hudson, Quebec • launched the largest founding professional lawn care business in Canada • quadrupled the business revenues of one of the largest suppliers in Canada

Mr. Gathercole is now retired, although his name continues to appear as founder of FORCE OF NATURE and A LOOK AT reports.



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