Court File No. 29437

IN THE SUPREME COURT OF CANADA
(ON APPEAL FROM THE FEDERAL COURT OF APPEAL)

B E T W E E N :

PERCY SCHMEISER, and
SCHMEISER ENTERPRISES LTD.

Appellants
(Appellants in the
Federal Court of Appeal)

- and -

MONSANTO CANADA INC., and
MONSANTO COMPANY

Respondents
(Respondents in the
Federal Court of Appeal)

COUNCIL OF CANADIANS, ACTION GROUP ON EROSION, TECHNOLOGY AND CONCENTRATION, SIERRA CLUB OF CANADA, NATIONAL FARMERS UNION, RESEARCH FOUNDATION FOR SCIENCE, TECHNOLOGY AND ECOLOGY, and INTERNATIONAL CENTRE FOR TECHNOLOGY ASSESSMENT;
THE CANADIAN CANOLA GROWERS ASSOCIATION;
AG-WEST BIOTECH INC.;
THE ATTORNEY GENERAL FOR ONTARIO;
THE CANADIAN SEED TRADE ASSOCIATION; and
BIOTECanada

Interveners

FACTUM OF THE INTERVENER
THE CANADIAN SEED TRADE ASSOCIATION

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1. On the present appeal, this Court is being asked to consider the patentability of genetically modified plant genes and cells, the extent to which claims to such plant genes and cells can be enforced against an alleged infringer which is growing an entire plant, and whether the alleged infringer may have an implied licence to grow seed saved from one year to plant crops in a future year. These issues are of vital importance to the Canadian seed industry, which is being represented on this appeal through this intervention by the Canadian Seed Trade Association (the "CSTA").

PART I - STATEMENT OF FACTS

2. Founded in 1923, the CSTA is a voluntary association composed of 165 seed companies from across Canada. The CSTA represents a broad cross-section of Canadian businesses that develop, produce and sell seed, and nearly all Canadian seed exporters. Membership ranges from those who market garden seed and herbs to the large western grain handlers, and from small family-run businesses to large multinational corporations with diverse interests. As companies with plant breeding programs, many of the CSTA's members are active in research and development and virtually all have an interest in intellectual property as the primary source of returns on their investment.

3. By the submissions which follow, the CSTA will seek to assist the Court in its analysis of issues in this appeal that relate to the patentability of plant cells and genes, and the proper scope of patents for plant cells and genes, especially as such patents apply to the acquisition and cultivation of plants, and the saving and planting of seeds.

PART II – POINTS IN ISSUE

4. The CSTA will address the following issues as raised in the Appellants' factum in this appeal:

(1) Whether or not genetically modified plant genes and cells are patentable subject matter under the *Patent Act*.

(2) If genetically modified genes and cells are the proper subject matter of a patent, whether or not a patent granted in relation to such genes and cells can properly be applied to control the reproduction of plants containing such modified genes and cells.

(3) Whether or not there is any implied licence to save and plant seeds containing patented genes and cells.

PART III – ARGUMENT

(1) Introduction

(a) The Canadian Seed Industry

5. Canada is an international leader in agriculture and agri-food. In tandem with its global expertise in agriculture, Canada is a leading producer of high-quality seed that is in strong demand. The Canadian seed industry is also the supplier of genetic innovation to farmers in Canada and abroad.

6. The Canadian seed industry produces a vast array of seed for sowing including grains, oilseeds, special crops, forage and turf grasses, flowers, vegetables, and fruits. The Canadian seed industry generates over $900 million in combined domestic and export sales every year. The total value of Canada's agricultural industry exceeds $100 billion.

International Seed Federation "Seed Statistics" online: International Seed Federation <http://www.worldseed.org/statistics.html> (date accessed: 16 December 2003) [Canadian Seed Trade Association Book of Authorities ("CSTA BA") Tab 17]

Agriculture and Agri-food Canada, "Agriculture: food and much more" online: Agriculture and Agri-food Canada <http://www.agr.gc.ca/cb/brochure/index.html> [CSTA BA Tab 10]

(b) Investment in Research and Development in the Canadian Seed Industry

7. Canada is known for its adoption of leading-edge technologies. Since 1987, the private sector's investment in research and development has nearly tripled from an investment of $33.2 million in 1987 to $92.5 million in 2001. The world headquarters for the canola breeding programs of several multi-national corporations, including Bayer CropScience, Monsanto, Advanta, and Pioneer, are located in Canada. These companies invest millions of dollars in Canada in research facilities, new technologies, and skilled employees.

Canadian Seed Trade Association, "Plant Breeders' Rights Delivering Research Results" (July, 2001) at 2, 4-5 online: Canadian Seed Trade Association <http://www.cdnseed.org/> [CSTA BA Tab 14] ("Delivering Research Results")

Canadian Food Inspection Agency *10-year Review of Canada's Plant Breeders' Rights Act* (Ottawa: Canada Food Inspection Agency, 2002) at 12 & 16 [CSTA BA Tab 12] ("*PBRA 10-year Review*")

8. Intellectual property plays a vital role in the continued growth and prosperity of the Canadian seed industry. Without appropriate protection mechanisms for seed and plant inventions, Canada may be unable to attract and maintain a thriving agricultural research community. Intellectual property protection also increases access to foreign varieties and makes them available to Canadian farmers. For example, canola varieties such as Impulse, Impact, Eagle, and many more were provided by foreign breeding institutions based on proper protection being available in Canada under the *Plant Breeders' Rights Act*.

Delivering Research Results, *supra* at 4 [CSTA BA Tab 14]

***PBRA 10-year Review, supra* at 10, 14 & 17 [CSTA BA Tab 12]**

(c) Canola is a Canadian Success Story

9. Canola was developed by methods of plant breeding from an oilseed crop known as rapeseed. Rapeseed was grown primarily to produce rapeseed oil which was used as an industrial lubricant. Efforts to breed rapeseed producing an oil suitable for human consumption began in the 1950s, but it was not until the 1970s that the work of Dr. Baldur Stephannson at the University of Manitoba, with further refinement by Dr. Keith Downey at Agriculture Canada, Saskatoon, led to the development of rapeseed having the nutritional characteristics of the crop known today as "canola". The name "canola" was applied to this crop starting in the late 1970s. The term is now a registered certification mark of the Canola Council of Canada which is applied to canola seed and products meeting defined quality parameters.

Canola Council of Canada, "Canola" at 4-5 & 20-21 online: Canola Council of Canada <http://www.canola-council.org/pubs/canola_pdfs.html> [CSTA BA Tab 15]

10. Canola is now Canada's largest oilseed crop, representing two-thirds of the total oilseed production. Canada's annual exports of canola, oil and meal are valued at over $2 billion. Canadian canola production contributes 75% of world trade in canola seed (for subsequent processing), 33% of world trade in canola oil, and 40% of world trade in canola protein meal.

Canola Council of Canada "Overview of Canada's Canola Industry" online: Canola Council of Canada <http://www.canola-council.org/about/overview.html> [CSTA BA Tab 16]

(d) Genetically Modified Crops

11. Genetically modified crops are becoming increasingly important to world agriculture in general, and Canadian agriculture in particular. The traits most commonly introduced by genetic

modification are resistance to insects and tolerance to herbicides.

12. In Canada, there has been widespread acceptance of genetically modified crops amongst farmers. Acreage of genetically modified crops has risen from virtually non-existent in 1995 to 3.5 million commercial hectares in 2002. Since 1999, plantings of genetically modified varieties of canola have increased by nearly 30%, and plantings of genetically modified soybeans have increased by nearly 15%. In 2002, genetically modified canola and soybeans accounted for 65% and 40%, respectively, of the total acreage grown in Canada.

James, C.,"Preview - Global Status of Commercialized Transgenic Crops: 2002" *ISAAA Briefs* No. 27-2002 (Ithaca, NY: International Service for the Acquisition of Agri-biotech Applications, 2002) at 7-8 [CSTA BA Tab 19] ("*ISAAA Report*")

Council for Biotechnology Information "Benefits of Biotech Crops have Fueled Rapid Growth in Canada" online: Council for Biotechnology Information <http://whybiotech.ca/canada-english.asp?id=3351> [CSTA BA Tab 17]

13. As of 2002, Canada ranked third among the world's top four leading countries growing genetically modified crops, contributing 3.5 million hectares of the global production total of 58.7 million hectares. The production of the other three countries of the top four (which make up 99% of global production) is as follows: United States, 39 million hectares; Argentina, 13.5 million hectares; and China, 2.1 million hectares. The global market value for genetically modified crops was $3.8 billion (USD) in 2001, $4.25 billion (USD) in 2002, and is predicted to reach $5 billion (USD) in 2005.

***ISAAA Report, supra* at 7-8 & 23 [CSTA BA Tab 19]**

(2) Submissions

Issue 1: Whether or not genetically modified plant genes and cells are patentable subject matter under the *Patent Act*.

14. In Part III.A of their factum, the Appellants have asserted that the subject-matter of the patent at issue in these proceedings falls outside of the *Patent Act*. In this regard, various arguments are advanced by the Appellants at paragraphs 44-66 of their factum. The CSTA submits that the following propositions, developed below, address many if not all of the Appellants' arguments:

(a) Plant genes and cells are patentable;

(b) Plants and seeds are patentable; and

(c) The *Plant Breeders' Rights Act* does not preclude the patentability of plant cells, genes or of whole plants.

(a) Plant Genes and Cells are Patentable

15. The claims at issue in the present appeal are directed to genetically modified plant genes and cells which are glyphosate tolerant.

16. In accordance with the decision of this Court *Harvard College* v. *Canada (Commissioner of Patents)* ("*Harvard*"), and the prior jurisprudence, including the decision of the Patent Appeal Board in *Re Application of Abitibi Co.* ("*Abitibi*"), plant genes and cells are patentable subject matter under the Canadian *Patent Act*.

***Harvard College* v. *Canada (Commissioner of Patents)*, [2002] 4 S.C.R. 45, *per* Bastarache J. for the Majority at paras. 162, 197-198, and *per* Binnie J. for the Minority at para. 3 [CSTA BA Tab 7] ("*Harvard*")**

***Re Application of Abitibi Co.* (1982), 62 C.P.R. (2d) 81 (Patent Appeal Board and Commissioner of Patents) [CSTA BA Tab 8] ("*Abitibi*")**

See also: Factum of the Respondents, paras. 79-84

17. Plant cells are probably not "life forms" at all, as that term is normally understood, although they are living matter. Plant genes are neither life forms nor living matter; genes are complex chemical compositions that are found in all life forms.

***Van Nostrand's Scientific Encyclopedia*, 8th ed. (New York: Van Nostrand Reinhold, 1995) at 1423-1430 *s.v.* "Genetics and Gene Science"[CSTA BA Tab 21]**

18. In any event, in *Harvard*, the Majority of this Court accepted the analytical approach followed by the Canadian Patent Office wherein it divides life forms into the categories of unpatentable "higher life forms" and patentable "lower life forms". With respect to where the line between higher and lower life forms is to be drawn, the Majority state that, in the absence of a parliamentary response, they see "no reason to alter the line drawn by the Patent Office". The Patent Office assessed the application for the patent at issue in this appeal and found that the claims in issue were proper subject matter under the *Patent Act*, whether or not they are "life forms" at all.

(b) Seeds and Whole Plants are Patentable

19. The Appellants assert that the patent at issue operates no differently than a patent with claims covering a plant or a seed, and that, in the result, the Respondents are attempting to accomplish indirectly what they are prohibited from doing directly. This submission is based on the argument developed in paragraphs 49 through 55 of the Appellants' Factum, that the decision of this Court in *Harvard* stands for the proposition that plants are "higher life forms" and are therefore unpatentable. The Court may not find it necessary to deal with this issue. If this Court agrees with the Courts below that the reproduction of whole plants infringes claims of a patent that covers plant cells and genes, that is sufficient to dispose of the infringement issue. Nevertheless, the CSTA wishes to directly answer the Appellants' arguments in this regard.

20. Contrary to what is asserted by the Appellants, the judgment of the Supreme Court of Canada in *Harvard* does not preclude the patentability of whole plants or seeds.

21. Although in their reasons the Majority in *Harvard* seem to view both plants and animals as "higher life forms", it is clear that the Majority recognized that the issue before the Court did not extend to plants. In paragraph 204, the Majority in *Harvard* state as follows:

> Second, this appeal deals specifically with the issue of whether an animal (in particular a mammal) can be considered to be a "composition of matter" or "manufacture".

***Harvard, supra*, *per* Bastarache J. for the Majority at para. 204 [CSTA BA Tab 7]**

Clearly, the issue of the patentability of genetically modified plants was not before the Court, and was not decided by it. As an authority, the judgment in *Harvard* therefore stands only for the proposition that a transgenic mouse or mammal is a "higher life form" which is not an "invention" and which is therefore inherently unpatentable. Any comments of the Majority that appear to equate plants and animals in this regard are *obiter*.

22. With respect to the specific characteristics that distinguish a "higher life form" from a "lower life form", the reasons of the Majority provide only limited guidance:

(a) in paragraph 161, the Majority use the terms "conscious" and "sentient" to characterize higher life forms;

(b) in paragraph 200, again with reference to higher life forms, the Majority use the phrase "complex intelligent life forms";

(c) in paragraph 202, the Majority, in referring with approval to *Abitibi*, the Majority quote the observation in *Abitibi* that micro-organisms are produced "*en masse* as chemical compounds are prepared, and are formed in such large numbers that any measurable quantity will possess uniform properties and characteristics", and observe that "[t]he same cannot be said for plants and animals.";

(d) in paragraph 204, the Majority use the phrase "capacity to display emotion and complexity of reaction and to direct behaviour in a manner that is not predictable as stimulus and response", again, with reference to higher life forms, and in the same paragraph quote the phrase "sentient and conscious" in the same context.

***Harvard, supra*, *per* Bastarache J. for the Majority at paras. 161, 200, 202, and 204 [CSTA BA Tab 7]**

23. None of the criteria cited by the Majority suggest that plants are higher life forms and therefore unpatentable. A plant is nothing more than the totality of its cells. There is no significant difference in any material respect between a plant cell, a plant seed and a plant. In particular, plants are not "conscious" or "sentient", they do not display "emotion" or "complexity of reaction", and their behaviour is entirely "predictable as stimulus and response". Plants are typically produced *"en masse*" and are typically formed "in such large numbers that any measurable quantity will possess uniform properties and characteristics" (in this regard, one has only to consider a field of wheat, a lawn, or a tree farm). Finally, plants certainly cannot be characterized as "intelligent".

***Van Nostrand's Scientific Encyclopedia, supra* at 582-587 *s.v.* "Cell", and 2802 *s.v.* "Seed" [CSTA BA Tab 21]**

24. Moreover, based on the characteristics applied by the Majority in *Harvard*, plants and seeds are not inherently, nor in any material way, distinguishable from other subject matter which the Patent Office has accepted as patentable, such as micro-organisms, yeasts, moulds, fungi, bacteria, actinomycetes, unicellular algae, cell lines, viruses or protozoa. To take but one example, fungi (such as yeasts) and other eucaryotes, which the Patent Office acknowledges are patentable, contain numerous discrete and highly organized organelles and membranes having unique and complex functions. Principal structures of eucaroytic cells include mitochondria, plasma membranes, endoplasmic reticulum, cytosol, golgi apparatus, a filamentous cytoskeleton,

a nucleus, lysosomes and peroxisomes, centrioles, etc. A seed, or even a whole plant, is no more complex.

> ***Abitibi, supra* at 89 [CSTA BA Tab 8]**
>
> **Canadian Intellectual Property Office, *Manual of Patent Office Practice* (March 1998) at 16.05 [CSTA BA Tab 13]**
>
> ***Van Nostrand's Scientific Encyclopedia, supra* at 34 *s.v.* "Actinomycosis", 87-92 *s.v.* "Algae", 316-320 *s.v.* "Bacteria", 582-587 *s.v.* "Cell", 1373-1378 *s.v.* "Fungus", 2567-2569 *s.v.* "Protozoa", 2802-2804 *s.v.* "Seed", 3225-3229 *s.v.* "Virus", and 3365-3369 *s.v.* "Yeasts and Molds" [CSTA BA Tab 21]**

25. In the result, with the issue of their patentability now placed before this Court, it should confirm that plants and seeds are patentable.

(c) The *Plant Breeders' Rights Act* does not preclude the patentability of plant cells, genes or of whole plants

26. The existence of the *Plant Breeders' Rights Act* does not preclude the patentability of plant cells and genes or of whole plants and seeds. Different forms of intellectual property protection may coexist for the same subject-matter, provided the pre-requisites for obtaining each intellectual property right are met.

27. The intellectual property regimes of Canada's major trading partners, including the Unites States, the European Union, Japan, and Australia, provide both plant breeders' rights and patent protection in respect of innovations relating to plants and plant varieties.

> **Canadian Biotechnology Advisory Committee, *Biotechnology and Intellectual Property: Patenting of Higher Life Forms and Related Issues* (November 2001), Annex F [CSTA BA Tab 11] ("*CBAC Report*")**

28. That the *Plant Breeders' Rights Act* and the *Patent Act* may coexist is developed further in the submissions of the Respondent, and the Interveners the Canadian Canola Growers' Association, Ag-West Biotech, Inc., and BIOTECanada.

Issue 2: If genetically modified genes and cells are the proper subject matter of a patent, whether or not a patent granted in relation to such genes and cells can properly be applied to control the reproduction of plants containing such modified genes and cells.

29. In Part III.B of their factum, the Appellants assert that if the Respondents' patent is valid, it should be given a narrower scope. An aspect of the Appellants' argument is that they did not infringe the Respondents' patent by growing canola plants possessing the claimed genes and

cells. The CSTA submits that claims to plant cells and genes are infringed by the reproduction of the cells and genes through the natural reproduction of plants.

30. The reproduction of plants and sale of plant products necessarily involves the "use", "making" and "sale" of the patented cells and genes. In particular, the cells and genes are used by the farmer when seeds containing the cells and genes are planted and cultivated; more cells and genes are made when the seed grows into a plant; and the cells and genes are sold when the product derived from the crop containing the cells and genes is sold.

31. In this regard, the *Patent Act* makes no distinction between patents in relation to cells and genes, and those in relation to any other kind of living or non-living matter. Parliament has exempted certain conduct from patent infringement in the *Patent Act*, but no exemption is provided which would apply to excuse the Appellants from infringement in the present case.

***Patent Act*, R.S.C. 1985, c. P-4, sections 55.2, 56, and 65 *et seq.* [CSTA BA Tab 15]**

32. Moreover, the World Trade Organization's *Agreement on Trade Related Aspects of Intellectual Property Rights* (TRIPS), to which Canada is a signatory, provides as follows:

> 1. … patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve and inventive steps and are capable of industrial application. … patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced. [emphasis added]

***Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods*, (1994) 25 I.I.C. 209, Article 27(1) [CSTA BA Tab 1]**

The terms of TRIPS were implemented in the Canadian *Patent Act* by amendment in 1994.

***World Trade Organization Agreement Implementation Act*, S.C. 1994 c. 47 [CSTA BA Tab 6]**

33. In summary, there is no basis to apply the law of infringement any differently to living matter such as cells, or biological chemicals such as genes, than to any other type of subject matter.

Issue 3: Whether or not there is any implied licence to save and plant seeds containing patented genes and cells.

34. In Part III.C of their factum, the Appellants assert that they should have been granted an implied licence to save seeds from one canola crop to plant crops in subsequent years, irrespective of any patent. The CSTA submits that no such licence exists, nor is there any basis to interpret the *Patent Act* to imply such a licence.

35. In the absence of a specific legislative direction from Parliament, there is no basis to infer any special licence to make, use or sell patented plant cells or genes, any more than to make, use or sell any other patented invention. As noted in the preceding section, while Parliament has provided for certain exemptions from infringement in the *Patent Act*, such exemptions have no application in the present case.

36. Moreover, the Appellants assert that their activities were legal as an exercise of "farmers' seed saving rights", pointing to *The Convention on Biological Diversity* (the "*CBD*"), and the *Plant Breeders' Rights Act* as support for the existence of such a right. In addition, it appears that the group of interveners led by the Council of Canadians will advance the argument that to interpret the *Patent Act* in a manner which discourages the practice of saving and exchanging seed is contrary to international law in view of the *CBD*, and the United Nations, Food and Agriculture Organization International Treaty on Plant Genetic Resources for Food and Agriculture (the "*Seed Treaty*"). With respect to these arguments, the CSTA submits as follows.

37. First, the concept of "farmers' rights" is specifically addressed in Part III, Article 9 of the *Seed Treaty*. What is contemplated by the *Treaty* in general, and by the provisions respecting farmers' rights in particular, are efforts to conserve plant genetic resources. The *CBD* is generally directed to the conservation of genetic resources.

> ***International Treaty on Plant Genetic Resources for Food and Agriculture*, 3 November 2001, FAO Conf., 31st Sess., Res. 3/2001, preamble, Article 9 [CSTA BA Tab 4] ("*Seed Treaty*")**
>
> ***Convention on Biological Diversity*, 5 June 1992, 31 I.L.M. 818, preamble [CSTA BA Tab 2]**

38. The record on the present appeal discloses that the Appellants periodically purchased canola seed (the last such purchase apparently being in 1993), and between such purchases, retained seed from each crop for planting the next year as part of their commercial farming

operation. Whatever activities have been undertaken by the Appellants in relation to the "development" of canola, they must be of relatively recent origin (i.e. since no earlier than the first breeding of canola in the 1970s). The simple saving of seed of a bred, non-naturally occurring plant variety for future planting in a commercial farming operation can hardly be said to be an effort advancing the conservation of plant genetic resources, and the reliance placed upon the *Seed Treaty* and the *CBD* by the Appellants and the Council of Canadians *et al.* as an aid to interpreting the *Patent Act* is misplaced.

39. Second, the *Seed Treaty* acknowledges that any rights that farmers have to save, use, exchange and sell farm-saved seed are subject to national law. Similarly, the obligations imposed by the *CBD* are made subject to national law. In the present case, any "right" that a farmer may have to save seed must be exercised within the limits imposed by Canadian patent law.

***Seed Treaty, supra* Articles 9.3 & 12.3(f) [CSTA BA Tab 4]**

***Convention on Biological Diversity, supra* Articles 8(j) & 16 [CSTA BA Tab 2]**

40. Finally, even in the context of plant breeders' rights, the right of a farmer to save seed is not without limits. The International Convention on Protection of New Varieties of Plants ("*UPOV*") provides for *sui generis* intellectual property regimes for the protection of new plant varieties and underlies Canada's *Plant Breeders' Rights Act*. Canada operates under the 1978 revisions to the Convention ("*UPOV 1978*"). Under the 1991 revisions to *UPOV* ("*UPOV 1991*"), contracting states may "*within reasonable limits and subject to the safeguarding of the legitimate interests of the breeder*, restrict the breeder's right in relation to any variety in order to permit farmers to use for propagating purposes, on their own holdings, the product of the harvest which they have obtained by planting, on their own holdings" [emphasis added]. Several countries which conform with *UPOV 1991* have implemented this optional restriction on the plant breeder's right by limiting the application of the exemption to certain species and to smaller farming operations. Any seed-saving exemption from patent infringement would require similar provisions to balance the legitimate interests of farmers and of patentees. The balancing of such interests is properly within the domain of Parliament, and not the Courts, and it is therefore inappropriate for this Court to imply an exemption from patent infringement as proposed by the Appellants.

***International Convention for the Protection of New Varieties of Plants of December 2, 1961, as revised at Geneva on November 10, 1 972, on October 23, 1978, and on March 19, 1991,* [1991] T.S. No. 5, Article 15 [CSTA BA Tab 3]**

Jordens, R., "Plant Biotechnology Developments In The International Framework" (WIPO-UPOV Symposium On Intellectual Property Rights In Plant Biotechnology, Geneva, 24 October 2003) at 9-10 [CSTA BA Tab 20]

41. In summary, there is no provision in the *Patent Act* which creates an implied licence for farmers to save and plant seeds where the activity would otherwise be an infringement of patent rights. Nor do international conventions such as the *Seed Treaty* and the *CBD*, nor the exemption from infringement for farm-saved seed under the *Plant Breeders' Right Act*, lead to the conclusion that the *Patent Act* should be interpreted in a manner which limits patent rights granted in relation to plants in the manner advocated by the Appellants.

(3) Conclusions

42. Canada has thriving seed and agricultural industries which enjoy international recognition for the adoption and development of leading-edge technologies in relation to seeds and crops. At stake on the present appeal is a seed industry worth almost $1 billion, and an agricultural industry worth over $100 billion.

43. However, for Canada to maintain and advance its position internationally, it must continue to protect intellectual property developed in relation to seeds and plants. A critical aspect of such intellectual property is the patent protection of plant genes and cells. On the basis of the present practices of the Canadian Patent Office, such protection is the only protection offered to innovation in the area of genetically modified plant genes and cells, such as the subject matter of the patent at issue on this appeal. To deny such protection threatens to place the Canadian seed industry at a competitive disadvantage in relation to Canada's major trading partners, including the United States, the European Union, Japan, and Australia which allow the patenting of plant genes and cells, and, indeed, of whole plants and seeds, under intellectual property regimes very similar to our own.

***CBAC Report, supra*, Annex F [CSTA BA Tab 11]**

See also: ***Théberge* v. *Galerie d'Art du Petit Champlain Inc.*, [2002] 2 S.C.R. 336 *per* Binnie J. for the Majority at para. 6 [CSTA BA Tab 9]**

***Harvard*, *supra*, *per* Binnie J. for the Minority at paras. 12-13 [CSTA BA Tab 7]**

44. For the reasons developed above, the CSTA submits that the following propositions should be confirmed on the present appeal:

(1) Plant genes and cells, and whole plants and seeds are patentable subject matter under the Canadian *Patent Act*;

(2) Claims to plant genes and cells can properly be applied to control the reproduction of plants containing such modified genes and cells; and

(3) The patent rights granted in respect of a patent containing claims to plant genes, plant cells, whole plants, or plants seeds are not limited by an implied licence or other "right" permitting farmers to save seed from one crop to plant in a subsequent year.

PART IV – SUBMISSIONS ON COSTS

45. The CSTA does not claim costs in respect of its intervention in the present appeal

PART V – ORDER REQUESTED

46. The CSTA takes no position in respect of the specific Order to be issued by the Court on this appeal.

RESPECTFULLY SUBMITTED this th day of December, 2003

A. David Morrow

Colin B. Ingram

Solicitors for the Canadian Seed Trade Association

CONTENTS